

KIL MASTAR



- DIN874 Standardına uygundur
- Pahlı kenar
- Sertleştirilmiş çelikten yapılmıştır
- Parlak krom kaplama

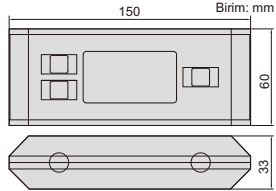


4700-100

Kod	Boyut (L)	Karesellik	(mm)	
			W	H
4700-50	50mm	2,2µm	5	20
4700-75	75mm	2,3µm	5	25
4700-100	100mm	2,4µm	5	25
4700-125	125mm	2,5µm	6	30
4700-150	150mm	2,6µm	6	30
4700-200	200mm	2,8µm	6	30
4700-250	250mm	3,0µm	8	40
4700-300	300mm	3,2µm	8	40
4700-400	400mm	3,6µm	10	50
4700-500	500mm	4,0µm	10	50

DİJİTAL TERAZİ VE AÇI ÖLÇER

- IP54 suya/toza karşı koruma
- Alüminyum çerçeve,
- Mil üstü kullanım için V-kanallı manyetik taban
- Yere olan açı kalıcı olarak ayarlanmıştır, pil değişiminde sıfırlama gerekmemektedir
- Tuşlar: AÇ/KAPA, mutlak ve sayarak artarak ölçme, BEKLET, ünite(mm/m, %, °)
- İki AAA pil, otomatik kapanma



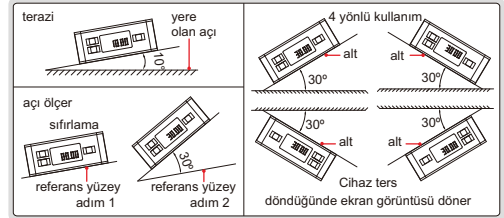
2179-360

IP54
SUYA/TOZA KARŞI KORUMA

**ABSOLUTE
LEVEL**

BACKLIGHT

**BUZZER ALARM
AT 0° AND 90°**



Kod	Ölçüm aralığı	Çözünürlük	Doğruluk	Liste Fiyatı	Satış Fiyatı
2179-360	0-360° (90°x4)	0,05° (=0,873mm/m)	0°ve 90°: ±0,1°; diğerleri: ±0,2°	154,00 \$	134,00 \$

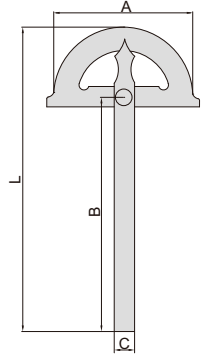
- Hassasiyet: 1°
- Paslanmaz çelikten yapılmıştır
(4799-1300 karbon çeliğinden yapılmıştır)
- Parlak krom kaplama skala
- Sıkma vidası ile tedarik edilir



4799-180

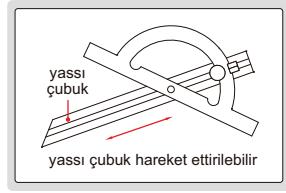
Kod	Boyut (AxB)	Ölçüm aralığı	Doğruluk	L	C
4799-180	80x120mm	0-180°	±0,3°	168mm	11mm
4799-1120	120x150mm	0-180°	±0,3°	220mm	14mm
4799-1150	150x200mm	0-180°	±0,3°	285mm	16mm
4799-1200	200x300mm	0-180°	±0,3°	413mm	20mm
4799-1300	300x500mm	0-180°	±0,3°	675mm	30mm

AÇI ÖLÇER

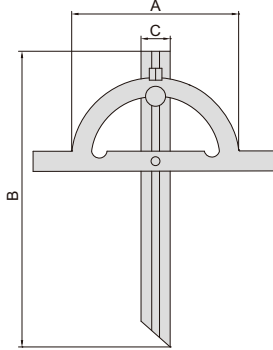


AÇI ÖLÇER

- Hassasiyet: 1°
- Karbon çelikten yapılmıştır
- Parlak krom kaplama skala
- Sıkma vidası ile tedarik edilir
- Yassı çubuk hareket ettirilebilir



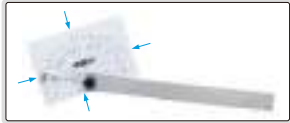
Kod	Boyut (AxB)	Ölçüm aralığı	Doğruluk	C
4797-100	100x150mm	10-170°	±0,3°	18mm
4797-150	150x300mm	10-170°	±0,3°	22mm
4797-200	200x400mm	10-170°	±0,3°	24mm
4797-250	250x500mm	10-170°	±0,3°	28mm
4797-300	300x600mm	10-170°	±0,3°	32mm



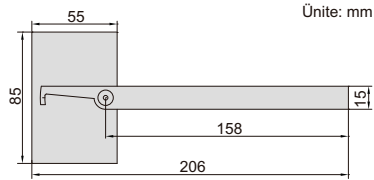
4797-100

AÇI ÖLÇER

4 kenar



- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplama skala
- Sıkma vidası ile tedarik edilir



4781-85

Kod	Boyut	Ölçüm aralığı	Hassasiyet	Doğruluk
4781-85	85x158mm	0 - 180°	1°	±0,3°

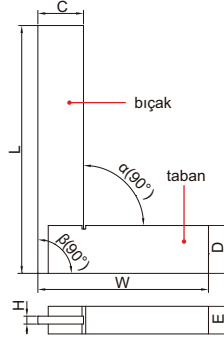
GENİŞ TABANLI ATÖLYE GÖNYESİ

DİKKAT: PAS ÖNLEYİCİ İŞLEM
YOKTUR SERTLEŞTİRİLMEMİŞTİR

DİKKAT:
DÜŞÜK HASSASİYET



4707-100



- Ekonomik model
- DIN875 standardı 2 kalite
- Karbon çeliğinden yapılmıştır, pas önleyici işlem yoktur, sertleştirilmemiştir

Kod	Boyut (LxW)	Karesellik		C	D	H	E
		İç (α)	Dış (β)				
4707-50	50x40mm	24 μ m	25 μ m	16	12	3	9
4707-75	75x50mm	26 μ m	28 μ m	16	16	3	9
4707-100	100x70mm	28 μ m	30 μ m	19	19	3	12
4707-150	150x100mm	33 μ m	35 μ m	25	25	3	16
4707-200	200x130mm	37 μ m	40 μ m	30	32	4	16
4707-250	250x165mm	42 μ m	45 μ m	30	32	4	19
4707-300	300x200mm	47 μ m	50 μ m	32	32	4	19
4707-400	400x250mm	56 μ m	60 μ m	38	38	5	22
4707-500	500x300mm	65 μ m	70 μ m	45	50	6	25
4707-600	600x350mm	75 μ m	80 μ m	50	50	6	30
4707-750	750x400mm	90 μ m	95 μ m	55	55	6	50
4707-900	900x500mm	103 μ m	110 μ m	65	75	9	50
4707-1000	1000x550mm	113 μ m	120 μ m	65	75	9	50

GÖNYE SETİ

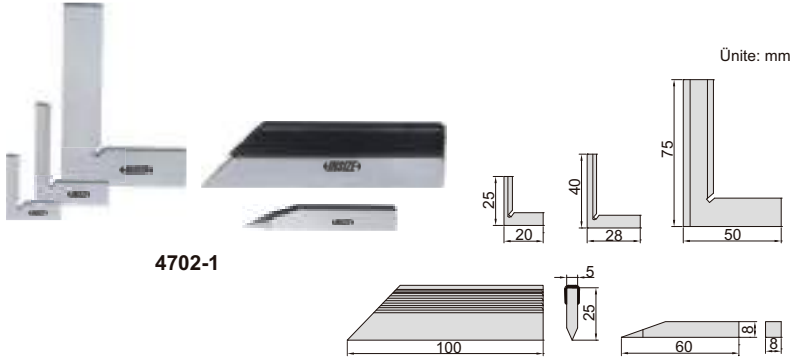
■ Aşağıdakileri içerir:

- 90° gönye 25x20mm,
DIN875 00 (kod **4794-025**) Standardına uygundur
- 90° gönye 40x28mm,
DIN875 00 (kod **4794-040**) Standardına uygundur
- 90° kıl gönye 75x50mm,
DIN875 00 (kod **4794-075**) Standardına uygundur
- Düz kenar DIN874 Standardına uygundur
(kod **4700-100**)
- Çizici

■ Sertleştirilmiş çelikten yapılmıştır

Kod

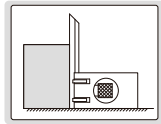
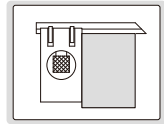
4702-1



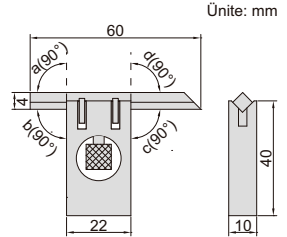
AYARLANABİLİR GÖNYE

- Düz kenar hareket edebilir vesıkma vidası ile kilitlenebilir
- Sertleştirilmiş çelikten yapılmıştır

Kod	Karesellik (a, b, c, d)
4701-1	7µm

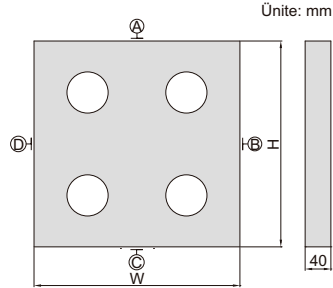


4701-1



GRANİT GÖNYE

ÖZEL YAPIM
MÜŞTERİNİN İSTEĞİNE GÖRE ÖZEL
BOYUTLARDA TEDARİK EDİLİR

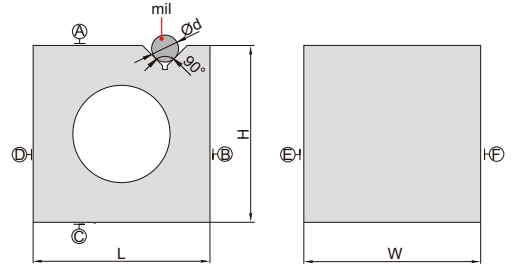


4144-315

Kod	Boyut (HxW)	A, B, C ve D Düzlüğü	A, B, C ve D arasındaki paralellik ve karesellik
4144-315	315x315mm	1,1µm	2,6µm

V KANALLI GRANİT GÖNYE

- A, B, C, D, E ve F arasındaki paralellik ve karesellik: 6 μ m
- A, B, C, D, E ve F'nin V kanalına olan paralellik ve karesellik: 6 μ m



4142-200

Kod	Boyut (LxWxH)	Mil aralığı (Ød)
4142-200	200x200x200mm	9~70mm

DIGITAL ANGLE METER CODE 2177-121



- Clockwise and counter-clockwise operation
- 9 target torque values can be set, with audible and visible alarm:
 - Green LED light on and buzzer sounds when torque value is 80%~99.5% of target torque
 - Both green and red LED light on and buzzer sounds when torque value is over 99.5% of target torque
- Memory of 250 results, can upload to the computer
- Back with magnet
- Power off in 2 minutes automatically



SPECIFICATION

Display range	1~999°
Setting range	1~360° (increment 1°)
Resolution	0.1°
Accuracy	±2° for 90° rotation @30°/sec
Power supply	2×1.5V AAA batteries
Dimension	58×58×41mm
Weight	70g



working with mechanical wrenches

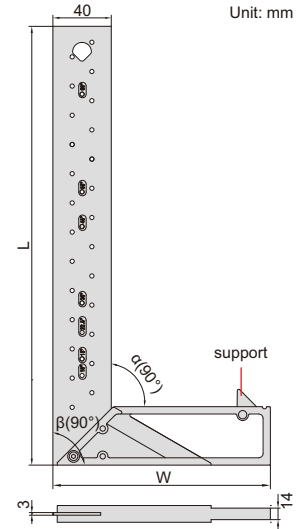
TRY SQUARE

- Graduation: 1mm
- Aluminum blade and base
- 4 milled surfaces
- Retractable metal ledge support
- Etchings and holes for beveling and framing:
10°, 15°, 22.5°, 30°, 45°, 50° and 60°
- Etchings and holes every cm for fluid pencil marking

Code	Size (LxW)	Squareness	
		Inside (α)	Outside (β)
2280-300	300x150mm	0.5mm	0.5mm

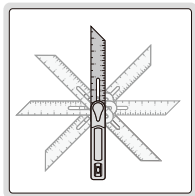


2280-300

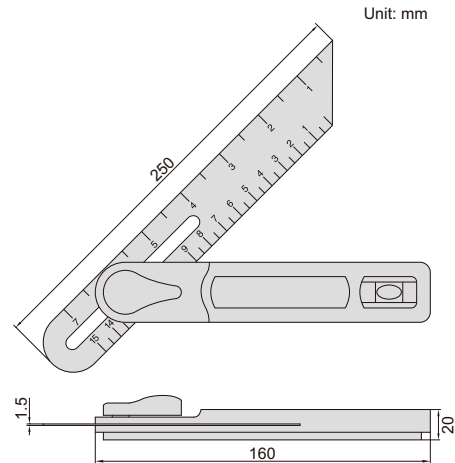


T-BEVEL

blade can rotate 360 °

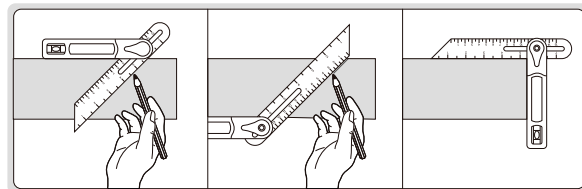


2281-360



- Easy-to-read vial
- The blade can move and can be locked by the clamping screw
- Stainless steel blade
- Tough rubber handle
- Centimeter/inch graduations

Code	Angle mark	Accuracy of angle
2281-360	15°, 30°, 45°, 60°, 90°	±1°



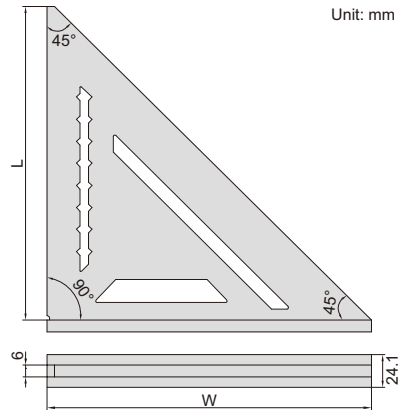
ANGLE SQUARE

- Length range: 0-7", graduation: 1/8"
- Angel range: 0-90°, graduation: 1°

Code	Size (L×W)	Accuracy of angle
2282-180	180×185mm	±0.3°



2282-180

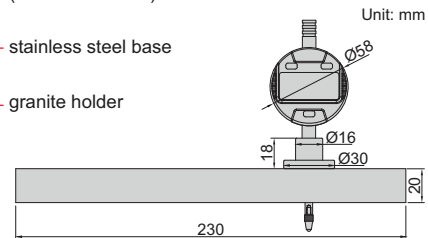
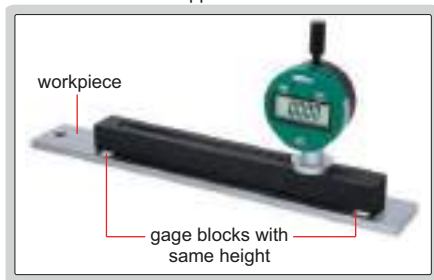


GRANITE HODLER CAN BE CUSTOMIZED
ACCORDING TO WORKPIECES

STRAIGHTNESS/FLATNESS GAGE



application



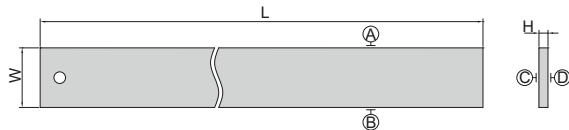
Code	Range	Digital indicator resolution	Straightness measurement accuracy	Parallelism of top and bottom surfaces of granite holder	Flatness of top and bottom surfaces of granite holder
2144-200	200mm	0.001mm/0.00005"	3µm	2µm	1.5µm

PRECISION STRAIGHT EDGES

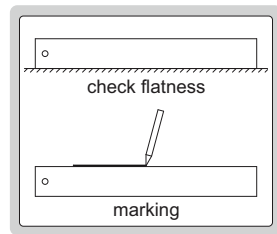


7117-300

- Check flatness and for marking
- Made of tool steel



Code	Range (L)	Flatness of A and B	Flatness of C and D	W	H
7117-300	305mm	0.005mm	0.05mm	41mm	6.3mm
7117-600	610mm	0.006mm	0.06mm	51mm	7.9mm
7117-900	914mm	0.007mm	0.06mm	64mm	9.5mm



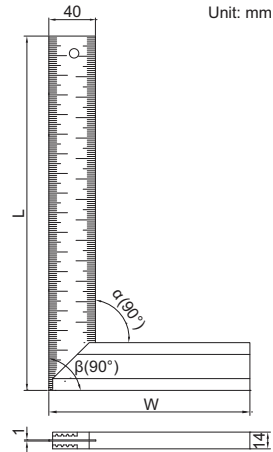
TRY SQUARE

- Graduation: 1mm
- Stainless steel blade, aluminum base

Code	Size (LxW)	Squareness	
		Inside (α)	Outside (β)
2275-300	300x170mm	0.5mm	0.5mm



2275-300



Unit: mm

MAGNALIUM 90° FLAT EDGE SQUARES WITH WIDE BASE

ATTENTION:
LOW ACCURACY

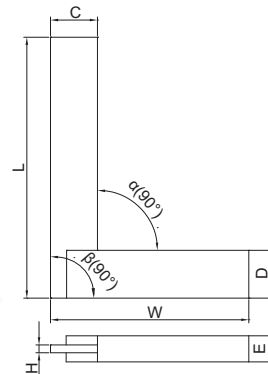
- Made of magnalium, light weight, non-deform, no rusty

(mm)

Code	Size (L×W)	Squareness		C	D	H	E	Weight
		Inside (α)	Outside (β)					
4705-630	630×400mm	107 μ m	113 μ m	40	60	18	40	5kg
4705-800	800×500mm	123 μ m	130 μ m	50	70	25	50	7kg
4705-1000	1000×630mm	143 μ m	150 μ m	50	70	25	50	9kg
4705-1250	1250×800mm	168 μ m	175 μ m	50	70	25	50	11kg
4705-1600	1600×1000mm	203 μ m	210 μ m	50	70	25	50	13kg
4705-2000	2000×1250mm	243 μ m	250 μ m	50	70	25	50	15kg
4705-2600	2600×1500mm	303 μ m	310 μ m	50	70	25	50	20kg



4705-630



MACHINIST SQUARES WITH WIDE BASE AND SCALE (ECONOMIC TYPE)

ATTENTION: NO ANTI-RUST
TREATMENT, NOT HARDEND

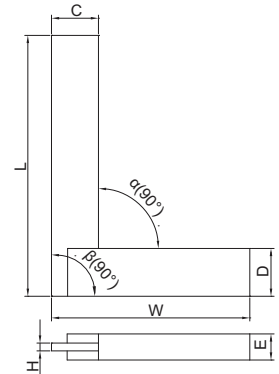
ATTENTION:
LOW ACCURACY

- DIN875 grade 2
- Made of carbon steel, no anti-rust treatment, not hardend

Code	Size (LxW)	Squareness		(mm)			
		Inside (α)	Outside (β)	C	D	H	E
4711-50	50×30mm	24 μ m	25 μ m	16	12	2.5	9
4711-75	75×50mm	26 μ m	28 μ m	16	16	2.5	9
4711-100	100×70mm	28 μ m	30 μ m	19	19	3	12
4711-150	150×100mm	33 μ m	35 μ m	25	25	3	16
4711-200	200×130mm	37 μ m	40 μ m	30	32	3	16
4711-250	250×165mm	42 μ m	45 μ m	30	32	3	19
4711-300	300×200mm	47 μ m	50 μ m	32	32	3	19
4711-400	400×200mm	56 μ m	60 μ m	38	38	4.5	22
4711-500	500×300mm	65 μ m	70 μ m	44	50	6	25
4711-600	600×350mm	75 μ m	80 μ m	50	50	6	30
4711-750	750×400mm	90 μ m	95 μ m	55	55	6	50



4711-100

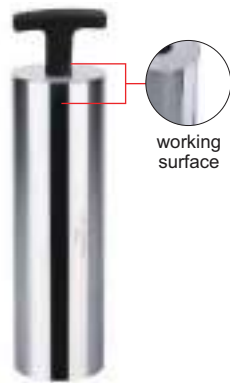


- Made of special alloy steel, hardness HRC58~60
- The handle can be removed

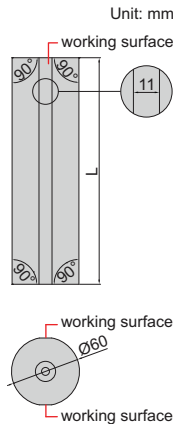
Code	Length (L)	Squareness
4710-200*	200mm	1μm
4710-300*	300mm	2μm

* Supplied with manufacturer inspection certificate

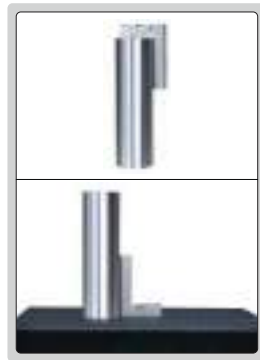
CYLINDER SQUARES



4710-200



inspect 90° internal
and external angles

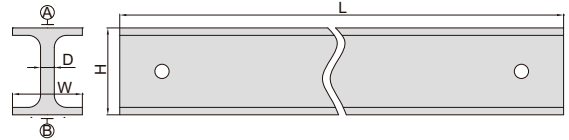


MAGNALYUM KIL MASTAR



4180-500

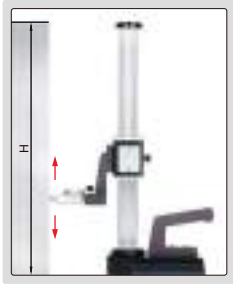
- Magnalyumdan yapılmıştır, hafif, deforme olmaz ve bükülmez



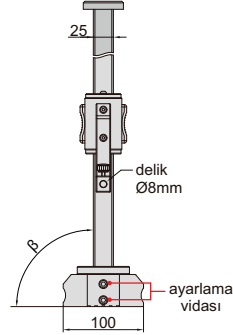
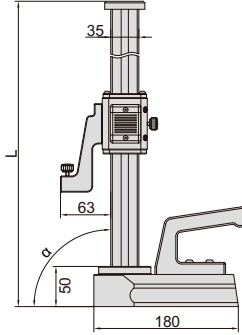
Kod	Uzunluk (L)	A ve B düzlüğü	A ve B arasındaki paralellik	H	W	D
4180-500	500mm	3 μ m	4 μ m	60mm	30mm	5mm
4180-1000	1000mm	5 μ m	8 μ m	60mm	30mm	5mm
4180-1500	1500mm	15 μ m	22 μ m	100mm	40mm	5mm
4180-2000	2000mm	18 μ m	27 μ m	100mm	40mm	8mm

DİKLİK KONTROL EDİCİ

Ünite: mm



- Opsiyonel aksesuar:
komparatör saati (hassasiyet: $1\mu\text{m}$ or $2\mu\text{m}$),
silindir daire (kod **4770**, kalibrasyon için)
granite daire (kod **4141**, kalibrasyon için)



Kod	Ölçüm aralığı (H)	Diklik (α)	Yan diklik (β)	L
4770-300	0-300mm	$3\mu\text{m}$	$10\mu\text{m}$	460mm
4770-600	0-600mm	$5\mu\text{m}$	$20\mu\text{m}$	760mm

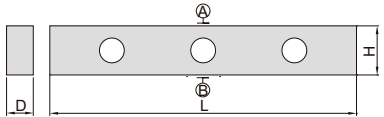
komparatör saati
dahil değildir



GRANİT KİL MASTAR



4147-500A



(mm)

Kod	Uzunluk (L)	A ve B düzlüğü	A ve B arasındaki paralellik	D	H
4147-500A	500mm	2,1µm	3,2µm	50	80
4147-1000A	1000mm	3µm	4,5µm	60	120

SU GEÇİRMEZ DİJİTAL AÇI ÖLÇER (AĞIR İŞ)

IP54
SUGECİRMEZ

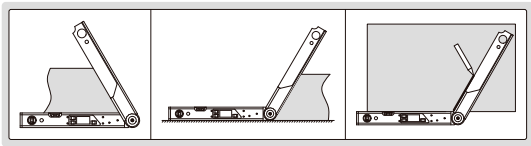
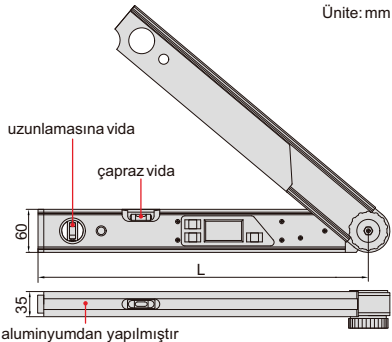
MUTLAK
TERAZİ

OTOMATİK
ARKA IŞIK

- Hem dikey hem yatay kullanılabilir kesme makinesinin gönye açısı
- Tuşlar: aç/kapa, sabitle (değer sabitleme), sıfırla, ABS
- IP54 toza/suya dayanıklı
- Çapraz ve uzunlamasına kapsül ile
- 2xAAA pil
- Mutlak terazi, sıfırlama gerektirmez piller değiştirilebilir
- Arka ışık, herhangi bir bilgi değişikliği olmadığı sürece bir dakika içinde kapanır veya 10 dakika içinde otomatik olarak kapanır



2174-225



Kod	Boyut (L)	Ölçüm aralığı	Çözünürlük	Doğruluk
2174-225	460mm	0-225°	0,05°	±0,10°

DİJİTAL AÇI ÖLÇER

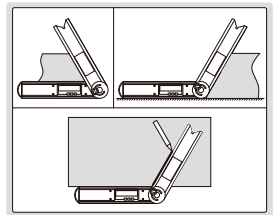
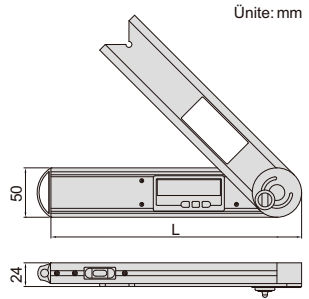


- Tuşlar: aç/kapa, sabitle (değer sabitleme), sıfırla, ABS (mutlak ve sayarak artarak ölçüm)
- Farklı ölçümler için kilitleme vidası 4 yerden sıkılır
ölçüm aralıkları: $0^{\circ}\sim 225^{\circ}$, $-225^{\circ}\sim 0^{\circ}$, $-45^{\circ}\sim 180^{\circ}$, $-180^{\circ}\sim 45^{\circ}$
- 360° ölçüm aralığı için kilitleme vidası çıkarılır
- Terazi kapsülü ile
- Pil CR2032
- Otomatik kapanma

Kod	Boyut (L)	Ölçüm aralığı	Çözünürlük	Doğruluk
2171-250	250mm	$0-360^{\circ}$	$0,05^{\circ}$	$\pm 0,15^{\circ}$

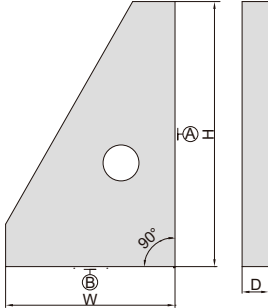


2171-250



GRANİT GÖNYE

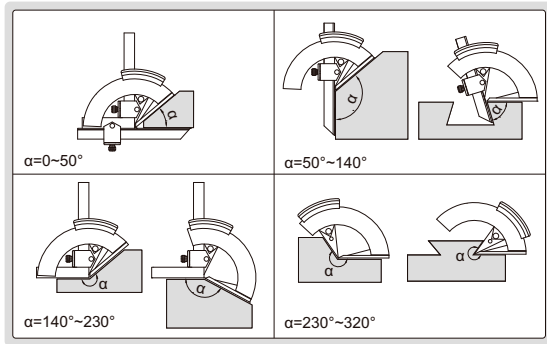
ÖZEL YAPIM
MÜŞTERİNİN İSTEĞİNE GÖRE ÖZEL
BOYUTLARDA TEDARİK EDİLİR



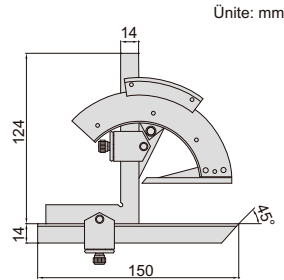
4141-250

Kod	Boyut (HxW)	A Düzlüğü	B Düzlüğü	A-B arasındaki karesellik	D
4141-250	250x160mm	1µm	1µm	2µm	25mm
4141-400	400x250mm	1,5µm	1µm	3µm	40mm
4141-630	630x400mm	2µm	1,5µm	4µm	63mm

AÇI ÖLÇER



Kod	Ölçüm aralığı	Hassasiyet	Doğruluk
2374-320	0 - 320°	2'	±2'

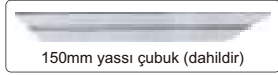


- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplama skala



2374-320

AÇI ÖLÇER SAATİ

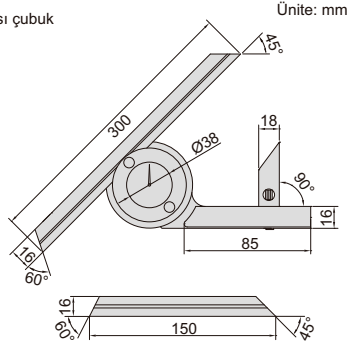


150mm yassı çubuk (dahildir)



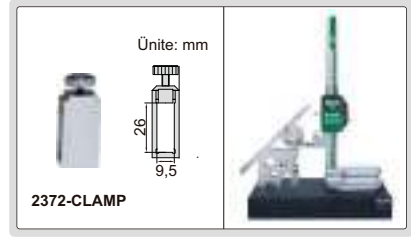
300mm yassı çubuk (dahildir)

2373-360



Ünite: mm

mihengirler için kelepçe (opsiyonel)



2372-CLAMP

- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: kelepçe (kod **2372-CLAMP**), **1156**, **1351** ve **1250** mihengirlere uygundur

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk
2373-360	0 - 360°	5'	±5'

150mm yassı çubuk (dahildir)

yassı çubuk (dahildir)

300mm ya (dahildir)

2372-360

300mm yassı çubuk
(dahildir)

Technical drawing of a mechanical part, likely a bracket or support. The drawing includes the following dimensions and features:

- Top View:**
 - Overall length: 150
 - Overall width: 16
 - Left side angle: 60°
 - Right side angle: 45°
- Front View:**
 - Overall height: 18
 - Base width: 85
 - Top edge angle: 5°
 - Bottom edge angle: 90°
 - Central circular feature with diameter $\varnothing 70$
 - Small circular feature labeled "hassas ayar" (fine adjustment) with a red dot indicating its location.
- Side View:**
 - Length: 300
 - Top edge angle: 5°
 - Bottom edge angle: 60°

Ünite: mm

26

9,5

2372-CLAMP

- | Kod | Ölçüm aralığı | Hassasiyet | Doğruluk |
|----------|---------------|------------|----------|
| 2372-360 | 0 - 360° | 5' | ±5' |

DİJİTAL AÇI ÖLÇER

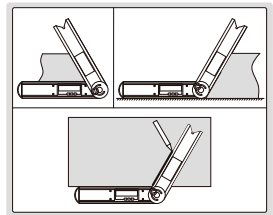
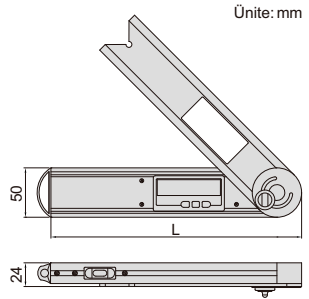


- Tuşlar: aç/kapa, sabitle (değer sabitleme), sıfırla, ABS (mutlak ve sayarak artarak ölçüm)
- Farklı ölçümler için kilitleme vidası 4 yerden sıkılır
ölçüm aralıkları: 0°~225°, -225°~0°, -45°~180°, -180°~45°
- 360° ölçüm aralığı için kilitleme vidası çıkarılır
- Terazi kapsülü ile
- Pil CR2032
- Otomatik kapanma

Kod	Boyut (L)	Ölçüm aralığı	Çözünürlük	Doğruluk
2171-250	250mm	0-360°	0,05°	±0,15°



2171-250



KOMBİNASYONLU AÇI ÖLÇER



2278-2

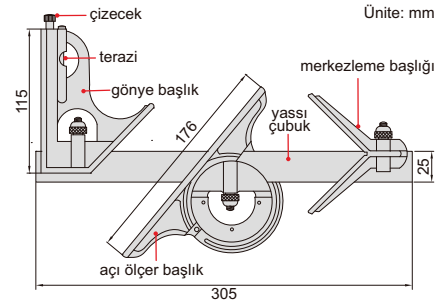


2278-3

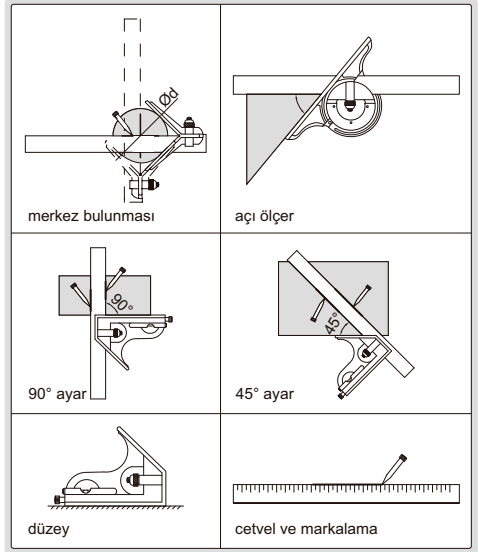


2278-180

- Merkezleme başlığı (dökme demirden yapılmıştır):
Çap (Ød) 30-100mm olan silindirlerin merkezinin belirlenmesi için
Doğruluk: $\pm 0,15\text{mm}$
- Açı ölçer başlık (dökme demirden yapılmıştır):
İş parçasının kenarına, yassı çubğun istenilen açı ile oturtulması içindir ve açı ölçmek için kullanılır
Ölçüm aralığı: 0-180°
Doğruluk: $\pm 7\text{min}$,
- Gönye başlık (dökme demirden yapılmıştır):
Yassı çubuğun 90° veya 45° ile iş parçasına oturtulması için
Doğruluk: 90° gönye için $\pm 8\text{dk}$,
45° gönye için $\pm 10\text{dk}$
- Yassı çubuk (paslanmaz çelikten yapılmıştır):
Ölçüm aralığı: 300mm/12",
Hassasiyet: 0,5mm ve 1/32" ön yüzde,
1mm ve 1/64" arka yüzde
- Opsiyonel aksesuar: bükülmez cetvel (kod 7113)

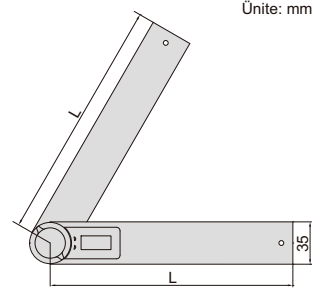


Kod	Açıklama
2278-2	2-parçalı set
2278-3	3-parçalı set
2278-180	4-parçalı set



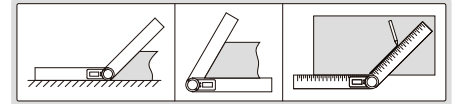
DİJİTAL AÇI ÖLÇER

- Tuşlar: aç/kapa, sabitle, sıfırla
- Yassı çubuk sıkma vidası ile kilitlenir
- Yassı çubuk hassasiyeti: 1mm ve 1/32"
- Paslanmaz çelikten yapılmıştır
- Pili CR2032
- Otomatik kapanma

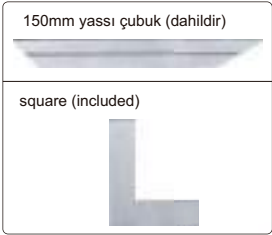


2176-300

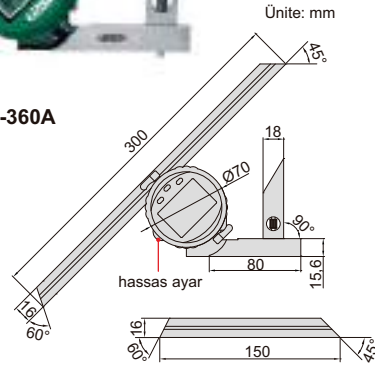
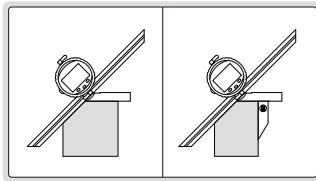
Kod	Boyut (L)	Ölçüm aralığı	Çözünürlük	Doğruluk
2176-200	200mm	0 - 360°	0,1°	±0,3°
2176-300	300mm	0 - 360°	0,1°	±0,3°



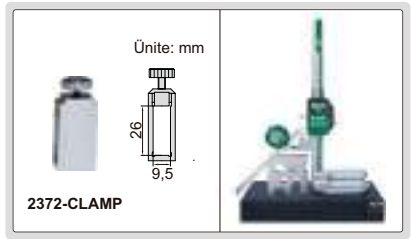
DİJİTAL AÇI ÖLÇER



2172-360A



mihengirler için kelepçe (opsiyonel)



- Dereceli (örnek olarak 32,655°) ve derece/dakika/saniye (örnek olarak 32°39'30") gösterge
- SET tuşu: değer önden ayarlama, ölçüm yönü değiştirme
- MODE tuşu: 0~90°, 0~180° veya 0~360° ekran seçilir
- ZERO/ON/OFF tuşu: sıfırlama ve aç/kapa
- Pil CR2032, otomatik kapanma
- Bilgi çıkış
- 90° ayarlaması için gönye
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkışı kablosu (kod 7306-40, 7302-SPC3A, 7305-SPC1A, 7305-C01), kelepçe (kod 2372-CLAMP), 1156, 1351 ve 1250 mihengirlere uygundur



Kod	Ölçüm aralığı	Çözünürlük	Doğruluk
2172-360A	0 - 360°	10"/0,005°	±5'

7-PIECE WELDING GAGE SET

- Includes:
 - 1) Welding gage (code **4834-1**)
 - 2) Welding gage (code **4851-1**)
 - 3) Fillet welding gage, size 3~25mm, 7 blades (code **4836-1**)
 - 4) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3203-25A**)
 - 5) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.005" (code **1108-150**)
 - 6) Pocket rule with sliding clip, range 150mm/6", graduation 1mm, 1/64" (code **7119-150**)
 - 7) Magnifier with illumination, magnification 4X (code **7513-4**)

Code

5072



5072

7-PIECE WELDING GAGE SET

- Includes:
 - 1) Welding gage (code **4834-1**)
 - 2) Welding gage (code **4851-1**)
 - 3) Pipe welding gage (code **4839-1**)
 - 4) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3203-25A**)
 - 5) Telescoping inspection mirror, size of mirror Ø32mm, length 178~505mm (code **7160-1**)
 - 6) Magnifier with illumination, magnification 4X (code **7513-4**)
 - 7) Steel rule, range 150mm/6", graduation 0.5mm, 1mm, 1/64", 1/32", 1/16" (code **7110-150**)



5071

Code

5071

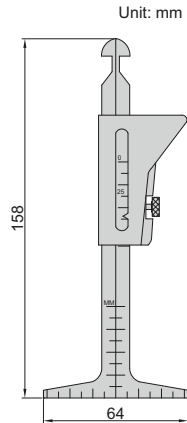
PIPE WELDING GAGE



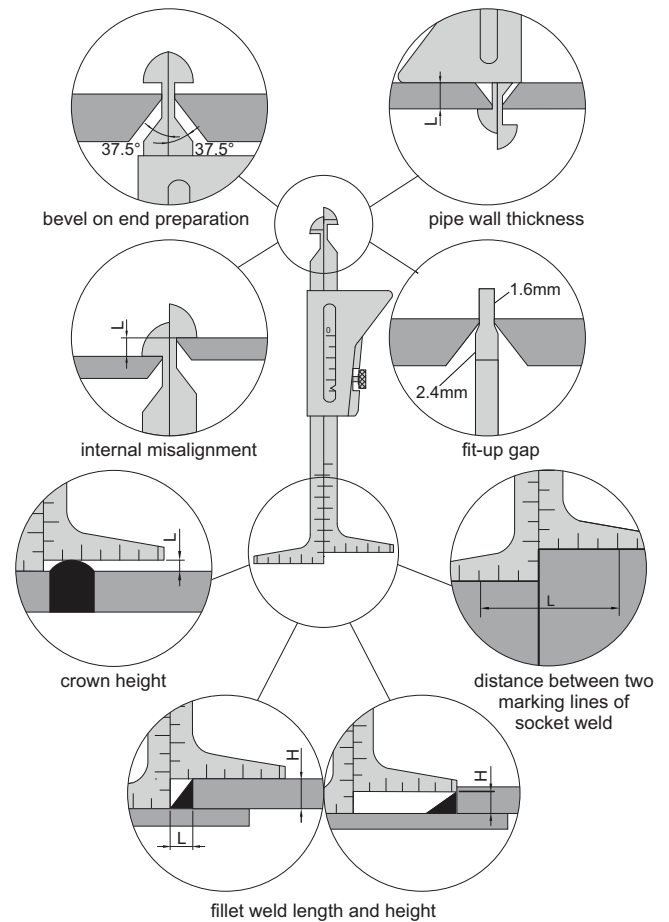
front

4839-1

back



Unit: mm

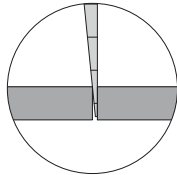


- Made of stainless steel

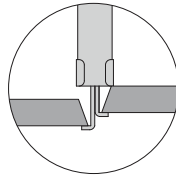
Code	Measurement	Range	Graduation	Accuracy
4839-1	bevel on end preparation	37.5°	—	±1°
	pipe wall thickness	0-45mm (0~1-3/4")	1mm (1/16")	±0.5mm
	internal misalignment	0-35mm (0~1-3/8")	1mm (1/32")	±0.5mm
	fit-up gap	1.6mm, 2.4mm	—	±0.1mm
	crown height	0-35mm (0~1-3/8")	1mm (1/32")	±0.5mm
	distance between two marking lines of socket weld	0-60mm (0~2-3/8")	1mm (1/16")	±0.5mm
	fillet weld length	0-30mm (0~1-1/4")	1mm (1/16")	±0.5mm
	fillet weld height	0-35mm (0~1-3/8")	1mm (1/32")	±0.5mm

PIPE WELDING GAGE

- Made of stainless steel



fit-up gap

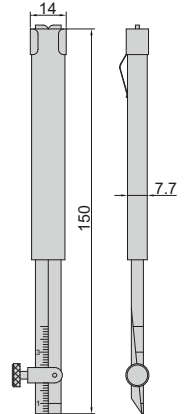


internal misalignment



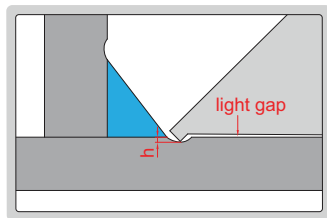
4841-1

Unit: mm



WELDING UNDERCUT GAGE

application



when there is a light gap, $h < 0.25\text{mm}$;
when there is no light gap, $h \geq 0.25\text{mm}$

- Measure undercut
- Calibration block is included
- Made of stainless steel



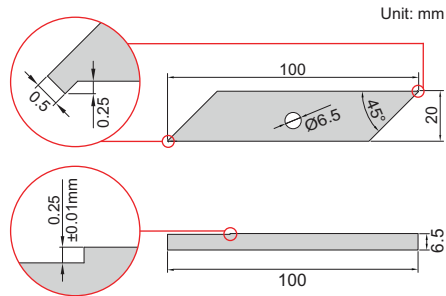
4849-1

calibration block (included)

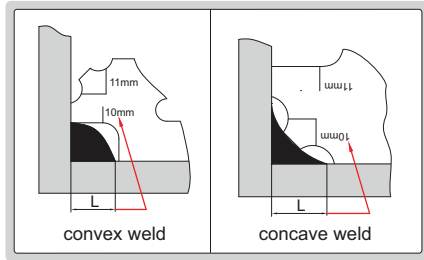


Code

4849-1



FILLET WELDING GAGES



- Measure concave and convex weld sizes
- 7 blades are included
- Made of stainless steel



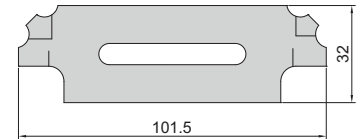
4836-1



4836-2

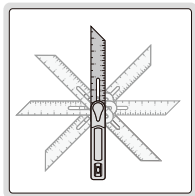
Code	Size	Accuracy
4836-1	3mm, 4mm, 5mm, 6mm, 8mm, 9mm, 10mm, 11mm, 12mm, 14mm, 16mm, 19mm, 22mm, 25mm	±0.5mm
4836-2	1/8" (3.2mm), 3/16" (4.8mm), 1/4" (6.4mm), 5/16" (7.9mm), 3/8" (9.5mm), 7/16" (11.1mm), 1/2" (12.7mm), 5/8" (15.9mm), 3/4" (19.1mm), 7/8" (22.2mm), 1" (25.4mm)	±0.02" (0.5mm)

Unit: mm



T-BEVEL

blade can rotate 360 °

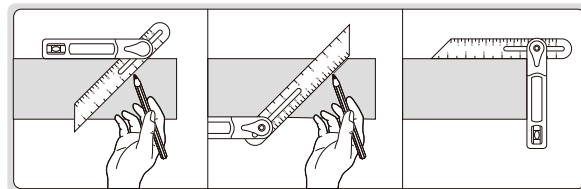
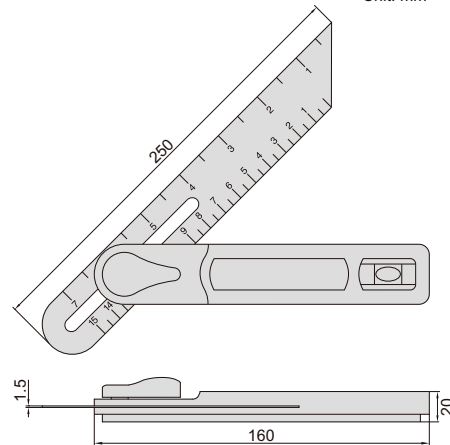


2281-360

- Easy-to-read vial
- The blade can move and can be locked by the clamping screw
- Stainless steel blade
- Tough rubber handle
- Centimeter/inch graduations

Code	Angle mark	Accuracy of angle
2281-360	15°, 30°, 45°, 60°, 90°	±1°

Unit: mm



13-PIECE MEASURING TOOL SET

■ Includes:

- 1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005", (code **1108-150**)
- 2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3202-25A**)
- 3) Dial indicator, range 10mm, graduation 0.01mm (code **2308-10A**)
- 4) Magnetic stand (code **6201-60**)
- 5) Protractor, range 0-180°, graduation 1° (code **4799-180**)
- 6) Pitch gauge, range 0.25-7mm, 24pcs, metric 60° thread (code **4820-124**)
- 7) Radius gauge, range 1-7mm (code **4801-17**)
- 8) Feeler gauge, range 0.05-1.00mm, 20pcs (code **4602-20**)
- 9) 90° beveled edge square, 100x70mm, grade 0 (code **4790-1000**)
- 10) Scriber (code **7230**)
- 11) Steel rule, 150mm/6" (code **7110-150**)
- 12) Depth base attachment (code **6140**)
- 13) Zero setting bar for depth base attachment



5013

Code

5013

9-PIECE MEASURING TOOL SET

■ Includes:

- 1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005" (code **1108-150**)
- 2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3202-25A**)
- 3) Protractor, range 0-180°, graduation 1° (code **4799-180**)
- 4) Pitch gauge, range 0.25-7mm, 24pcs, metric 60° thread (code **4820-124**)
- 5) Radius gauge, range 1-7mm (code **4801-17**)
- 6) Feeler gauge, range 0.05-1.00mm, 20pcs (code **4602-20**)
- 7) 90° beveled edge square, 100x70mm, grade 0 (code **4790-1000**)
- 8) Scriber (code **7230**)
- 9) Steel rule, 150mm/6" (code **7110-150**)

Code

5091



5091

6-PIECE MEASURING TOOL SETS

■ Includes:

- 1) Vernier caliper, range 0-150mm/0-6",
graduation 0.05mm/1/128" (code **1205-150S**) for **5063**,
graduation 0.02mm/0.001" (code **1205-1502S**) for **5063-2**
- 2) Outside micrometer, range 0-25mm
graduation 0.01mm (code **3202-25A**)
- 3) 90° beveled edge square, 100x70mm
grade 00 (code **4790-0100**)
- 4) Straight edge, 100mm (code **4700-100**)
- 5) Spring divider, 150mm (code **7260-150**)
- 6) Steel rule, 200mm/8" (code **7110-200**)

Code	Remark
5063	Vernier caliper, graduation 0.05mm/1/128" (code 1205-150S)
5063-2	Vernier caliper, graduation 0.02mm/0.001" (code 1205-1502S)



5063

5-PIECE MEASURING TOOL SET

■ Includes:

- 1) Digital caliper, range 0-150mm/0-6", resolution 0.01mm/0.0005", (code **1108-150**)
- 2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3203-25A**)
- 3) Dial indicator, range 10mm, graduation 0.01mm (code **2308-10A**)
- 4) Magnetic stand (code **6201-60**)
- 5) Micrometer stand (code **6300**)



Code

5051

5051

3-PIECE MEASURING TOOL SET

■ Includes:

- 1) Vernier caliper, range 0-150mm graduation 0.02mm (code **1205-1501S**)
- 2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3203-25A**)
- 3) Steel rule, range 150mm/6", graduation 0.5mm, 1mm, 1/64", 1/32", 1/16" (code **7110-150**)
- 4) Dust free gloves and dust free cloth

dust free gloves and dust free cloth



Code

5032

5032

2-PIECE MEASURING TOOL SETS

■ Includes:

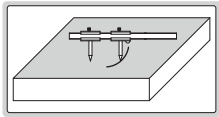
- 1) Vernier caliper, range 0-150mm/0-6",
graduation 0.05mm/1/128"
(code **1205-150S**) for **5021**,
graduation 0.02mm/0.001"
(code **1205-1502S**) for **5021-2**
- 2) Outside micrometer, range 0-25mm,
graduation 0.01mm (code **3202-25A**)



5021

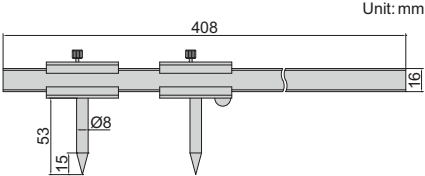
Code	Remark
5021	Vernier caliper, graduation 0.05mm/1/128" (code 1205-150S)
5021-2	Vernier caliper, graduation 0.02mm/0.001" (code 1205-1502S)

SCRIBING CALIPER



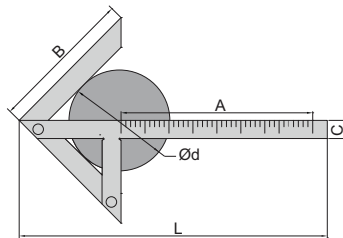
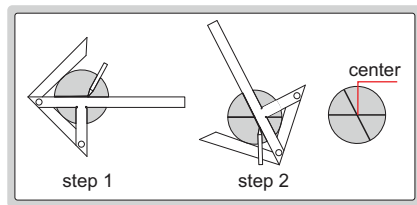
7203-300A

- Made of stainless steel
- Satin chrome plated reading surface
- Hardened scriber tips



Code	Range	Graduation	Accuracy
7203-300A	51-300mm	0.1mm	±0.1mm

CENTER MARKING GAGES



7205-100

Code	Size (AxB)	Diameter of shafts (Ød)	Accuracy	C	L
7205-100	100x70mm	4-90mm	±0.15mm	12mm	153mm
7205-150	150x130mm	4-190mm	±0.15mm	15mm	245mm
7205-200	200x150mm	6-220mm	±0.15mm	15mm	310mm
7205-300	300x180mm	6-270mm	±0.15mm	20mm	435mm

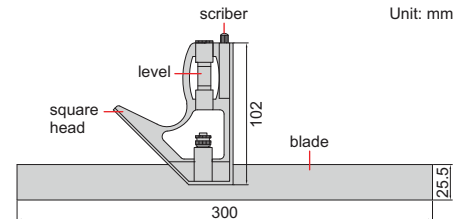
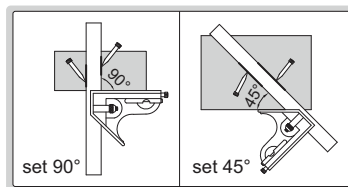
- Marking the center of round plates and shafts
- Made of stainless steel
- Satin chrome plated

COMBINATION SQUARE (ECONOMIC TYPE)



2276-300

- Square head (made of zinc):
set the blade at 90° or 45° to
an edge of a workpiece
accuracy: $\pm 0.5^\circ$
- Blade (made of stainless steel):
range: 300mm/12",
graduation: 1mm and 1/32" on front
face, 1mm and 1/16" on back face



Code

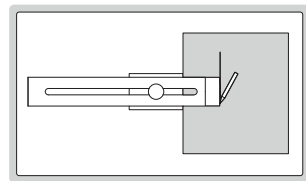
2276-300

MARKING GAGES

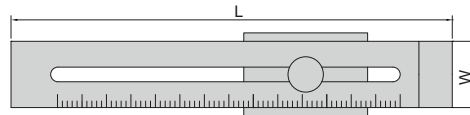


7120-200A

- Made of carbon steel
- Satin chrome plated



Code	Range	Graduation	Accuracy	L	W
7120-200A	0-200mm	0.1mm	$\pm 0.1\text{mm}$	250mm	40mm
7120-250A	0-250mm	0.1mm	$\pm 0.1\text{mm}$	300mm	40mm
7120-300A	0-300mm	0.1mm	$\pm 0.1\text{mm}$	350mm	40mm



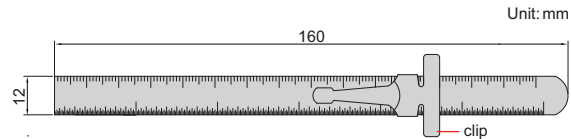
POCKET RULE WITH SLIDING CLIP



- With sliding clip, clip can be inserted in the pocket, also can be used as depth gage base
- Inch/metric conversion table on the back
- Made of stainless steel

7119-150

Code	Range	Graduation	Accuracy
7119-150	150mm/6"	1mm, 1/64"	±0.15mm



- ABS plastic frame, wear-resistant PU tire
- Two-section foldable handle



after folding



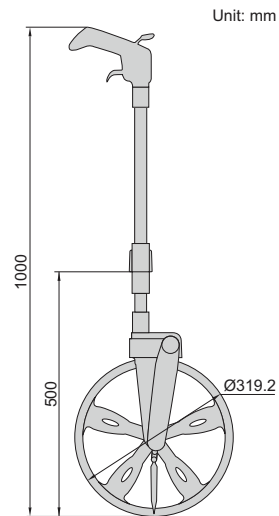
backpack (included)

Code	Range	Resolution
7145-1	0.1-9999.9m	0.1m



7145-1

MEASURING WHEEL

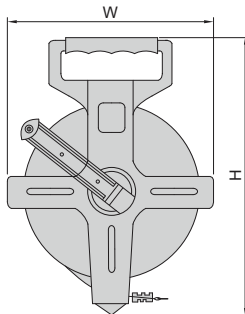


**EG
II**

graduation



- High tensile strength fibreglass tape
- Nylon coating tape, wear resistance



Code	Range	Graduation	Width of tape	W	H
7143-50	0-50m/0-165ft	1mm, 1/8"	13mm	220mm	320mm

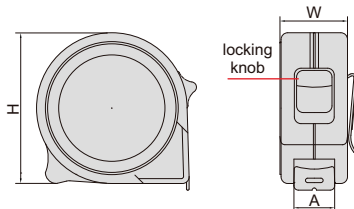
LONG MEASURING TAPE



7143-50

MEASURING TAPE (BASIC TYPE)

EG
II



7142-5

- Non-glare nylon coating tape, wear resistance

Individual (1 pc per package)

Code	Range	Graduation	Width of tape A	W	H
7142-5	0-5m/0-16ft	1mm, 1/16"	19mm	31mm	64mm

Set (12 pcs per package)

Code	Range	Graduation	Width of tape A	W	H
7142-5A	0-5m/0-16ft	1mm, 1/16"	19mm	31mm	64mm

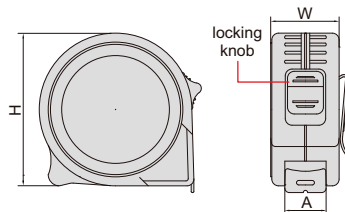
graduation



packaging



MEASURING TAPES



7140-5

- Non-glare nylon surface for wear resistance

Individual (1pc per package)

Code	Range	Graduation	Width of tape A	W	H
7140-3	0-3m	1mm	16mm	28mm	62mm
7140-5	0-5m	1mm	19mm	30mm	68mm
7140-8	0-8m	1mm	25mm	38mm	78mm

Set (12pcs per package)

Code	Range	Graduation	Width of tape A	W	H
7140-3A	0-3m	1mm	16mm	28mm	62mm
7140-5A	0-5m	1mm	19mm	30mm	68mm
7140-8A	0-8m	1mm	25mm	38mm	78mm

packaging



graduation



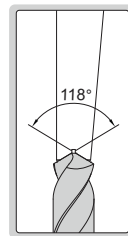
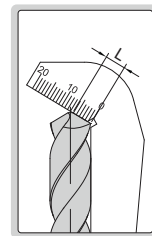
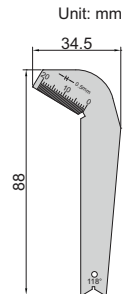
DRILL POINT GAGE

- For twist drills with 118° angle, to check if the center of tip is concentric with the drill body
- Made of stainless steel

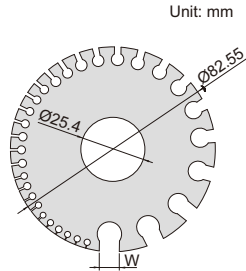
Code	Accuracy	
	Angle	Length
4843-1	$\pm 0.5^\circ$	$\pm 0.5\text{mm}$



4843-1



U.S. STANDARD SHEET METAL GAGE



- For gaging sheet metal, plate iron and steel
- Hardened to HRC50-57

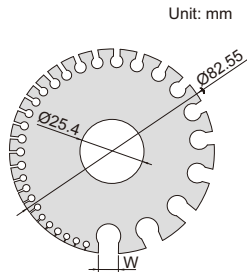


4809

Code	Range
4809	0-36 (7.938-0.179mm/0.3125-0.0070")

No.	W	No.	W
0	7.938mm/0.3125"	18	1.270mm/0.0500"
1	7.144mm/0.2813"	19	1.111mm/0.0438"
2	6.747mm/0.2656"	20	0.953mm/0.0375"
3	6.350mm/0.2500"	21	0.873mm/0.0344"
4	5.953mm/0.2344"	22	0.794mm/0.0313"
5	5.556mm/0.2188"	23	0.714mm/0.0281"
6	5.159mm/0.2031"	24	0.635mm/0.0250"
7	4.763mm/0.1875"	25	0.556mm/0.0219"
8	4.366mm/0.1719"	26	0.476mm/0.0188"
9	3.969mm/0.1563"	27	0.437mm/0.0172"
10	3.572mm/0.1406"	28	0.397mm/0.0156"
11	3.175mm/0.1250"	29	0.357mm/0.0141"
12	2.778mm/0.1094"	30	0.318mm/0.0125"
13	2.381mm/0.0938"	31	0.278mm/0.0109"
14	1.984mm/0.0781"	32	0.258mm/0.0102"
15	1.786mm/0.0703"	33	0.238mm/0.0094"
16	1.588mm/0.0625"	34	0.218mm/0.0086"
17	1.429mm/0.0563"	35	0.198mm/0.0078"
		36	0.179mm/0.0070"

AMERICAN STANDARD WIRE GAGE



- For gaging non-ferrous wire and metals such as copper, brass and aluminum
- Hardened to HRC50-57



4808

Code	Range
4808	0-36 (8.250-0.127mm/0.3249-0.0050")

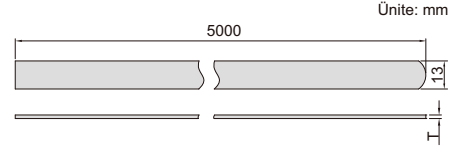
No.	W	No.	W
0	8.250mm/0.3249"	18	1.020mm/0.0403"
1	7.350mm/0.2893"	19	0.912mm/0.0359"
2	6.540mm/0.2576"	20	0.813mm/0.0320"
3	5.830mm/0.2294"	21	0.724mm/0.0285"
4	5.190mm/0.2043"	22	0.643mm/0.0253"
5	4.620mm/0.1819"	23	0.574mm/0.0226"
6	4.110mm/0.1620"	24	0.511mm/0.0201"
7	3.670mm/0.1443"	25	0.440mm/0.0179"
8	3.260mm/0.1285"	26	0.404mm/0.0159"
9	2.910mm/0.1144"	27	0.361mm/0.0142"
10	2.590mm/0.1019"	28	0.320mm/0.0126"
11	2.300mm/0.0907"	29	0.287mm/0.0113"
12	2.050mm/0.0808"	30	0.254mm/0.0100"
13	1.820mm/0.0720"	31	0.226mm/0.0089"
14	1.630mm/0.0641"	32	0.203mm/0.0080"
15	1.450mm/0.0571"	33	0.180mm/0.0071"
16	1.290mm/0.0508"	34	0.160mm/0.0063"
17	1.150mm/0.0453"	35	0.142mm/0.0056"
		36	0.127mm/0.0050"

FİLLER ÇAKISI YAPRAKLARI



4621-30

- Hassas boşluk ayarı için ara sacı olarak kullanılır
- Sertleştirilmiş alaşımlı çelikten yapılmıştır
- Uzunluk 5m
- Genişlik 13mm

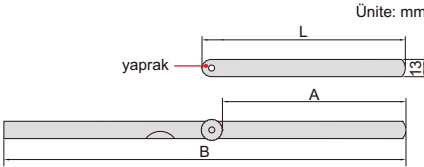


Kod	Kalınlık (T)	Doğruluk
4621-02	0,02mm	±4µm
4621-03	0,03mm	±4µm
4621-04	0,04mm	±4µm
4621-05	0,05mm	±4µm
4621-06	0,06mm	±4µm
4621-07	0,07mm	±5µm
4621-08	0,08mm	±5µm
4621-09	0,09mm	±5µm
4621-10	0,10mm	±5µm
4621-12	0,12mm	±5µm

Kod	Kalınlık (T)	Doğruluk
4621-15	0,15mm	±6µm
4621-18	0,18mm	±7µm
4621-20	0,20mm	±8µm
4621-25	0,25mm	±9µm
4621-30	0,30mm	±9µm
4621-35	0,35mm	±11µm
4621-40	0,40mm	±12µm
4621-45	0,45mm	±12µm
4621-50	0,50mm	±14µm
4621-55	0,55mm	±14µm

Kod	Kalınlık (T)	Doğruluk
4621-60	0,60mm	±14µm
4621-65	0,65mm	±14µm
4621-70	0,70mm	±17µm
4621-75	0,75mm	±17µm
4621-80	0,80mm	±19µm
4621-85	0,85mm	±19µm
4621-90	0,90mm	±22µm
4621-95	0,95mm	±22µm
4621-100	1,00mm	±24µm

UZUN FİLLER ÇAKISI



- Sertleştirilmiş alaşımlı çelikten yapılmıştır
- DIN2275 standardına uygundur
- Doğruluk: $\pm(3+T/80)$ μm ;
'T' μm cinsinden yaprak kalınlığıdır



4605-20

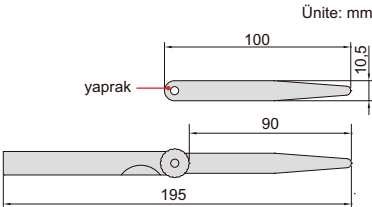
Kod	Ölçüm aralığı	Yaprak kalınlığı dahildir (mm)	Yaprak adedi	L	A	B
4605-13	0,05-1,00mm	0,05; 0,10; 0,15; 0,20; 0,25; 0,30; 0,40; 0,50; 0,60; 0,70; 0,80; 0,90; 1,00	13	150mm	135mm	295mm
4605-131	0,05-1,00mm		13	200mm	185mm	395mm
4605-132	0,05-1,00mm		13	300mm	285mm	590mm
4605-20	0,05-1,00mm	0,05; 0,10; 0,15; 0,20; 0,25; 0,30; 0,35; 0,40; 0,45; 0,50; 0,55; 0,60; 0,65; 0,70; 0,75; 0,80; 0,85; 0,90; 0,95; 1,00	20	150mm	135mm	295mm
4605-201	0,05-1,00mm		20	200mm	185mm	395mm
4605-202	0,05-1,00mm		20	300mm	285mm	590mm

FİLLER ÇAKISI

- Sertleştirilmiş alaşımlı çelikten yapılmıştır
- DIN2275 standardına uygundur
- Doğruluk: $\pm(3+T/80)$ μm ;
'T' μm cinsinden yaprak kalınlığıdır



4602-20



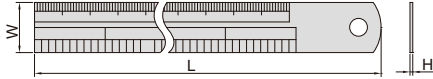
Kod	Ölçüm aralığı	Yaprak kalınlığı dahildir (mm)	Yaprak adedi
4602-13A	0,03-0,50mm	0,03; 0,04; 0,05; 0,06; 0,07; 0,08; 0,09; 0,10; 0,15; 0,20; 0,30; 0,40; 0,50	13
4602-13	0,05-1,00mm	0,05; 0,10; 0,15; 0,20; 0,25; 0,30; 0,40; 0,50; 0,60; 0,70; 0,80; 0,90; 1,00	13
4602-17	0,02-1,00mm	0,02; 0,03; 0,04; 0,05; 0,06; 0,07; 0,08; 0,09; 0,10; 0,15; 0,20; 0,25; 0,30; 0,40; 0,50; 0,75; 1,00	17
4602-20	0,05-1,00mm	0,05; 0,10; 0,15; 0,20; 0,25; 0,30; 0,35; 0,40; 0,45; 0,50; 0,55; 0,60; 0,65; 0,70; 0,75; 0,80; 0,85; 0,90; 0,95; 1,00	20
4602-28	0,05-1,00mm	0,05; 0,06; 0,07; 0,08; 0,09; 0,10; 0,11; 0,12; 0,13; 0,14; 0,15; 0,20; 0,25; 0,30; 0,35; 0,40; 0,45; 0,50; 0,55; 0,60; 0,65; 0,70; 0,75; 0,80; 0,85; 0,90; 0,95; 1,00	28
4602-32	0,03-1,00mm	0,03; 0,04; 0,05; 0,06; 0,07; 0,08; 0,09; 0,10; 0,13; 0,15; 0,18; 0,20; 0,23; 0,25; 0,28; 0,30; 0,33; 0,35; 0,38; 0,40; 0,45; 0,50; 0,55; 0,60; 0,63; 0,65; 0,70; 0,75; 0,80; 0,85; 0,90; 1,00	32

DİKKAT:
EKONOMİK MODEL

ÇELİK CETVEL



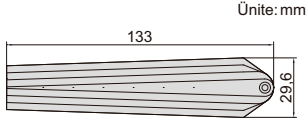
7110-300



- Hassasiyet: 0,5mm; 1mm; 1/64"; 1/32"; 1/16"
- Bükülmez cetvel
- Paslanmaz çelikten yapılmıştır
- Parlamayan yüzey

(mm)

Kod	Ölçüm aralığı	Doğruluk	L	W	H	Açıklama
7110-150	150mm/6"	±0,15mm	170	18	1,0	ön ve arka hassasiyeti
7110-200	200mm/8"	±0,15mm	220	18	1,0	ön ve arka hassasiyeti
7110-300	300mm/12"	±0,15mm	330	25	1,0	ön ve arka hassasiyeti
7110-3001	300mm/12"	±0,15mm	325	30	1,0	ön ve arka hassasiyeti
7110-500	500mm/20"	±0,15mm	530	30	1,2	ön ve arka hassasiyeti
7110-600	600mm/24"	±0,20mm	630	30	1,2	ön ve arka hassasiyeti
7110-1000	1000mm/40"	±0,20mm	1040	32	1,5	ön ve arka hassasiyeti
7110-1200	1200mm/48"	±0,22mm	1240	35	1,8	ön hassasiyet
7110-1500	1500mm/60"	±0,25mm	1550	38	1,8	ön hassasiyet
7110-2000	2000mm/80"	±0,30mm	2065	40	2,0	ön hassasiyet



- Sette 4 adet vardır (1-8mm, 8-15mm, 15-22mm, 22-29mm)
- Açıklık, aralık genişliği, delik boyu gibi ölçümler için
- Çap düzeltme tablosu arkadadır
- Paslanmaz çelikten yapılmıştır

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk
4837-1	1-29mm	0,05mm	±0,05mm



ön

4837-1

arka

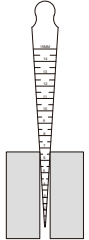
KONİK CETVEL SETİ

delik açısı ölçümü



Delik açıları ölçülürken konik cetvel kalınlığından dolayı okumada düzeltme yapmak gereklidir; örneğin; A'nın 14,96mm olduğu okunuyorsa çap ØD 15mm'dir.

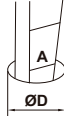
aralık genişliği ölçümü



KONİK CETVEL

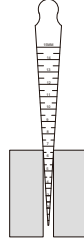
- Açıklık, aralık genişliği, delik boyu gibi ölçümler için
- Çap düzeltme tablosu arkadadır (sadece **4833-1, 4833-2** için)
- Paslanmaz çelikten yapılmıştır

delik aç ölçümü



Delik açıları ölçülürken konik cetvel kalınlığından dolayı okumada düzeltme yapmak gereklidir; örneğin; A'nın 14,96mm olduğu okunuyorsa çap ØD 15mm'dir.

aralık genişliği ölçümü



ön



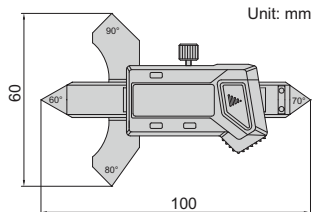
arka

4833-2



DIGITAL WELDING GAGE

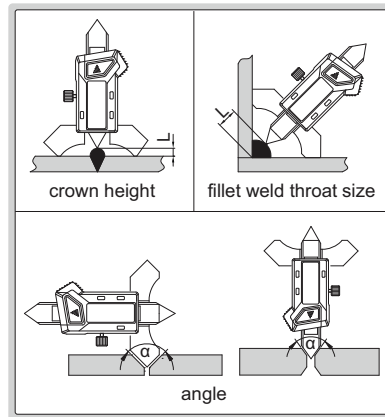
ATTENTION:
NO DATA OUTPUT



4831-20A

- Buttons: zero, mm/inch, on/off
- Battery LR44
- Made of stainless steel

Code	Measurement	Range	Resolution	Accuracy
4831-20A	crown height	0-7mm	0.01mm/0.0005"	±0.03mm
	fillet weld throat size	0-20mm	0.01mm/0.0005"	±0.1mm
	angle	60°, 70°, 80°, 90°	—	±1°



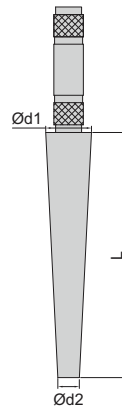
TAPER BORE GAGES

- Quick measurement of bore diameter
- Hardened steel, HRC50-58
- Satin chrome plated surface
- Aluminium oxidized handle

(mm)						
Code	Range	Graduation	Accuracy	L	Ød1	Ød2
4852-1	1-6.5mm	0.1mm	±0.05mm	62.5	7	0.8
4852-3	3-16mm	0.1mm	±0.05mm	143	17	2.8
4852-15	15-30mm	0.1mm	±0.05mm	165	31	14.7
4852-30	30-45mm	0.1mm	±0.05mm	165	46	29.6
4852-45	45-60mm	0.1mm	±0.05mm	167	61	44.3



4852-15



CHAMFER HEIGHT GAGE

INSIZE PLUS
MADE IN EUROPE

setting gage (included)

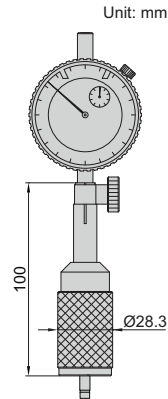


- Measure outside or inside chamfer height
- Suitable for diameter of bores $\geq 6\text{mm}$, chamfer angle $\alpha \geq 30^\circ$
- Setting gage is included

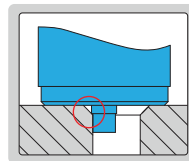
Code	Range (L)	Graduation	Accuracy
2943-1	0.2-5mm	0.01mm	$\pm 0.02\text{mm}$



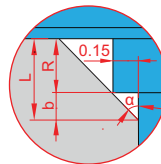
2943-1



principle of measurement



Unit: mm



$$L=R+b$$

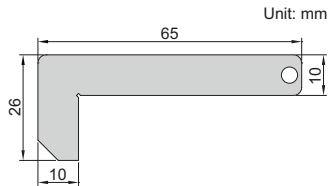
L: chamfer height

α : chamfer angle

R: reading of dial indicator

$$b= \frac{0.15}{\tan \alpha}$$

CHAMFER GAGE

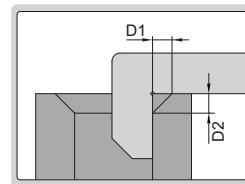
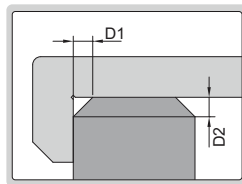


- To measure internal and external chamfers
- Made of stainless steel

Code	Graduation	Accuracy
4844-1	0.5mm	$\pm 0.25\text{mm}$

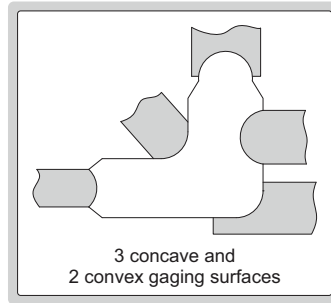


4844-1



RADIUS GAGE SET

- Each piece has 3 concave and 2 convex gauging surfaces
- Supplied with handle
- Made of medium carbon steel



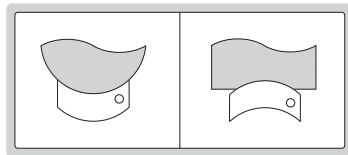
Code	Range	Radius of leaves included (mm)	Quantity of leaves
4804-26	0.5-13mm	0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13	26



4804-26

RADIUS GAGE

- Made of stainless steel



Code	Range	Radius of leaves included (mm)	Quantity of leaves
4802-31	25 -40mm	25, 25.5, 26, 26.5, 27, 27.5, 28, 28.5, 29, 29.5, 30, 30.5, 31, 31.5, 32, 32.5, 33, 33.5, 34, 34.5, 35, 35.5, 36, 36.5, 37, 37.5, 38, 38.5, 39, 39.5, 40	31 pcs



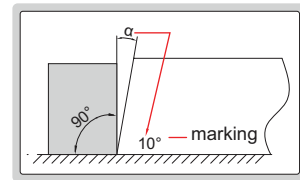
4802-31

ANGLE GAGE

- To check complementary angles
- Made of stainless steel



4806-20



Code	Range (α)	Angle of leaves included	Quantity of leaves	Accuracy
4806-20	1°-45°	1°, 2°, 3°, 4°, 5°, 6°, 7°, 8°, 9°, 10°, 12°, 14°, 16°, 18°, 20°, 25°, 30°, 35°, 40°, 45°	20	$\pm 30'$

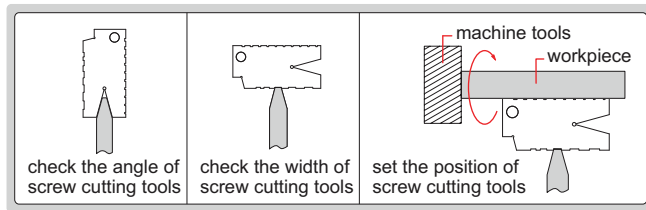
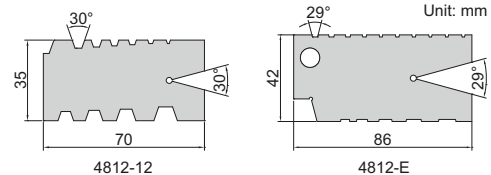
THREAD GAGES



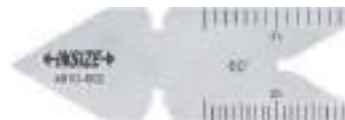
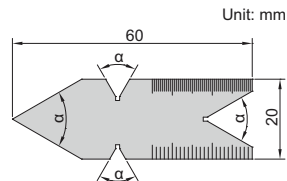
4812-E

- To check and set screw cutting tools
- Made of medium carbon steel

Code	Range	Thread type	Pitch
4812-12	2-12mm	Tr 30°	2, 3, 4, 5, 6, 7, 8, 9, 10, 12mm
4812-E	1-10TPI	ACME 29°	1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3, 4, 5, 6, 7, 8, 9, 10TPI

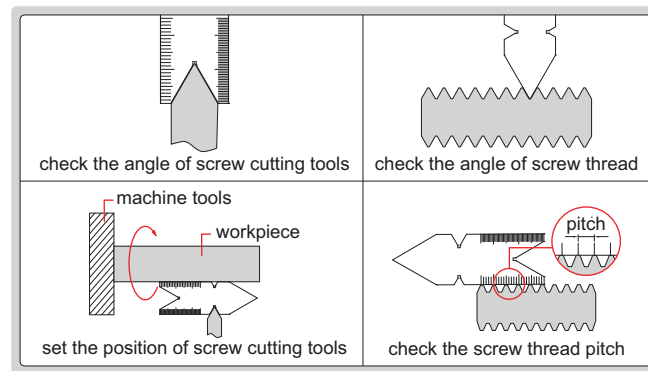


CENTER GAGES



4810-602

- To check and set screw cutting tools, and check the angle and pitch of screw thread
- Angle accuracy: $\pm 30\text{min}$.
- Made of stainless steel



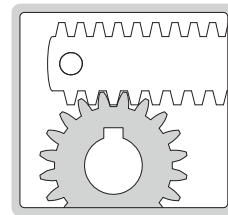
Code	Thread type	Angle (α)	Graduation
4810-601	METRIC 60°	60°	0.5mm and 1mm
4810-602	UNIFIED 60°	60°	14ths and 20ths on front side, 24ths and 32ths on back side
4810-55	WHITWORTH 55°	55°	14ths and 20ths on front side, 24ths and 32ths on back side

GEAR TOOTH PITCH GAGES

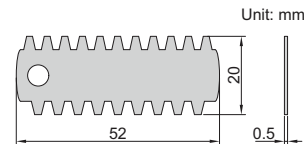
- Check the module pitch of gear tooth
- Accuracy: $\pm 0.05\text{mm}$
- Made of hardened stainless steel



4860-245



Code	Range	Pressure angle	Quantity of leaves
4860-145	0.35-4.5mm	14.5°	15
4860-245	0.35-4.5mm	20°	15
4860-112	5-12mm	14.5°	8
4860-212	5-12mm	20°	8

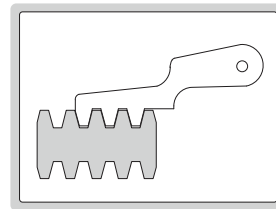


PITCH GAGES

- Check the pitch of screw thread
- Accuracy: $\pm 0.07\text{mm}$
- Made of medium carbon steel



4824-12



Code	Range	Thread type	Pitch of leaves included	Quantity of leaves
4824-12	2-20mm	Tr30°	2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 16, 20mm	12
4824-16	1-12TPI	ACME 29°	1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 7, 8, 9, 10, 12TPI	16

INCH FEELER GAGE

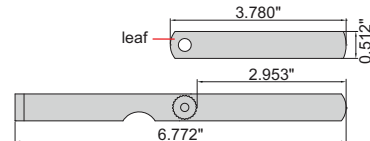


4608-31

- 0.010" is made of brass, others are made of hardened alloy steel
- Each blade is marked with inch/metric size

Code	Range	Quantity of Leaves
4608-31	0.0015"~0.035"	32

Thickness of leaves included	Accuracy
0.010" (brass)	$\pm 0.00039"$
0.0015", 0.002"	$\pm 0.0002"$
0.0025", 0.003", 0.004", 0.005", 0.006", 0.007"	$\pm 0.00028"$
0.008", 0.009"	$\pm 0.00035"$
0.010", 0.011"	$\pm 0.00039"$
0.012", 0.013"	$\pm 0.00047"$
0.014", 0.015"	$\pm 0.00051"$



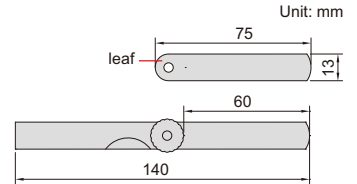
Thickness of leaves included	Accuracy
0.016", 0.017"	$\pm 0.00055"$
0.018", 0.019"	$\pm 0.00059"$
0.020", 0.021"	$\pm 0.00067"$
0.022", 0.023"	$\pm 0.00071"$
0.024", 0.025", 0.026"	$\pm 0.00075"$
0.028"	$\pm 0.00091"$
0.030"	$\pm 0.00094"$
0.032", 0.035"	$\pm 0.00102"$

FEELER GAGE

- Made of hardened alloy steel
- Meet DIN2275/grade TC1
- Accuracy: $\pm(3+T/80) \mu\text{m}$,
'T' is the thickness of leaves in μm



4601-25



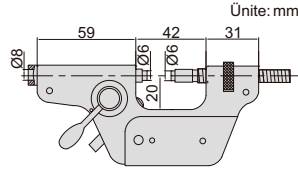
Code	Range	Thickness of leaves included (mm)	Quantity of leaves
4601-25	0.04-1.00mm	0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	25

SAATLİ PASOMETRE

←INSIZE→PLUS
FRANSIZ MALI



3337-40



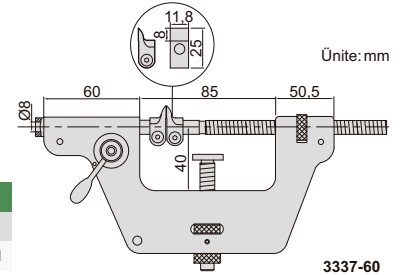
3337-40



3337-60

- Geçer ve geçmez masterlar için
- Karbir ölçüm ağızlı
- Yükseklik ayarlanabilir
- Opsiyonel aksesuar: komparatör saati (hassasiyet 0,001 mm); ve dijital komparatör (hassasiyet 0,001 mm)

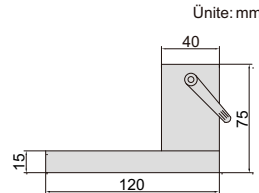
Kod	Ölçüm aralığı	Ölçme yüzey paralelliği	Geri çekme hareketi	Açıklama
3337-40	0-40mm	1µm	6mm	
3337-60	0-60mm	3µm	6mm	çeneli ölçme uçları



3337-60

Ayak (opsiyonel)

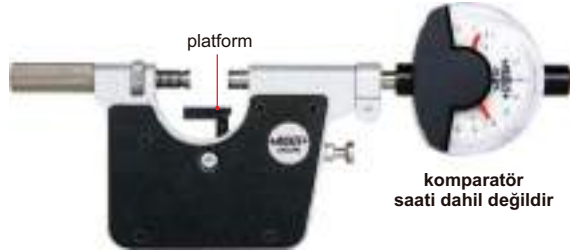
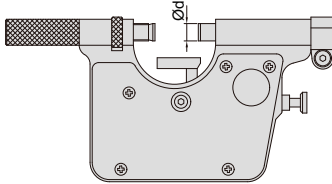
Kod
3337-STAND



3337-STAND

SAATLİ PASOMETRE

INSIZE PLUS
ALMAN MALI



3336-25

- Toplu üretim için Geçer ve geçmez masterları
- Karbir ölçüm ağızlı
- Ayarlanabilir yükseklik platformu
- Opsiyonel aksesuar: komparatör saati (kod **2881-01**)

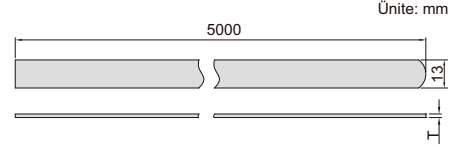
Kod	Ölçüm aralığı	Ölçme yüzeylerinin çapı (Ød)
3336-25	0-25mm	8mm
3336-50	25-50mm	8mm
3336-100	50-100mm	15mm

FİLLER ÇAKISI YAPRAKLARI



4621-30

- Hassas boşluk ayarı için ara sacı olarak kullanılır
- Sertleştirilmiş alaşımlı çelikten yapılmıştır
- Uzunluk 5m
- Genişlik 13mm



Kod	Kalınlık (T)	Doğruluk
4621-02	0,02mm	±4µm
4621-03	0,03mm	±4µm
4621-04	0,04mm	±4µm
4621-05	0,05mm	±4µm
4621-06	0,06mm	±4µm
4621-07	0,07mm	±5µm
4621-08	0,08mm	±5µm
4621-09	0,09mm	±5µm
4621-10	0,10mm	±5µm
4621-12	0,12mm	±5µm

Kod	Kalınlık (T)	Doğruluk
4621-15	0,15mm	±6µm
4621-18	0,18mm	±7µm
4621-20	0,20mm	±8µm
4621-25	0,25mm	±9µm
4621-30	0,30mm	±9µm
4621-35	0,35mm	±11µm
4621-40	0,40mm	±12µm
4621-45	0,45mm	±12µm
4621-50	0,50mm	±14µm
4621-55	0,55mm	±14µm

Kod	Kalınlık (T)	Doğruluk
4621-60	0,60mm	±14µm
4621-65	0,65mm	±14µm
4621-70	0,70mm	±17µm
4621-75	0,75mm	±17µm
4621-80	0,80mm	±19µm
4621-85	0,85mm	±19µm
4621-90	0,90mm	±22µm
4621-95	0,95mm	±22µm
4621-100	1,00mm	±24µm

4 PARA LÜM SETİ

■ İindekiler:

- 1) Dijital kumpas; aralık 0-150mm/0-6",
özünürlük 0,01mm/0,0005" (kod **1108-150**)
- 2) Dış ap mikrometre; aralık 0-25mm;
hassasiyet 0,01mm; (kod **3202-25A**)
- 3) 90° kıl gönye; 100x70mm; 1 kalite
(kod **4790-1000**)
- 4) elik cetvel; 150mm/6" (kod **7110-150**)



5042

Kod

5042

- İçindekiler:
 - 1) Mekanik kumpas; aralık 0-150mm/0-6"
 - 2) Dış çap mikrometre; aralık 0-25mm, hassasiyet 0,01mm; (kod **3202-25A**)
 - 3) 90° kıl gönye; 100x70mm 0 kalite (kod **4790-1000**)
 - 4) Kıl master; 150mm/6" (kod **7110-150**)

Kod	Açıklama
5041	Mekanik Kumpas; hassasiyet 0,05mm/1/128" (kod 1205-150S)
5041-2	Mekanik Kumpas; hassasiyet 0,02mm/0,001" (kod 1205-1502S)

4 PARÇA ÖLÇÜM SETİ



5041

2 PARA LM SETİ

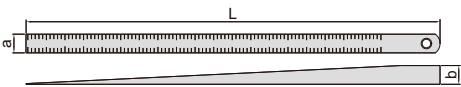
- İindekiler:
 - 1) Komparatr saati; aralık 10mm, hassasiyet 0,01mm (kod **2308-10A**)
 - 2) Manyetik ayak (kod **6201-60**)

Kod
5024



5024

KONİK CETVEL

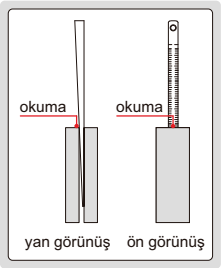


- Boşluk genişliğinin hızlı ölçümü içindir
- Parlak krom kaplama okuma yüzeyi
- Paslanmaz çelikten yapılmıştır



4630-1

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	L	a	b
4630-3	0,4-6mm	0,05mm	$\pm 0,04$ mm	164mm	12,5mm	6,5mm
4630-1	0,5-10mm	0,05mm	$\pm 0,07$ mm	220mm	10mm	10,5mm
4630-2	0,5-15mm	0,1mm	$\pm 0,08$ mm	184mm	12,5mm	16,5mm



KOMBİNASYONLU AÇI ÖLÇER



2278-2

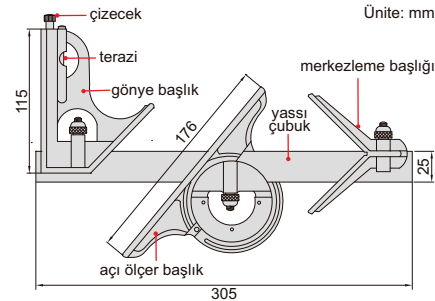


2278-3

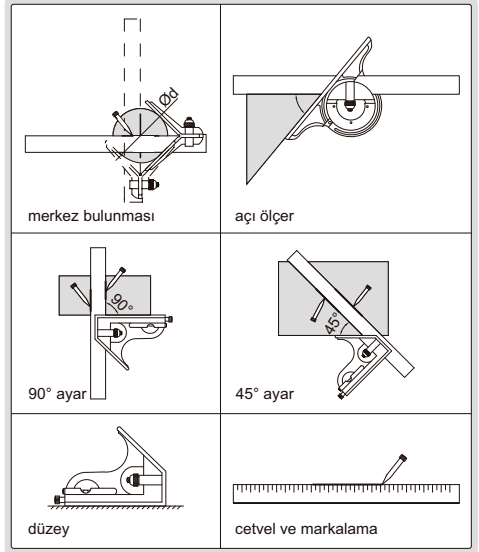


2278-180

- Merkezleme başlığı (dökme demirden yapılmıştır):
Çap (Ød) 30-100mm olan silindirlerin merkezinin belirlenmesi için
Doğruluk: $\pm 0,15\text{mm}$
- Açı ölçer başlık (dökme demirden yapılmıştır):
İş parçasının kenarına, yassı çubğun istenilen açı ile oturtulması içindir ve açı ölçmek için kullanılır
Ölçüm aralığı: 0-180°
Doğruluk: $\pm 7\text{min}$,
- Gönye başlık (dökme demirden yapılmıştır):
Yassı çubuğun 90° veya 45° ile iş parçasına oturtulması için
Doğruluk: 90° gönye için $\pm 8\text{dk}$,
45° gönye için $\pm 10\text{dk}$
- Yassı çubuk (paslanmaz çelikten yapılmıştır):
Ölçüm aralığı: 300mm/12",
Hassasiyet: 0,5mm ve 1/32" ön yüzde,
1mm ve 1/64" arka yüzde
- Opsiyonel aksesuar: bükülmez cetvel (kod 7113)



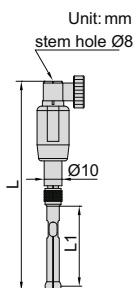
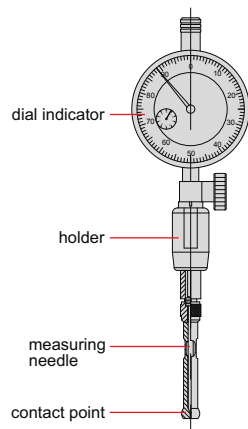
Kod	Açıklama
2278-2	2-parçalı set
2278-3	3-parçalı set
2278-180	4-parçalı set



SPLIT TYPE DIAL BORE GAGES

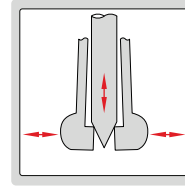
INSIZE PLUS
MADE IN EUROPE

dial indicator
is optional



- Split type contact points
- Accuracy (without indicator):
3µm (measuring range 0.95~10mm),
4µm (measuring range 10~20.6mm)
- Repeatability (without indicator): 1µm
- Optional accessory:
digital/dial indicators or dial comparator

principle of measurement

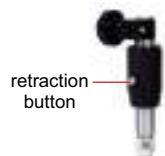


(mm)

Contact point					Measuring needle	Setting ring	
Code	Measuring range	Measuring depth (L1)	Total length (L)	Material of points	Code	Code	Diameter
2426-1	0.95-1.15	13	89	carbide	2426-N1D4	6312-1	1
2426-1D1	1.07-1.25	13	89	carbide		6312-1D1	1.1
2426-1D2	1.17-1.35	13	89	carbide		6312-1D2	1.2
2426-1D3	1.27-1.45	13	89	carbide		6312-1D3	1.3
2426-1D4	1.37-1.55	13	89	carbide		6312-1D4	1.4
2426-1D75	1.5-1.9	17	93	carbide	2426-N2D25	6312-1D75	1.75
2426-2	1.8-2.2	17	93	carbide		6312-2	2
2426-2D25	2.05-2.45	17	93	carbide		6312-2D25	2.25
2426-2D5	2.3-2.7	25	101	carbide	2426-N4	6312-2D5	2.5
2426-2D75	2.55-2.95	25	101	carbide		6312-2D75	2.75
2426-3	2.8-3.2	25	101	carbide		6312-3	3
2426-3D25	3.05-3.45	25	101	carbide		6312-3D25	3.25
2426-3D5	3.3-3.7	25	101	carbide		6312-3D5	3.5
2426-3D75	3.55-3.95	25	101	carbide	2426-N9	6312-3D75	3.75
2426-4	3.8-4.2	25	101	carbide		6312-4	4
2426-4D5	4.15-4.8	41	118	hard chromed		6312-4D5	4.5
2426-5	4.7-5.3	41	118	hard chromed		6312-5	5
2426-5D5	5.2-5.8	41	118	hard chromed		6312-5D5	5.5
2426-6	5.7-6.3	41	118	hard chromed		6312-6	6
2426-6D5	6.2-6.8	41	118	hard chromed		6312-6D5	6.5
2426-7	6.7-7.3	41	118	hard chromed		6312-7	7
2426-7D5	7.2-7.8	45	118	hard chromed		6312-7D5	7.5
2426-8	7.7-8.3	45	118	hard chromed	2426-N20	6312-8	8
2426-8D5	8.2-8.8	45	118	hard chromed		6312-8D5	8.5
2426-9	8.7-9.3	45	118	hard chromed		6312-9	9
2426-10	9.2-10.5	45	118	hard chromed		6312-10	10
2426-11	10.2-11.5	45	118	hard chromed		6312-11	11
2426-12	11.2-12.5	45	118	hard chromed		6312-12	12
2426-13	12.2-13.5	45	118	hard chromed		6312-13	13
2426-14	13.4-14.6	45	118	hard chromed		6312-14	14
2426-15	14.4-15.6	45	118	hard chromed		6312-15	15
2426-16	15.4-16.6	45	118	hard chromed		6312-16	16
2426-17	16.4-17.6	45	118	hard chromed		6312-17	17
2426-18	17.4-18.6	45	118	hard chromed		6312-18	18
2426-19	18.4-19.6	45	118	hard chromed		6312-19	19
2426-20	19.4-20.6	45	118	hard chromed		6312-20	20



2426-HOLDER1

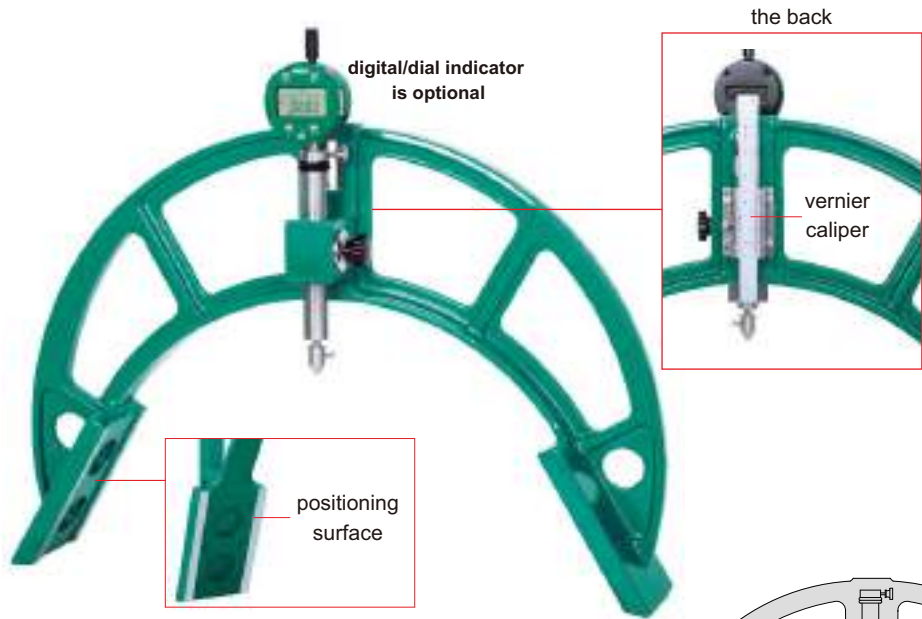


2426-HOLDER2

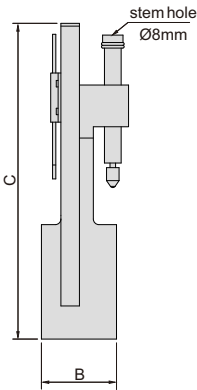
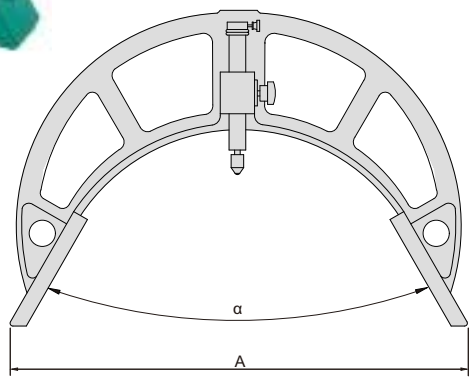
HOLDER

Code	Retraction	Applicable points
2426-HOLDER1	without	all
2426-HOLDER2	with	all

OUTSIDE DIAMETER MEASURING INSTRUMENTS



- Comparison measurement by digital/dial indicators. Need standard workpieces to set zero. Measure diameter/convex/concave/taper/roundness and other parameters, can also measure the wear and surface scratch of the workpieces
- Diameter measurement by vernier caliper, graduation: 0.02mm
- The frame is made of aluminum magnesium alloy with light weight and high strength
- Optional accessory: 0.01mm or 0.001mm digital/dial indicators



(mm)							
Code	Range	Repeatability (by digital/dial indicators)	Accuracy (by vernier caliper)	α	A	B	C
2716-60	18-60	0.01mm	0.04mm	60°	140	60	160
2716-120	60-120	0.01mm	0.04mm	60°	160	65	192
2716-200	120-200	0.01mm	0.04mm	60°	225	70	228
2716-300	200-300	0.01mm	0.04mm	60°	330	80	262
2716-400	300-400	0.01mm	0.04mm	60°	405	80	303
2716-500	400-500	0.01mm	0.04mm	60°	494	80	340
2716-600	500-600	0.01mm	0.04mm	60°	594	80	398
2716-700	600-700	0.01mm	0.04mm	60°	685	80	446
2716-800	700-800	0.01mm	0.04mm	60°	772	80	479
2716-900	800-900	0.01mm	0.04mm	60°	860	80	520
2716-1000	900-1000	0.01mm	0.04mm	60°	950	80	560
2716-1100	1000-1100	0.01mm	0.04mm	60°	1035	90	575
2716-1200	1000-1200	0.01mm	0.08mm	83.62°	960	100	460
2716-1300	1100-1300	0.01mm	0.08mm	83.62°	1000	100	485
2716-1400	1200-1400	0.01mm	0.08mm	83.62°	1100	100	512
2716-1600	1400-1600	0.01mm	0.08mm	83.62°	1260	100	540
2716-1800	1600-1800	0.01mm	0.08mm	83.62°	1460	100	570
2716-2000	1800-2000	0.01mm	0.08mm	83.62°	1645	100	605

application



- Measure internal diameter and circumference of soft materials like tubes, belts, etc.
- Laser engraved scale
- Made of stainless steel
- Optional accessory: holder (code **7125-HOLDER**)

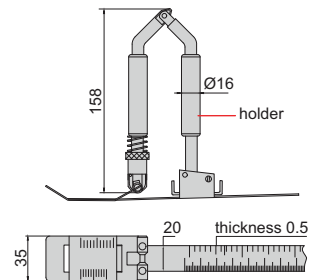


7125-1550

INTERNAL CIRCUMFERENCE TAPES

INSIZE⁺ PLUS
MADE IN EUROPE

Unit: mm



Code	Circumference range	Diameter range	Graduation	Accuracy	
				Circumference	Diameter
7125-1550	720-1550mm	Ø230-490mm	0.1mm	±0.35mm	±0.20mm
7125-2200	940-2200mm	Ø300-700mm	0.1mm	±0.35mm	±0.20mm
7125-3460	2190-3460mm	Ø700-1100mm	0.1mm	±0.45mm	±0.23mm
7125-4720	3450-4720mm	Ø1100-1500mm	0.1mm	±0.45mm	±0.23mm
7125-5980	4710-5980mm	Ø1500-1900mm	0.1mm	±0.50mm	±0.25mm
7125-7230	5970-7230mm	Ø1900-2300mm	0.1mm	±0.55mm	±0.27mm
7125-8500	7220-8500mm	Ø2300-2700mm	0.1mm	±0.55mm	±0.27mm

HOLDER (OPTIONAL)

Code

7125-HOLDER

TAPE BORE GAGES

INSIZE^{PLUS}
MADE IN EUROPE



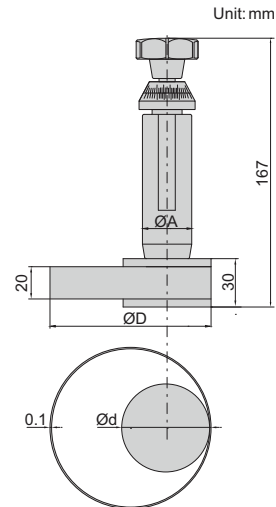
- Measure internal diameter and circumference of soft materials like tubes, belts, etc.
- Graduation: 0.1mm
- Accuracy: 0.2mm

(mm)

Code	Range ØD	Ød	ØA	Measuring depth
2430-24	14-24mm	13.5	13	15-60
2430-40	22-40mm	21.5	21	15-60
2430-60	35-60mm	34.5	30.5	15-96
2430-100	55-100mm	54.5	30.5	15-106
2430-180	95-180mm	94.5	30.5	15-106
2430-255	170-255mm	169.5	30.5	15-106
2430-330	245-330mm	244.5	30.5	15-106



2430-100

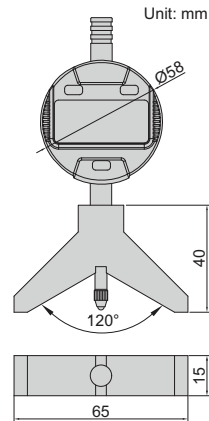


DIGITAL RADIUS GAGE

- Measure radius of external arc, arc angle of measured surface should be larger than 60°
- Display radius value, no need to calculate
- Button function: on/off, zero, data preset, inch/mm
- Keep preset data in memory after restart
- CR2032 battery, automatic power off
- Data output
- Stainless steel base
- Supplied with pin gage for zero setting
- Optional accessory: data output cable (code **7315-50M**, **7302-40M**)



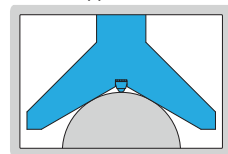
2188-55



pin gage
(included)



application

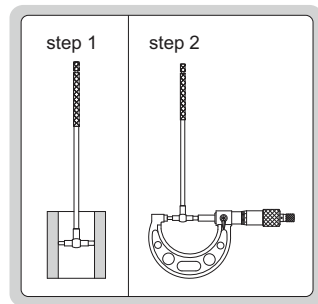
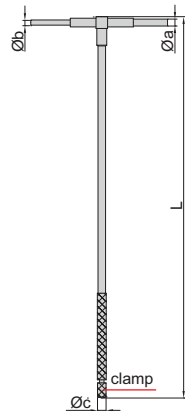


Code	Range (radius)	Resolution	Accuracy
2188-55	4-53mm/0.16-2.09"	0.01mm/0.0005"	$\pm 0.02\text{mm}$

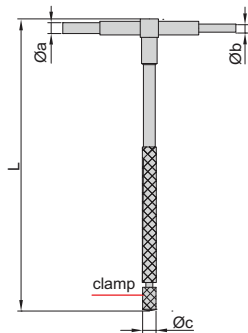
LONG HANDLE TELESCOPING GAGES

- For quick measurement of inside diameter of deep holes and width of slots
- Satin chrome finish

(mm)					
Code	Range	L	Øa	Øb	Øc
4209-1	8-12.7mm	300	3.9	2.9	6.2
4209-2	12.7-19mm	300	5.3	3.8	6.2
4209-3	19-32mm	300	5.3	3.8	6.2
4209-4	32-54mm	300	7.6	6.1	7.2
4209-5	54-90mm	300	7.6	6.1	7.2
4209-6	90-150mm	300	7.6	6.1	7.2



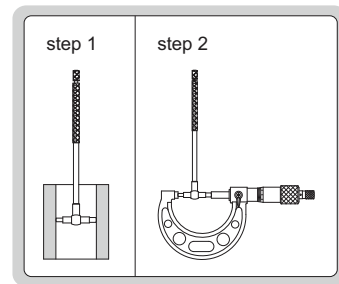
TELESCOPING GAGE SET



4206-1

- 6 gages per set
- For quick measurement of inside diameter of holes and width of slots
- Satin chrome finish

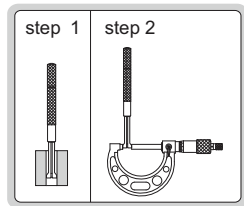
Code	Total range	Gages included
4206-1	8-150mm	8-12.7mm, 12.7-19mm, 19-32mm, 32-54mm, 54-90mm, 90-150mm



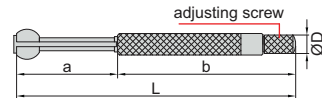
(mm)				
Range	L	Øa	Øb	Øc
8-12.7mm	115	3.9	2.9	6.2
12.7-19mm	115	5.3	3.8	6.2
19-32mm	115	5.3	3.8	6.2
32-54mm	137	7.6	6.1	7.2
54-90mm	137	7.6	6.1	7.2
90-150mm	137	7.6	6.1	7.2

SMALL HOLE GAGE SET

- 4 gages per set
- For small holes, slots and grooves, etc.
- Satin chrome finish



4208-1



Code	Total range	Gages included
4208-1	3-13mm	3-5mm, 5-7.5mm, 7.5-10mm, 10-13mm

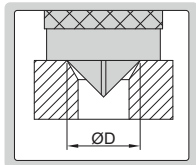
(mm)				
Range	L	a	b	ØD
3-5mm	76	24	52	5
5-7.5mm	79	27	52	5
7.5-10mm	88	30	58	6
10-13mm	91	34	58	6

DIGITAL INTERNAL CHAMFER GAGES

INSIZE^{PLUS}
MADE IN EUROPE



measurement principle

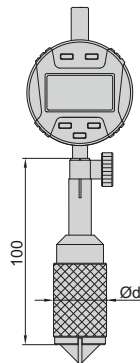


- Measure end diameter of chamfer or taper holes
- **2942-20** and **2942-203** are supplied with 5mm setting ring
- Resolution: 0.01mm/0.0005"
- Optional accessory: data output cable (code **7315-50M**, **7302-40M**)



2942-20

Unit: mm



**INSPECTION
CERTIFICATE**
TRACEABLE TO DKD

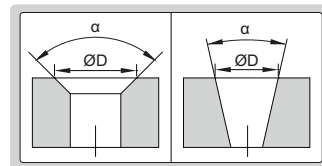
5mm setting ring for
2942-20 and **2942-203**



Code	Range ØD	Applicable angle α	Accuracy	Ød
2942-20*	0.5-20.1mm	0-90°	±0.02mm	28.3mm
2942-40*	20-40mm	0-90°	±0.02mm	50mm
2942-203*	0.5-20.1mm	90-127°	±0.04mm	28.3mm
2942-403*	20-40mm	90-127°	±0.04mm	50mm

*Supplied with manufacturer inspection certificate traceable to DKD Germany

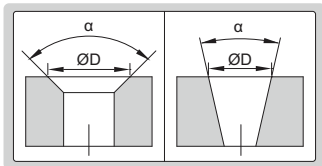
measure end diameter of
chamfer or taper holes



INTERNAL CHAMFER GAGES

INSIZE⁺ PLUS
MADE IN EUROPE

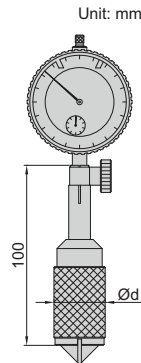
measure end diameter of
chamfer or taper holes



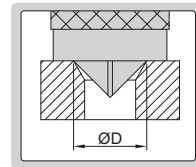
- Measure end diameter of chamfer or taper holes
- With limit pointers
- **2941-20** and **2941-203** are supplied with 5mm setting ring



2941-20



measurement principle



5mm setting ring for
2941-20 and **2941-203**



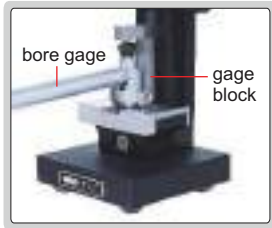
Code	Range ØD	Applicable angle α	Graduation	Accuracy	Ød
2941-20 *	0.5-20.1mm	0-90°	0.01mm	±0.02mm	28.3mm
2941-40 *	20-40mm	0-90°	0.01mm	±0.02mm	50mm
2941-203 *	0.5-20.1mm	90-127°	0.02mm	±0.04mm	28.3mm
2941-403 *	20-40mm	90-127°	0.02mm	±0.04mm	50mm

* Supplied with manufacturer inspection certificate traceable to DKD Germany

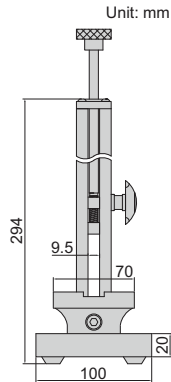


VIDEO

application



- Vertical and horizontal use
- To be used with gage blocks



7353-160

Code	Range	Repeatability	Remark
7353-160	0-160mm	1.2μm	with gage block set
7353-160W	0-160mm	1.2μm	without gage block set

BORE GAGE SETTERS

horizontal use



gage blocks for 7353-160



Gage block set for 7353-160

Blocks per set	Size (mm)	Step (mm)	Quantity	Remark
33	1.005		1 pc	grade 2 (ISO3650)
	1.01-1.09	0.01	9 pcs	
	1.1-1.9	0.1	9 pcs	
	1-9	1	9 pcs	
	10-30	10	3 pcs	
	50		1 pc	
	100		1 pc	

ANVILS FOR BORE GAGES



7350-160

Code	Applicable bore gages	Material of measuring face	Quantity per set	Measuring range of anvil (mm)
7350-10	6-10mm	steel	9 pcs	6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10
7350-18	10-18.5mm	ceramic	9 pcs	10, 11, 12, 13, 14, 15, 16, 17, 18
7350-35	18-35mm	ceramic	9 pcs	18, 20, 22, 24, 26, 28, 30, 32, 34
7350-60	35-60mm	ceramic	6 pcs	35, 40, 45, 50, 55, 60
7350-100	50-100mm	ceramic	11 pcs	50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100
7350-160	50-160mm	ceramic	12 pcs	50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105
7350-161	100-160mm	ceramic	12 pcs	50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105
7350-250	160-250mm	ceramic	5 pcs	160, 170, 180, 190, 200
7350-450	250-450mm	ceramic	5 pcs	250, 260, 270, 280, 290

- For bore gages **2852, 2152, 2322, 2122, 2127, 2724, 2824** and **2827**

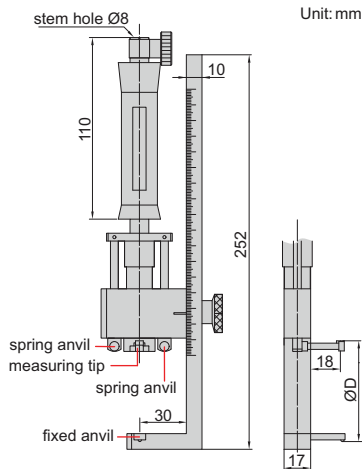
BORE GAGE FOR BARRIER INSIDE BORE

ATTENTION: NOT SUITABLE
FOR 0.001MM DIAL INDICATORS

MEASURE DIAMETER OF
BORES WITH BARRIER INSIDE



- Measure diameter of bores with barrier inside
- Optional accessory:
 - 0.01mm graduation dial indicators
 - Setting ring (code **6312**)



application



dial indicator
is optional



(mm)

Code	Range ØD	Diameter of barrier Ød	Travel of measuring tip	Accuracy (without dial indicator)	Measuring force
2348-210*	40-210mm	<D-14 (less than 50mm)*	1.6	0.018	2N

*For example:

When measuring size ØD is 40mm, D-14=26mm, so the diameter of barrier should be less than 26mm.
When measuring size ØD is 70mm, D-14=56mm, however it should be less than 50mm,
so the diameter of barrier should be less than 50mm.

2348-210

LONG HANDLES

INSIZE^{PLUS}

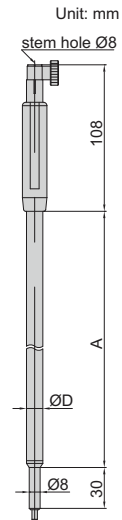
MADE IN EUROPE

- To assist deep-hole measurement
- Can be used for bore gages **2422**, **2428**, **2423** and **2424**

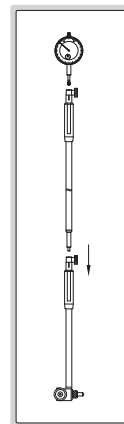
(mm)			
Code	Applicable bore gages	A	ØD
7352-500	above 35mm	438	12
7352-1000		938	12



7352-500



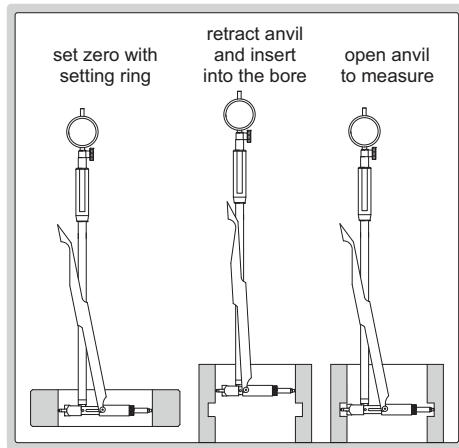
method of use



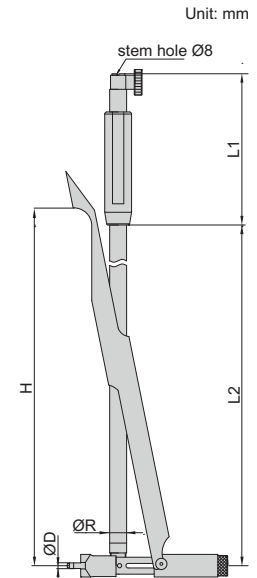
INTERNAL GROOVE BORE GAGES

INSIZE⁺ PLUS
MADE IN EUROPE

**INSPECTION
CERTIFICATE**
TRACEABLE TO NIST



- Measure diameter of internal grooves (width of groove > 3mm)
- Anvil is needed
- Optional accessory:
 - 0.01mm or 0.001mm graduation dial indicators
 - Setting ring (code **6312**)



(mm)

Code	Range	Retraction of anvil	Measuring depth H	Accuracy (without dial indicator)	Repeatability (without dial indicator)	ØR	ØD	L1	L2
2433-120 *	60-120mm	8.5	120	2µm	1µm	10	3	85	150
2433-180 *	120-180mm	23	230	2µm	1µm	12	4	108	285
2433-300 *	180-300mm	30	280	2µm	1µm	18	4	120	245

* Supplied with manufacturer inspection certificate traceable to NIST USA

ANVIL (OPTIONAL)

Code	Remark
2433-P □□□□	We design and make anvils according to the grooves to be measured. *

* Note: please provide the dimension of grooves to be measured.

MEASURE DIAMETER OF
BORES WITH BARRIER INSIDE

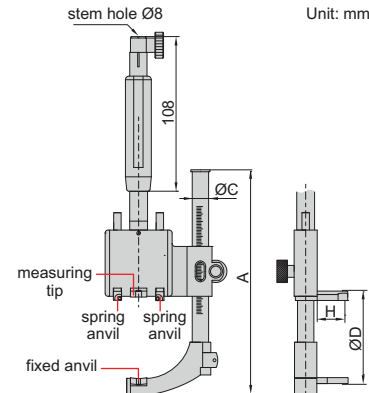
ATTENTION: NOT SUITABLE
FOR 0.001MM DIAL INDICATORS

BORE GAGES FOR BARRIER INSIDE BORE

INSIZE PLUS
MADE IN EUROPE



dial indicator
is optional

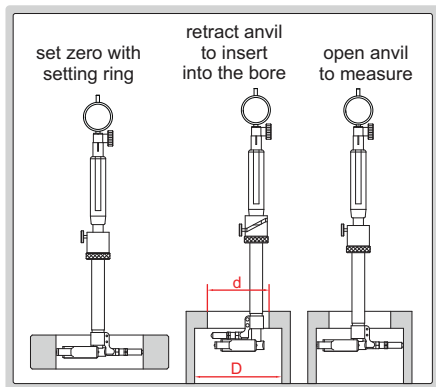


- Measure diameter of bores with barrier inside
- Optional accessory:
 - 0.01mm graduation dial indicators
 - Setting ring (code **6312**)

2432-105

(mm)									
Code	Range ØD	Diameter of barrier Ød	Travel of measuring tip	Measuring depth H	Accuracy (without dial indicator)	Measuring force	A	ØC	
2432-70	25-70mm	<D-6 (less than 45mm) *	2.5	12	0.01	1.5N	115	10	
2432-105	35-105mm	<D-11 (less than 70mm) *	3.0	18	0.01	2.5N	150	11	
2432-210	100-210mm	<D-20 (less than 130mm) *	3.5	30	0.015	2.5N	233	15	
2432-280	100-280mm	<D-20 (less than 130mm) *	3.5	30	0.015	2.5N	303	15	
2432-500	200-500mm	<D-20 (less than 240mm) *	3.5	30	0.02	2.5N	622	30	

* For example, range of **2432-70** is 25-70mm, diameter of barrier is <D-6 (less than 45mm)
 When measuring size is 40mm, D-6=34mm, so the maximum diameter of barrier is 34mm.
 When measuring size is 60mm, D-6=54mm, however it should be less than 45mm, so the maximum diameter of barrier is 45mm.



- Rotary anvil, to measure bores with small opening
D: bore diameter to be measured,
d: minimum opening diameter (see right drawing)
d=57mm ($D \leq 95\text{mm}$)
d=D-38 ($D > 95\text{mm}$)
- Optional accessory:
– 0.01mm or 0.001mm graduation
dial indicator or dial comparator
– Setting ring (code **6312**)

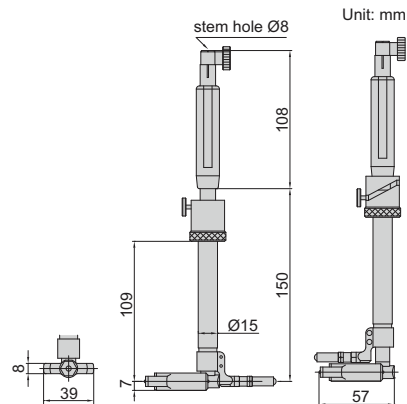
dial indicator
is optional

2921-150



ROTARY BORE GAGE

INSIZE PLUS
MADE IN EUROPE



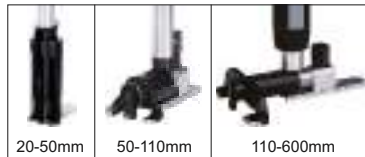
Code	Range	Accuracy (without dial indicator)	Repeatability * (without dial indicator)
2921-150	80-150mm	2 μm	1 μm

* Repeatability includes the error of rotary anvil

BORE GAGES FOR BLIND HOLES



- To measure diameter of shallow and blind holes
- Optional accessory:
 - 0.01mm or 0.001mm graduation dial indicators
 - Setting ring (code **6312**)
 - Long handle (code **7352**)
 - Bore gage setter

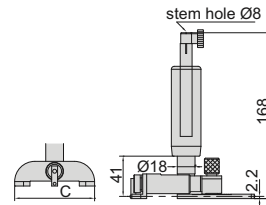
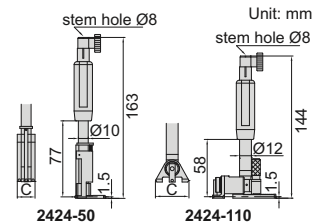


Code	Range	Accuracy (without dial indicator)	Repeatability (without dial indicator)	C
2424-50	20-50mm	4μm	1μm	18mm
2424-110	50-110mm	4μm	1μm	34mm
2424-300	110-300mm	4μm	1μm	81mm
2424-450	200-450mm	4μm	1μm	81mm
2424-600	300-600mm	4μm	1μm	140mm

dial indicator
is optional



2424-300



2424-300/450/600

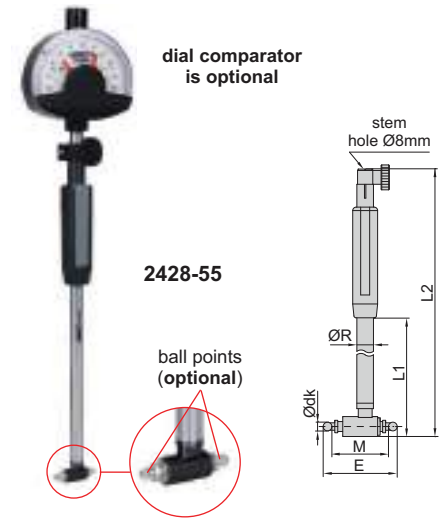
GEAR BORE GAGES

INSIZE PLUS
MADE IN EUROPE

RELATIVE PRODUCT: INTERNAL GEAR
TOOTH MICROMETER (CODE 3638)

- Tungsten carbide ball points, diameter accuracy 2µm
- Optional accessory:
 - Dial indicator or dial comparator
 - Ball points
 - Thread adaptor
 - Long handle (code 7352)

Code	Range (E)	Accuracy (without dial comparator)	Repeatability (without dial comparator)	ØR	L1	L2	Thread for ball points
2428-12	8-12mm	2µm	0.5µm	5	100	165	M1.6
2428-22	12-22mm	2µm	0.5µm	5	102	168	M1.6
2428-55	22-55mm	2µm	0.5µm	8	110	204	M2.5
2428-250	55-250mm	2µm	0.5µm	12	177	290	M4
2428-510	100-510mm	2µm	0.5µm	18	235	363	M4



Ball points (optional)

Ball point diameter Ødk	2428-12	2428-22	2428-55	2428-250	2428-510
	point thread M1.6	point thread M1.6	point thread M2.5	point thread M4	point thread M4
	point code	point code	point code	point code	point code
1mm	2428-A1	2428-E1	2428-B1	2428-C1	2428-C1
1.5mm	2428-A1D5	2428-E1D5	2428-B1D5	2428-C1D5	2428-C1D5
2mm	2428-A2	2428-E2	2428-B2	2428-C2	2428-C2
2.5mm	—	2428-E2D5	2428-B2D5	2428-C2D5	2428-C2D5
3mm	—	2428-E3	2428-B3	2428-C3	2428-C3
3.5mm	—	2428-E3D5	2428-B3D5	2428-C3D5	2428-C3D5
4mm	—	2428-E4	2428-B4	2428-C4	2428-C4
4.5mm	—	—	2428-B4D5	2428-C4D5	2428-C4D5
5mm	—	—	2428-B5	2428-C5	2428-C5
5.5mm	—	—	2428-B5D5	2428-C5D5	2428-C5D5
6mm	—	—	2428-B6	2428-C6	2428-C6
6.5mm	—	—	2428-B6D5	2428-C6D5	2428-C6D5
7mm	—	—	2428-B7	2428-C7	2428-C7
7.5mm	—	—	2428-B7D5	2428-C7D5	2428-C7D5
8mm	—	—	2428-B8	2428-C8	2428-C8
8.5mm	—	—	2428-B8D5	2428-C8D5	2428-C8D5
9mm	—	—	2428-B9	2428-C9	2428-C9
9.5mm	—	—	2428-B9D5	2428-C9D5	2428-C9D5
10mm	—	—	2428-B10	2428-C10	2428-C10

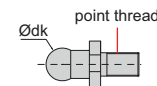
ball points (optional),
in pair



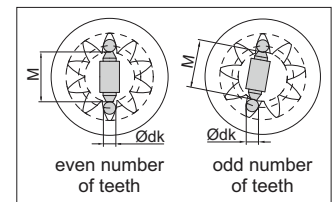
extension rod for points (included)



2428-55 extension rod for points



method of measurement



Thread adaptor (optional)

Code	Thread	Remark
2428-D1	M1.6/M2.5	For example, use 2428-E1 with 2428-D1 to replace 2428-B1
2428-D2	M2.5/M4	For example, use 2428-B1 with 2428-D2 to replace 2428-C1

BORE GAGE SET

INSIZE^{PLUS}
MADE IN EUROPE

dial comparator is optional



2423-S2

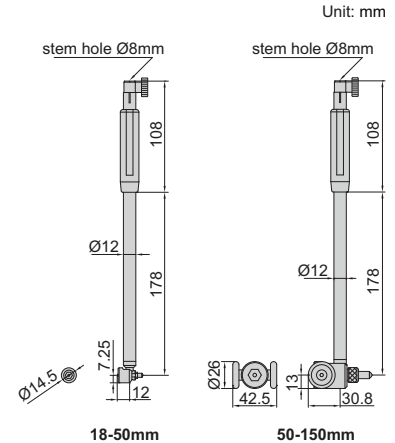
- Includes bore gages 18-50mm and 50-150mm
- Optional accessory:
 - 0.01mm or 0.001mm graduation dial indicator or dial comparator
 - Setting ring (code **6312**)
 - Long handle (code **7352**)
 - Bore gage setter



18-50mm



50-150mm



Code	Range	Accuracy (without dial comparator)	Repeatability (without dial comparator)
2423-S2	18-150mm	4µm	2µm

BORE GAGES

INSIZE^{PLUS}
MADE IN EUROPE

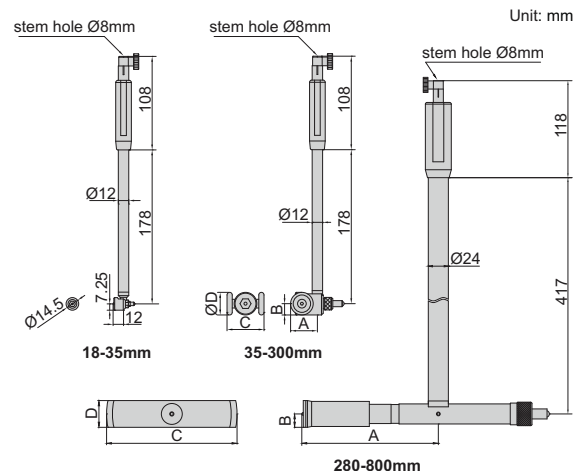
dial comparator
is optional

contact points



- Applicable for 0.01mm or 0.001mm graduation dial indicators
- Optional accessory:
 - Dial indicator or dial comparator
 - Setting ring (code **6312**)
 - Long handle (code **7352**)
 - Bore gage setter

2422-150



Code	Range	Accuracy (without dial comparator)	Repeatability (without dial comparator)
2422-35	18-35mm	4µm	2µm
2422-60	35-60mm	4µm	2µm
2422-150	50-150mm	4µm	2µm
2422-300	150-300mm	4µm	2µm
2422-510	280-510mm	3µm	1.5µm
2422-800	400-800mm	3µm	1.5µm

Code	A	B	C	D
2422-60	19.5mm	10.5mm	28mm	21mm
2422-150	30.8mm	13mm	42.5mm	26mm
2422-300	30.8mm	13mm	76.5mm	26mm
2422-510	164mm	16mm	156mm	32mm
2422-800	305mm	18mm	300mm	36mm

BORE GAGES FOR SMALL HOLES

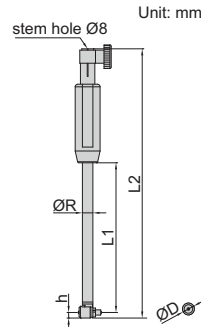
INSIZE^{PLUS}
MADE IN EUROPE

- Applicable for 0.01mm or 0.001mm, graduation dial indicators
- Carbide contact point and anvil
- Optional accessory: dial indicator or dial comparator, setting ring (code **6312**)

dial comparator
is optional



(mm)								
Code	Range	Accuracy (without dial comparator)	Repeatability (without dial comparator)	L1	L2	ØR	ØD	h
2425-6	4.5-6mm	2µm	0.5µm	80	147	4	4	2
2425-8	6-8mm	2µm	0.5µm	100	165	5	5.2	2.6
2425-12	8-12mm	2µm	0.5µm	100	166	5	6.5	3.25
2425-20	12-20mm	2µm	0.5µm	110	204	8	9	4.5

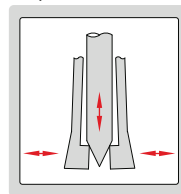


SPLIT TYPE DIAL BORE GAGE SETS FOR BLIND HOLES

INSIZE PLUS
MADE IN EUROPE

- Split type contact points
- Accuracy (without indicator): 3µm (measuring range 1.5~10mm),
4µm (measuring range 10~20.6mm)
- Repeatability (without indicator): 1µm
- Setting rings and dial indicators are optional

principle of measurement



2429-12

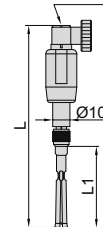
(mm)

Code	Range	Quantity of points	Measuring range of point	Measuring depth (L1)	Total length (L)	Material of points	Setting ring (optional)	
							Code	Diameter
2429-4	1.5-4.2	10	1.5-1.9	17	93	carbide	6312-1D75	1.75
			1.8-2.2	17	93	carbide	6312-2	2
			2.05-2.45	17	93	carbide	6312-2D25	2.25
			2.3-2.7	25	101	carbide	6312-2D5	2.5
			2.55-2.95	25	101	carbide	6312-2D75	2.75
			2.8-3.2	25	101	carbide	6312-3	3
			3.05-3.45	25	101	carbide	6312-3D25	3.25
			3.3-3.7	25	101	carbide	6312-3D5	3.5
			3.55-3.95	25	101	carbide	6312-3D75	3.75
2429-7D5	4.15-7.8	7	3.8-4.2	25	101	carbide	6312-4	4
			4.15-4.8	41	118	hard chromed	6312-4D5	4.5
			4.7-5.3	41	118	hard chromed	6312-5	5
			5.2-5.8	41	118	hard chromed	6312-5D5	5.5
			5.7-6.3	41	118	hard chromed	6312-6	6
			6.2-6.8	41	118	hard chromed	6312-6D5	6.5
			6.7-7.3	41	118	hard chromed	6312-7	7
2429-12	7.7-12.5	6	7.2-7.8	45	118	hard chromed	6312-7D5	7.5
			7.7-8.3	45	118	hard chromed	6312-8	8
			8.2-8.8	45	118	hard chromed	6312-8D5	8.5
			8.7-9.3	45	118	hard chromed	6312-9	9
			9.2-10.5	45	118	hard chromed	6312-10	10
			10.2-11.5	45	118	hard chromed	6312-11	11
2429-20	12.2-20.6	8	11.2-12.5	45	118	hard chromed	6312-12	12
			12.2-13.5	45	118	hard chromed	6312-13	13
			13.4-14.6	45	118	hard chromed	6312-14	14
			14.4-15.6	45	118	hard chromed	6312-15	15
			15.4-16.6	45	118	hard chromed	6312-16	16
			16.4-17.6	45	118	hard chromed	6312-17	17
			17.4-18.6	45	118	hard chromed	6312-18	18
			18.4-19.6	45	118	hard chromed	6312-19	19
			19.4-20.6	45	118	hard chromed	6312-20	20

dial indicator is optional



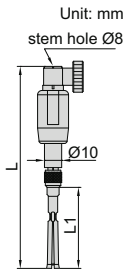
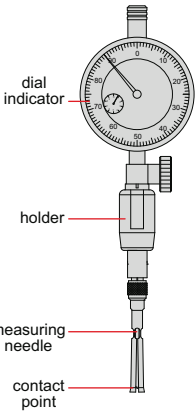
Unit: mm
stem hole Ø8



SPLIT TYPE DIAL BORE GAGES FOR BLIND HOLES

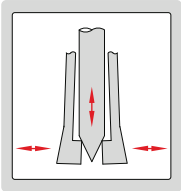


dial indicator
is optional



- Split type contact points
- Accuracy (without indicator):
3µm (measuring range 1.5~10mm),
4µm (measuring range 10~20.6mm)
- Repeatability (without indicator): 1µm
- Optional accessory:
digital/dial indicators or dial comparator

principle of measurement



Contact point					Measuring needle	Setting ring	
Code	Measuring range	Measuring depth (L1)	Total length (L)	Material of points	Code	Code	Diameter
2427-1D75	1.5-1.9	17	93	carbide	2426-N2D25	6312-1D75	1.75
2427-2	1.8-2.2	17	93	carbide		6312-2	2
2427-2D25	2.05-2.45	17	93	carbide		6312-2D25	2.25
2427-2D5	2.3-2.7	25	101	carbide	2426-N4	6312-2D5	2.5
2427-2D75	2.55-2.95	25	101	carbide		6312-2D75	2.75
2427-3	2.8-3.2	25	101	carbide		6312-3	3
2427-3D25	3.05-3.45	25	101	carbide		6312-3D25	3.25
2427-3D5	3.3-3.7	25	101	carbide		6312-3D5	3.5
2427-3D75	3.55-3.95	25	101	carbide		6312-3D75	3.75
2427-4	3.8-4.2	25	101	carbide	2427-N9	6312-4	4
2427-4D5	4.15-4.8	41	118	hard chromed		6312-4D5	4.5
2427-5	4.7-5.3	41	118	hard chromed		6312-5	5
2427-5D5	5.2-5.8	41	118	hard chromed		6312-5D5	5.5
2427-6	5.7-6.3	41	118	hard chromed		6312-6	6
2427-6D5	6.2-6.8	41	118	hard chromed		6312-6D5	6.5
2427-7	6.7-7.3	41	118	hard chromed		6312-7	7
2427-7D5	7.2-7.8	45	118	hard chromed		6312-7D5	7.5
2427-8	7.7-8.3	45	118	hard chromed		6312-8	8
2427-8D5	8.2-8.8	45	118	hard chromed	2427-N20	6312-8D5	8.5
2427-9	8.7-9.3	45	118	hard chromed		6312-9	9
2427-10	9.2-10.5	45	118	hard chromed		6312-10	10
2427-11	10.2-11.5	45	118	hard chromed		6312-11	11
2427-12	11.2-12.5	45	118	hard chromed		6312-12	12
2427-13	12.2-13.5	45	118	hard chromed		6312-13	13
2427-14	13.4-14.6	45	118	hard chromed		6312-14	14
2427-15	14.4-15.6	45	118	hard chromed		6312-15	15
2427-16	15.4-16.6	45	118	hard chromed		6312-16	16
2427-17	16.4-17.6	45	118	hard chromed		6312-17	17
2427-18	17.4-18.6	45	118	hard chromed		6312-18	18
2427-19	18.4-19.6	45	118	hard chromed		6312-19	19
2427-20	19.4-20.6	45	118	hard chromed		6312-20	20



2426-HOLDER1



2426-HOLDER2

HOLDER

Code	Retraction	Applicable points
2426-HOLDER1	without	all
2426-HOLDER2	with	all

SPLIT TYPE DIAL BORE GAGE SETS

INSIZE PLUS
MADE IN EUROPE

- Split type contact points
- Accuracy (without indicator):
3µm (measuring range 0.95~10mm),
4µm (measuring range 10~20.6mm)
- Repeatability (without indicator): 1µm
- Setting rings and dial indicators are optional

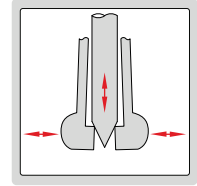


2421-121

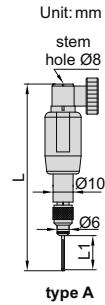
(mm)

Code	Range	Quantity of points	Measuring range of point	Measuring depth (L1)	Total length (L)	Material of points	Type of point	Setting ring (optional)	
								Code	Diameter
2421-1D4	0.95-1.55	5	0.95-1.15	13	89	carbide	A	6312-1	1
			1.07-1.25	13	89	carbide	A	6312-1D1	1.1
			1.17-1.35	13	89	carbide	A	6312-1D2	1.2
			1.27-1.45	13	89	carbide	A	6312-1D3	1.3
			1.37-1.55	13	89	carbide	A	6312-1D4	1.4
2421-4	1.5-4.2	10	1.5-1.9	17	93	carbide	A	6312-1D75	1.75
			1.8-2.2	17	93	carbide	A	6312-2	2
			2.05-2.45	17	93	carbide	A	6312-2D25	2.25
			2.3-2.7	25	101	carbide	A	6312-2D5	2.5
			2.55-2.95	25	101	carbide	A	6312-2D75	2.75
			2.8-3.2	25	101	carbide	A	6312-3	3
			3.05-3.45	25	101	carbide	A	6312-3D25	3.25
			3.3-3.7	25	101	carbide	A	6312-3D5	3.5
			3.55-3.95	25	101	carbide	A	6312-3D75	3.75
			3.8-4.2	25	101	carbide	A	6312-4	4
2421-7D5	4.15-7.8	7	4.15-4.8	41	118	hard chromed	B	6312-4D5	4.5
			4.7-5.3	41	118	hard chromed	B	6312-5	5
			5.2-5.8	41	118	hard chromed	B	6312-5D5	5.5
			5.7-6.3	41	118	hard chromed	B	6312-6	6
			6.2-6.8	41	118	hard chromed	B	6312-6D5	6.5
			6.7-7.3	41	118	hard chromed	B	6312-7	7
			7.2-7.8	45	118	hard chromed	C	6312-7D5	7.5
2421-12	7.7-12.5	6	7.7-8.3	45	118	hard chromed	C	6312-8	8
			8.2-8.8	45	118	hard chromed	C	6312-8D5	8.5
			8.7-9.3	45	118	hard chromed	C	6312-9	9
			9.2-10.5	45	118	hard chromed	C	6312-10	10
			10.2-11.5	45	118	hard chromed	C	6312-11	11
			11.2-12.5	45	118	hard chromed	C	6312-12	12
2421-20	12.2-20.6	8	12.2-13.5	45	118	hard chromed	C	6312-13	13
			13.4-14.6	45	118	hard chromed	C	6312-14	14
			14.4-15.6	45	118	hard chromed	C	6312-15	15
			15.4-16.6	45	118	hard chromed	C	6312-16	16
			16.4-17.6	45	118	hard chromed	C	6312-17	17
			17.4-18.6	45	118	hard chromed	C	6312-18	18
			18.4-19.6	45	118	hard chromed	C	6312-19	19
			19.4-20.6	45	118	hard chromed	C	6312-20	20
2421-121	4.15-12.5	13	4.15-4.8	41	118	hard chromed	B	6312-4D5	4.5
			4.7-5.3	41	118	hard chromed	B	6312-5	5
			5.2-5.8	41	118	hard chromed	B	6312-5D5	5.5
			5.7-6.3	41	118	hard chromed	B	6312-6	6
			6.2-6.8	41	118	hard chromed	B	6312-6D5	6.5
			6.7-7.3	41	118	hard chromed	B	6312-7	7
			7.2-7.8	45	118	hard chromed	C	6312-7D5	7.5
			7.7-8.3	45	118	hard chromed	C	6312-8	8
			8.2-8.8	45	118	hard chromed	C	6312-8D5	8.5
			8.7-9.3	45	118	hard chromed	C	6312-9	9
			9.2-10.5	45	118	hard chromed	C	6312-10	10
			10.2-11.5	45	118	hard chromed	C	6312-11	11
			11.2-12.5	45	118	hard chromed	C	6312-12	12

principle of measurement



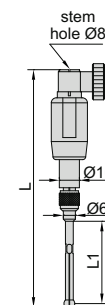
dial indicator is optional



type A

type A

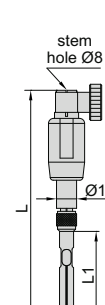
dial indicator is optional



type B

type B

dial indicator is optional



type C

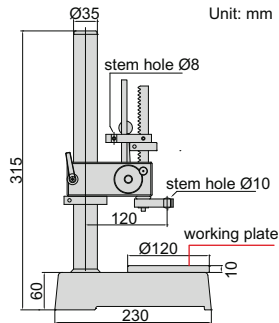
type C

STAND FOR SPLIT DIAL BORE GAGES

- For split type dial bore gages **2421, 2426, 2427** and **2429**
- Maximum working stroke: 50mm
- Accept dial indicator to show measuring depth

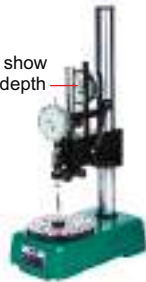
Code

2491-250



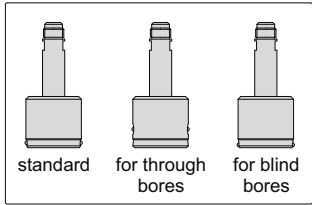
2491-250

accept dial
indicator to show
measuring depth

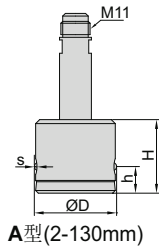
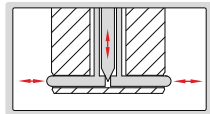


BORE PLUG GAGES

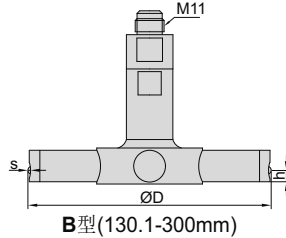
INSIZE PLUS
MADE IN EUROPE



principle of measurement



A型(2-130mm)



B型(130.1-300mm)



SPECIFICATION OF PROBE

(mm)										
Range	2-3	3.1-4	4.1-6	6.1-9	9.1-12	12.1-20	20.1-40	40.1-60	60.1-130	130.1-300
Type	A	A	A	A	A	A	A	A	A	B
Travel of point (s)	0.15	0.15	0.15	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Height of point (h)	standard	1	1.5	1.5	2.5	2.5	2.5	3.5	3.5	6
	for through bores	—	6	6	6	10	10	10	10	—
	for blind bores	0.7	1	1	1	1	1	1.2	1.2	3
Height of probe (H)	17.5	26	10	15	15	15	20	28	33	—
Repeatability	0.001	0.001	0.001	0.0005	0.0005	0.0005	0.0005	0.0005	0.001	0.002

PROBE AND SLEEVE

Code	Type
4653-A□□□□	standard
4653-B□□□□	for through bores
4653-C□□□□	for blind bores

Ordering examples: (mm)

Code	Type	Range
4653-A30D6H7*	standard	30.6H7

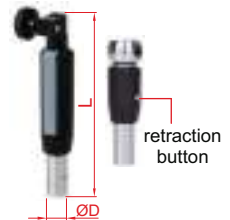
* "D" stands for "."



HANDLE

Code	Length (L)	Diameter (ØD)	Retraction
4653-150	45mm	12mm	without
4653-1105	105mm	12mm	without
4653-1235	235mm	12mm	without
4653-2145	145mm	18mm*	without
4653-2235	235mm	18mm*	without
4653-H70	70mm	12mm	with

* When measuring range is greater than 60mm, recommended to use the 18mm handle



DEPTH STOP

Code	Applicable for probe
4653-G□□□□	3.0~60mm
4653-J□□□□	30~130mm

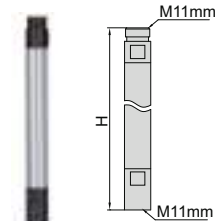
Ordering examples: (mm)

Code	Applicable for probe
4653-G22H7	22H7



EXTENSION ROD FOR HANDLE

Code	Length (H)
4653-R50	50mm
4653-R100	100mm
4653-R250	250mm
4653-R500	500mm



SETTING RING

Code
6312-□□□□□



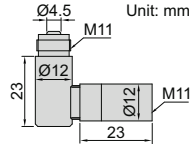
HANDLE FOR INDUCTIVE PROBE

Code
4653-F110



90° ADAPTER

Code
4653-K1



BASE

Code	Applicable holding stem
4663-STAND	Ø12mm
4663-STAND1	Ø18mm



MEASURING TIPS FOR INTERNAL SCREW THREAD MICROMETERS

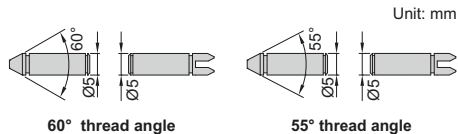
- Supplied in pair
- Suitable for **3226** series micrometers



Metric and unified screw (60° thread angle)

Code	Pitch
7321-T11	0.4-0.5mm/64-48TPI
7321-T12	0.6-0.9mm/44-28TPI
7321-T13	1-1.75mm/24-14TPI
7321-T14	2-3mm/13-9TPI
7321-T15	3.5-5mm/8-5TPI
7321-T16	5.5-7mm /4.5-3.5TPI
7321-T1S	6 pairs/set, including all above tips

7321-T1S



Whitworth screw (55° thread angle)

Code	Pitch
7321-T21	60-48TPI
7321-T22	48-40TPI
7321-T23	40-32TPI
7321-T24	32-24TPI
7321-T25	24-18TPI
7321-T26	18-14TPI
7321-T27	14-10TPI
7321-T28	10-7TPI
7321-T29	7-4.5TPI
7321-T210	4.5-3.5TPI
7321-T2S	10 pairs/set, including all above tips

IP65
WATERPROOF

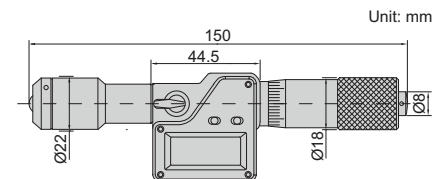
DATA
OUTPUT

DIGITAL TUBULAR INSIDE MICROMETERS



3521-1000

- Micrometer head: 150-175mm
- Graduation: 0.001mm/0.00005"
- Accuracy: $(3+n+L/50)\mu\text{m}$
 n = number of rods
 L =maximum measuring length (mm)
- Carbide measuring faces
- The diameter of extension rods is 22mm
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC
- Data output
- LR44 battery, automatic power off
- Supplied with setting standards
- Optional accessory: data output cable
 (code **7315-30**, **7302-30**)



Code	Range	Travel of micrometer head	Extension rods
3521-175	150-175mm	25mm	—
3521-1000	150-1000mm	25mm	25mm, 50mm (2 pcs), 100mm, 200mm, 400mm
3521-1500	150-1500mm	25mm	25mm, 50mm (2 pcs), 100mm (2 pcs), 200mm, 400mm (2 pcs)
3521-2000	150-2000mm	25mm	25mm, 50mm (2 pcs), 100mm, 200mm (2 pcs), 400mm (3 pcs)

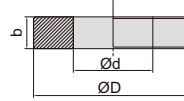
HALKA MASTAR



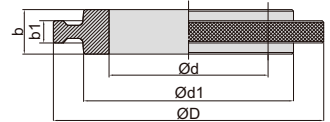
- İç çap mikrometreleri, üç ayaklı mikrometreler ve silindirik komparatörlerinin sıfırlaması içindir
- Sapma (sipariş verilen ve tedarik edilen master üstünde yazan ölçü değerleri arasındaki fark)
Örnek olarak, sipariş verilen ölçü Ø10,125mm; master üstünde yazan ölçü değeri Ø10,127mm olabilir
- DIN2250-1:2008 standardına uygundur



6312-20



Ø1,5mm-100mm



Ø100mm-315mm

ÖLÇÜ MASTAR ÜRETİLEBİLİR; ÖRNEK; Ø17,085MM; Ø1,500MM VE Ø315,000MM ARASI ÖZEL

Çap d	b	D	Sapma	Yuvarlak ve silindirik
Ø1,5-2,5	4	22	±2,0µm	0,3µm
Ø2,5-3	5	22	±2,0µm	0,3µm
Ø3-5	5	22	±2,0µm	0,4µm
Ø5-10	8	32	±2,0µm	0,4µm
Ø10-15	10	38	±3,0µm	0,5µm
Ø15-18	12	45	±3,0µm	0,5µm
Ø18-20	12	45	±3,0µm	0,6µm
Ø20-25	14	53	±3,0µm	0,6µm
Ø25-30	16	63	±4,0µm	0,6µm
Ø30-32	16	63	±4,0µm	0,7µm
Ø32-40	18	71	±4,0µm	0,7µm
Ø40-50	20	85	±4,0µm	0,7µm
Ø50-60	20	100	±4,0µm	0,8µm
Ø60-70	24	112	±4,0µm	0,8µm
Ø70-80	24	125	±4,0µm	0,8µm
Ø80-90	24	140	±4,0µm	1,0µm
Ø90-100	24	160	±4,0µm	1,0µm

Çap d	b	b1	d1	D	Sapma	Yuvarlak ve silindirik
Ø100-110	28	14	132	170	±5,0µm	1,0µm
Ø110-120	28	16	140	180	±5,0µm	1,0µm
Ø120-130	28	16	150	190	±6,0µm	1,2µm
Ø130-140	28	18	160	200	±6,0µm	1,2µm
Ø140-150	28	18	170	212	±6,0µm	1,2µm
Ø150-160	28	20	180	224	±6,0µm	1,2µm
Ø160-170	32	20	190	236	±6,0µm	1,2µm
Ø170-180	32	20	200	250	±6,0µm	1,2µm
Ø180-190	32	22	212	265	±7,0µm	1,4µm
Ø190-200	32	22	224	280	±7,0µm	1,4µm
Ø200-212	32	22	236	300	±7,0µm	1,4µm
Ø212-224	32	25	250	315	±7,0µm	1,4µm
Ø224-236	36	25	265	335	±7,0µm	1,4µm
Ø236-250	36	28	280	355	±7,0µm	1,4µm
Ø250-265	36	28	300	375	±8,0µm	1,6µm
Ø265-280	36	28	315	400	±8,0µm	1,6µm
Ø280-300	36	32	335	425	±8,0µm	1,6µm
Ø300-315	36	32	355	450	±8,0µm	1,6µm

** Örnek olarak Ø3-5mm, Ø3mm < çap ≤ 5mm demektir

Kod	Boyut
6312-1D5*	Ø1,5
6312-2*	Ø2
6312-3*	Ø3
6312-4*	Ø4
6312-5*	Ø5
6312-6*	Ø6
6312-7*	Ø7
6312-8*	Ø8
6312-9*	Ø9
6312-10*	Ø10
6312-11*	Ø11
6312-12*	Ø12
6312-13*	Ø13
6312-14*	Ø14
6312-15*	Ø15
6312-16*	Ø16

Kod	Boyut
6312-17*	Ø17
6312-18*	Ø18
6312-19*	Ø19
6312-20*	Ø20
6312-21*	Ø21
6312-22*	Ø22
6312-23*	Ø23
6312-24*	Ø24
6312-25*	Ø25
6312-26*	Ø26
6312-27*	Ø27
6312-28*	Ø28
6312-29*	Ø29
6312-30*	Ø30
6312-31*	Ø31
6312-32*	Ø32

Kod	Boyut
6312-33*	Ø33
6312-34*	Ø34
6312-35*	Ø35
6312-36*	Ø36
6312-37*	Ø37
6312-38*	Ø38
6312-39*	Ø39
6312-40*	Ø40
6312-41*	Ø41
6312-42*	Ø42
6312-43*	Ø43
6312-44*	Ø44
6312-45*	Ø45
6312-46*	Ø46
6312-47*	Ø47
6312-48*	Ø48

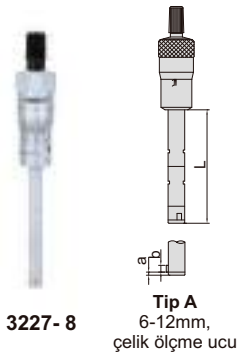
Kod	Boyut
6312-49*	Ø49
6312-50*	Ø50
6312-55*	Ø55
6312-60*	Ø60
6312-62*	Ø62
6312-65*	Ø65
6312-70*	Ø70
6312-75*	Ø75
6312-80*	Ø80
6312-85*	Ø85
6312-87*	Ø87
6312-90*	Ø90
6312-95*	Ø95
6312-100*	Ø100
6312-112D5*	Ø112,5
6312-125*	Ø125

Kod	Boyut
6312-137D5*	Ø137,5
6312-150*	Ø150
6312-162D5*	Ø162,5
6312-175*	Ø175
6312-187D5*	Ø187,5
6312-200*	Ø200
6312-212D5*	Ø212,5
6312-225*	Ø225
6312-237D5*	Ø237,5
6312-250*	Ø250
6312-262D5*	Ø262,5
6312-275*	Ø275
6312-287D5*	Ø287,5
6312-300*	Ø300

* Üretici kalibrasyon sertifikası ile tedarik edilir

ÜÇ AYAKLI MİKROMETRELER

**KALİBRASYON
SERTİFİKASI**

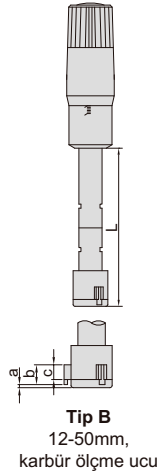


3227- 8

Tip A
6-12mm,
çelik ölçme ucu



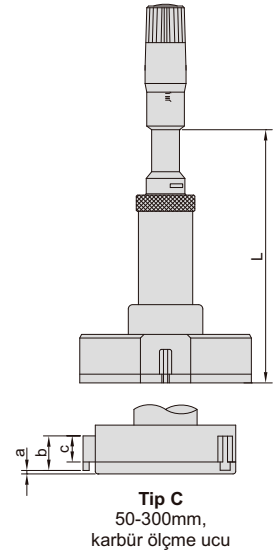
3227- 16



Tip B
12-50mm,
karbür ölçme ucu



3227-125



Tip C
50-300mm,
karbür ölçme ucu

- DIN863-4 Standardına uygundur
- 6-12mm: hassasiyet 0,001mm
- 12-300mm: hassasiyet 0,005mm
- Cırcırlı
- Opsiyonel aksesuar: sıfırlama mastarı (kod **6312**), mikrometre standı ve kelepçe (kod **6301** ve **6301-2**)

sıfırlama mastarı



6-100mm: dahil,
100-300mm: opsiyonel

uzatma çubuğu



dahil

Bireysel

(mm)

Kod	Ölçüm aralığı	Tip	Doğruluk	Sıfırlama mastarı	Uzatma çubuğu (dahil)	L	a	b	c
3227-8 *	6-8mm	A	4µm	Ø6mm (dahil)	100mm	54,5	1,5	2,5	—
3227-10 *	8-10mm	A	4µm	Ø8mm (dahil)	100mm	54,5	1,5	2,5	—
3227-12 *	10-12mm	A	4µm	Ø10mm (dahil)	100mm	54,5	1,5	2,5	—
3227-16 *	12-16mm	B	4µm	Ø16mm (dahil)	150mm	80	0,5	6	4,5
3227-20 *	16-20mm	B	4µm	Ø16mm (dahil)	150mm	80	0,5	6	4,5
3227-25 *	20-25mm	B	4µm	Ø25mm (dahil)	150mm	90	0,5	8	6
3227-30 *	25-30mm	B	4µm	Ø25mm (dahil)	150mm	90	0,5	8	6
3227-40 *	30-40mm	B	4µm	Ø40mm (dahil)	150mm	97	0,5	14	12
3227-50 *	40-50mm	B	5µm	Ø40mm (dahil)	150mm	97	0,5	14	12
3227-63 *	50-63mm	C	5µm	Ø62mm (dahil)	150mm	114	0,5	17,5	14,5
3227-75 *	62-75mm	C	5µm	Ø62mm (dahil)	150mm	114	0,5	17,5	14,5
3227-88 *	75-88mm	C	5µm	Ø87mm (dahil)	150mm	114	0,5	17,5	14,5
3227-100 *	87-100mm	C	5µm	Ø87mm (dahil)	150mm	114	0,5	17,5	14,5
3227-125 *	100-125mm	C	5µm	opsiyonel	150mm	145	0,5	19,5	14,5
3227-150 *	125-150mm	C	5µm	opsiyonel	150mm	145	0,5	19,5	14,5
3227-175 *	150-175mm	C	5µm	opsiyonel	150mm	145	0,5	19,5	14,5
3227-200 *	175-200mm	C	5µm	opsiyonel	150mm	145	0,5	19,5	14,5
3227-225	200-225mm	C	7µm	opsiyonel	150mm	145	0,5	19,5	14,5
3227-250	225-250mm	C	7µm	opsiyonel	150mm	145	0,5	19,5	14,5
3227-275	250-275mm	C	7µm	opsiyonel	150mm	145	0,5	19,5	14,5
3227-300	275-300mm	C	7µm	opsiyonel	150mm	145	0,5	19,5	14,5

kıskaçlı mikrometre standı (opsiyonel)



Ayar

Kod	Ölçüm aralığı	Mikrometreler dahildir	Sıfırlama mastarı (dahil)	Uzatma çubuğu (dahil)
3227-123 *	6-12mm	6-8mm, 8-10mm, 10-12mm	Ø6mm, Ø8mm, Ø10mm	100mm
3227-202 *	12-20mm	12-16mm, 16-20mm	Ø16mm	150mm
3227-504 *	20-50mm	20-25mm, 25-30mm, 30-40mm, 40-50mm	Ø25mm, Ø40mm	150mm
3227-1004 *	50-100mm	50-63mm, 62-75mm, 75-88mm, 87-100mm	Ø62mm, Ø87mm	150mm

* Üretici kalibrasyon sertifikası ile tedarik edilir



3227-504

BİLGİ ÇIKIŞI

- İç ve dış çapları ölçmek içindir
- Otomatik uyarı, iç ve dış çap göstergesi
- Titanyum kol hafiftir
- Işıklı LCD ekran, 180° otomatik dönebilme
- 12 okuma ve ortalama hesap etme hafızası
- Minium ve maksimum ölçme modu ile
- Açı gösterilebilir



CD yazılım (dahil)



ÇAP ÖLÇER
KOD ISQ-RA600
INSIZE PLUS
İTALYAN MALI



dış çap ölçümü



iç çap ölçümü

ÖZELLİK

Ölçüm aralığı	dış	Ø500~6000mm/19,69~236,22"
	iç	Ø1100~6000mm/43,31~236,22"
Çözünürlük		0,01mm/0,001"
Doğruluk		$\pm(0,01+D^2/30)$ mm (D metre cinsinden ölçülecek olan çaptır)
Güç kaynağı		şarj edilebilir pil (8 saatlik çalışma için)
Ağırlık		3,8kg

Çaplar ile doğruluk örnekleri

Çap	Doğruluk
500mm	$\pm 0,018$ mm
1000mm	$\pm 0,043$ mm
1500mm	$\pm 0,085$ mm
2000mm	$\pm 0,143$ mm
2500mm	$\pm 0,218$ mm
3000mm	$\pm 0,310$ mm
4000mm	$\pm 0,543$ mm
5000mm	$\pm 0,843$ mm
6000mm	$\pm 1,210$ mm

STANDART TESLİMAT

Ana ünite	1 parça
AC/DC adaptör	1 parça
USB kablo ve yazılım	1 parça



yazılım (dahil), bilgi çıkışı, kaydet ve yazdır

İÇ VİDA MİKROMETRESİ

INSIZE PLUS
ALMAN MALI

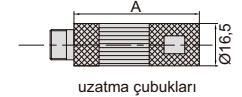
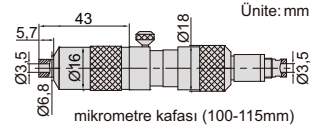
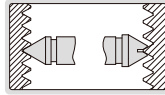


3641-200

- Çark çapı ölçülür
- Uzatma çubuk uçları, düzdür
- Opsiyonel aksesuar:
iç vida mikrometresi için
ölçüm uçlar (kod 7385)

Mikrometre kafası

Ölçüm aralığı	Hassasiyet	Doğruluk
100-115mm	0,01mm	±4µm
150-175mm	0,01mm	±4µm



(mm)

Kod	Ölçüm aralığı	Mikrometre kafası	Uzatma çubukları (A)	Uygulanabilir uçlar
3641-200	100-205mm	100-115mm	15, 25, 50	gövde uzunluğu L=13,5 mm
3641-500	100-505mm	100-115mm	15, 25, 50, 100, 200	gövde uzunluğu L=13,5 mm
3641-900	100-905mm	100-115mm	15, 25, 50, 100, 200, 400	gövde uzunluğu L=13,5 mm
3641-1100	150-1150mm	150-175mm	25, 50, 100, 200, 200, 400	gövde uzunluğu L=13,5 mm

Uzatma çubuğu

Uzunluk (A)	Doğruluk
15mm	±1µm
25mm	±1,25µm
50mm	±1,25µm
100mm	±2µm
200mm	±3,5µm
400mm	±4,5µm

İÇ VİDA MİKROMETRESİ

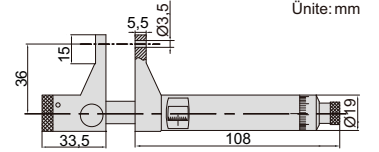
INSIZE PLUS
ALMAN MALI

uçlar dahil değildir

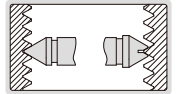


3640-45

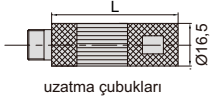
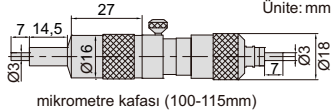
- Vida adımı çapı ölçer
- Hassasiyet 0,01mm
- Cırcırlı
- Opsiyonel aksesuar: dış vida mikrometre için ölçüm ucu (kod 7384)



Kod	Ölçüm aralığı	Doğruluk	Uygulanabilir uçlar
3640-45	20-45mm	4µm	gövde uzunluğu L=5mm
3640-70	45-70mm	5µm	gövde uzunluğu L=5mm
3640-95	70-95mm	5µm	gövde uzunluğu L=13,5mm
3640-120	95-120mm	6µm	gövde uzunluğu L=13,5mm



İLGİLİ ÜRÜN: SİLİNDİR
KOMPARATÖR (KOD 2428)



- Çark çapı ölçülür
- Uzatma çubuk uçları, düzdür
- Opsiyonel aksesuar: bilya uçlar (kod 7383)

İlk olarak bilya
uçlar kurulur



bilya uçlar
dahil değildir



bilya uçlar
dahil değildir

3638-200

Mikrometre kafası

Ölçüm aralığı	Hassasiyet	Doğruluk
100-115mm	0,01mm	$\pm 4\mu\text{m}$
150-175mm	0,01mm	$\pm 4\mu\text{m}$

(mm)

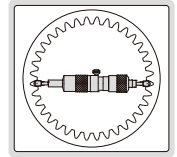
Kod	Ölçüm aralığı	Mikrometre kafası	Uzatma çubukları (L)
3638-200	100-205mm	100-115mm	15, 25, 50
3638-500	100-505mm	100-115mm	15, 25, 50, 100, 200
3638-900	100-905mm	100-115mm	15, 25, 50, 100, 200, 400
3638-1100	150-1150mm	150-175mm	25, 50, 100, 200, 200, 400

DİŞLİ ÇARK MİKROMETRESİ

INSIZE PLUS
ALMAN MALI

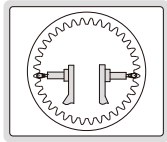
Uzatma çubuğu

Uzunluk (L)	Doğruluk
15mm	$\pm 1\mu\text{m}$
25mm	$\pm 1,25\mu\text{m}$
30mm	$\pm 1,25\mu\text{m}$
50mm	$\pm 1,25\mu\text{m}$
100mm	$\pm 2\mu\text{m}$
200mm	$\pm 3,5\mu\text{m}$
400mm	$\pm 4,5\mu\text{m}$



İLGİLİ ÜRÜN: SİLİNDİR
KOMPARATÖR (KOD 2428)

- Çark çapı ölçülür
- Hassasiyet 0,01 mm
- Cırcırlı
- Opsiyonel aksesuar:
bilya uçlar (kod 7383)



ilk olarak bilya
uçlar kurulur



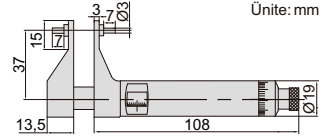
bilya uçlar dahil değildir



3637-50

DİŞLİ ÇARK MİKROMETRESİ

INSIZE PLUS
ALMAN MALI



DİJİTAL SABİT MİLLİ İÇ ÇAP MİKROMETESİ (BORU TİP)

INSIZE PLUS
ALMAN MALI

SABİT MİL

BİLGİ
ÇIKIŞI

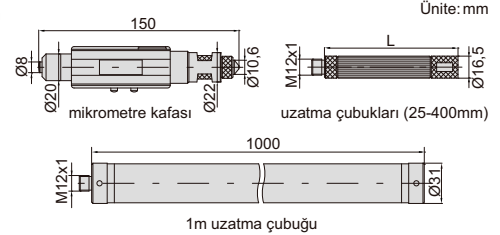
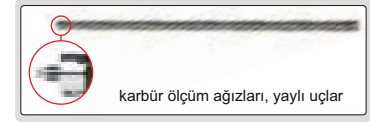
YAYLI ÖLÇME UCU



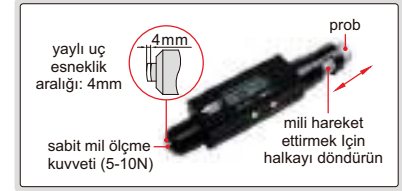
3635-950

- Mikrometre kafası: 150-175mm
- Mikrometre kafası ve uzatma çubukları için karrbür ölçme ağızları
- Uzatma çubuk uçları, yaylıdır
- Bilgi çıkışı
- Tuşlar: mm/inch, max./min. değer bulma, tolerans ölçümü, beklet aç/kapa, ıfırla
- CR2032 pil, otomatik kapanma
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7303-1)

1m karbon fiber uzatma çubuğu, hafif ve deforme olmaz,



sabit mil, yaylı uç ve max./min. Değer bulma; doğru ölçüm konumu bulmaya yardımcı olur,



Uzatma çubuğu

Uzunluk (L)	Doğruluk	Ağırlık	Materyal
25mm	±1,25µm	37g	çelik
50mm	±1,25µm	65g	çelik
100mm	±2µm	113g	çelik
200mm	±3,5µm	208g	çelik
400mm	±4,5µm	402g	çelik
1000mm	±7,5µm	909g	karbon fiber

Mikrometre kafası

Ölçüm aralığı	Çözünürlük	Doğruluk	Tekrarlılık	Ölçme kuvveti	Ağırlık
150-175mm	0,001mm/0,00005" 0,01mm/0,0005" (açılıp kapanabilir)	±4µm	1µm	5-10N	275g

INSIZE⁺ PLUS
ALMAN MALI

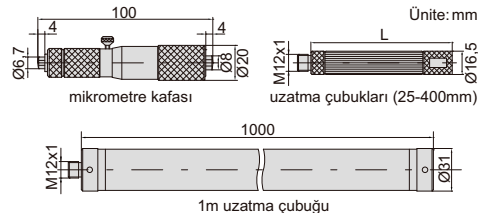


- 3634-1300**

Kod	Ölçüm aralığı	Uzatma çubukları (mm)
3634-350	100-350mm	25, 200
3634-500	100-500mm	25, 50, 100, 200
3634-1300	100-1300mm	25, 50, 100, 200, 400 (2 parça)
3634-1500	100-1500mm	25, 50, 100, 200 (2 parça), 400 (2 parça)
3634-2100	100-2100mm	25, 50, 100, 200, 400 (4 parça)
3634-3100	100-3100mm	25, 50, 100, 200 (2 parça), 400, 1000 (2 parça)
3634-4100	100-4100mm	25, 50, 100, 200 (2 parça), 400, 1000 (3 parça)
3634-5100	100-5100mm	25, 50, 100, 200 (2 parça), 400, 1000 (4 parça)
3634-6100	100-6100mm	25, 50, 100, 200 (2 parça), 400, 1000 (5 parça)



karbür ölçüm ağızları, yaylı uçlar



Ölçüm aralığı	Hassasiyet	Doğruluk	Ağırlık
100-125mm	0,01mm	±4µm	154g

Uzunluk (L)	Doğruluk	Ağırlık	Materyal
25mm	±1,25µm	37g	çelik
50mm	±1,25µm	65g	çelik
100mm	±2µm	113g	çelik
200mm	±3,5µm	208g	çelik
400mm	±4,5µm	402g	çelik
1000mm	±7,5µm	909g	karbon fiber

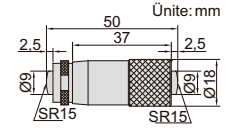
İÇ ÇAP MİKROMETRE (BORU TİP)

- 500 mm mikrometreler; DIN863-4 Standardına uygundur
- Hassasiyet 0,01mm
- Karbür ölçüm ağızları

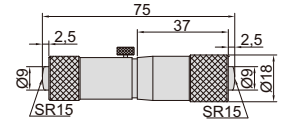


3229-225

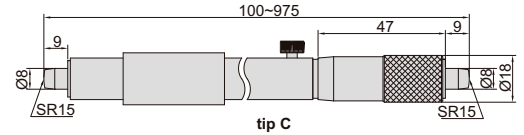
Kod	Ölçüm aralığı	Tip	Doğruluk
3229-75	50-75mm	A	5µm
3229-100	75-100mm	B	5µm
3229-125	100-125mm	C	6µm
3229-150	125-150mm	C	6µm
3229-175	150-175mm	C	7µm
3229-200	175-200mm	C	7µm
3229-225	200-225mm	C	8µm
3229-250	225-250mm	C	8µm
3229-275	250-275mm	C	9µm
3229-300	275-300mm	C	9µm
3229-325	300-325mm	C	9µm
3229-350	325-350mm	C	9µm
3229-375	350-375mm	C	10µm
3229-400	375-400mm	C	10µm
3229-425	400-425mm	C	10µm
3229-450	425-450mm	C	10µm
3229-475	450-475mm	C	11µm
3229-500	475-500mm	C	11µm
3229-525	500-525mm	C	11µm
3229-550	525-550mm	C	11µm
3229-575	550-575mm	C	11µm
3229-600	575-600mm	C	12µm
3229-625	600-625mm	C	12µm
3229-650	625-650mm	C	12µm
3229-675	650-675mm	C	13µm
3229-700	675-700mm	C	13µm
3229-725	700-725mm	C	13µm
3229-750	725-750mm	C	14µm
3229-775	750-775mm	C	14µm
3229-800	775-800mm	C	14µm



tip A



tip B



tip C

Kod	Ölçüm aralığı	Tip	Doğruluk
3229-825	800-825mm	C	15µm
3229-850	825-850mm	C	15µm
3229-875	850-875mm	C	15µm
3229-900	875-900mm	C	16µm
3229-925	900-925mm	C	16µm
3229-950	925-950mm	C	16µm
3229-975	950-975mm	C	17µm
3229-1000	975-1000mm	C	17µm

ÜÇ AYAKLI MİKROMETRE (GENİŞ ÖLÇÜM ARALIKLI)

**KALİBRASYON
SERTİFİKASI**

- DIN863-4 Standardına uygundur
- Hassasiyet 0,001mm
- Karbür ölçüm ağızları
- Cırcırlı
- Sıfırlama masterları dahildir (200-300mm hariç)

Kod	Ölçüm aralığı	Doğruluk	Sıfırlama masterı
3228-70*	50-70mm	5µm	Ø50mm (dahil)
3228-100*	70-100mm	5µm	Ø70mm (dahil)
3228-150*	100-150mm	6µm	Ø100mm (dahil)
3228-250*	150-250mm	8µm	Ø150mm (dahil)
3228-300*	200-300mm	9µm	Ø200mm (opsiyonel)

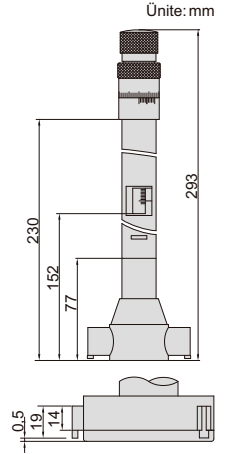
* Üretici kalibrasyon sertifikası ile tedarik edilir



sıfırlama masterı



3228-70



İÇ VİDA MİKROMETRESİ

- Çark çapı ölçülür
- Opsiyonel aksesuar: iç vida mikrometresi için ölçüm uçlar (kod **7321**), sıfırlama mastarı (kod **3226-SP**)

Kod	Ölçüm aralığı	Sıfırlama mastarı (opsiyonel)
3226-1001	75-100mm	100mm (kod 3226-SP100)
3226-1251	100-125mm	100mm (kod 3226-SP100)
3226-1501	125-150mm	150mm (kod 3226-SP150)
3226-1751	150-175mm	150mm (kod 3226-SP150)
3226-2001	175-200mm	200mm (kod 3226-SP200)
3226-2251	200-225mm	200mm (kod 3226-SP200)
3226-2501	225-250mm	250mm (kod 3226-SP250)
3226-2751	250-275mm	250mm (kod 3226-SP250)
3226-3001	275-300mm	300mm (kod 3226-SP300)

uçlar dahil
değildir



uçlar dahil
değildir

3226-1001

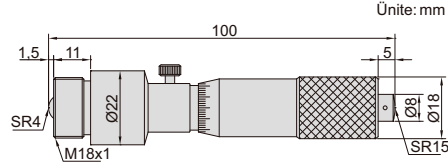
iç vida mikrometresi
için uçlar ölçülür



sıfırlama mastarı (opsiyonel)



İÇ ÇAP MİKROMETRE (BORU TİP)



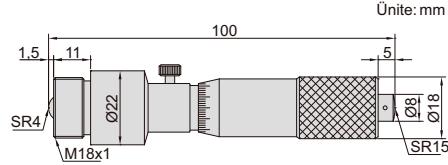
- Hassasiyet 0,01mm
- Doğruluk: $(3+n+L/50)\mu\text{m}$
n=ölçüm çubuğu sayısı
L: maksimum ölçüm uzunluğu (mm)
- Mikrometre kafası 25mm kadar ilerler
- Sıfırlama masterları ile tedarik edilir
- Karbür ölçüm ağızları

Kod	Ölçüm aralığı	Uzatma çubukları
3225-125	100-125mm	—
3225-500	100-500mm	25mm, 50mm, 100mm, 200mm
3225-900	100-900mm	25mm, 50mm, 100mm, 200mm, 400mm
3225-1300	100-1300mm	25mm, 50mm, 100mm, 200mm, 400mm (2 parça)
3225-1700	100-1700mm	25mm, 50mm, 100mm, 200mm, 400mm (3 parça)
3225-2100	100-2100mm	25mm, 50mm, 100mm, 200mm, 400mm (4 parça)



3225-500

İÇ ÇAP MİKROMETRE (BORU TİP)



- Hassasiyet 0,01mm
- Doğruluk: $(3+n+L/50)\mu\text{m}$
n=ölçüm çubuğu sayısı
L: maksimum ölçüm uzunluğu (mm)
- Mikrometre kafası 25mm kadar ilerler
- Sıfırlama masterları ile tedarik edilir
- Karbür ölçüm ağızları

Kod	Ölçüm aralığı	Uzatma çubukları
3225-125	100-125mm	—
3225-500	100-500mm	25mm, 50mm, 100mm, 200mm
3225-900	100-900mm	25mm, 50mm, 100mm, 200mm, 400mm
3225-1300	100-1300mm	25mm, 50mm, 100mm, 200mm, 400mm (2 parça)
3225-1700	100-1700mm	25mm, 50mm, 100mm, 200mm, 400mm (3 parça)
3225-2100	100-2100mm	25mm, 50mm, 100mm, 200mm, 400mm (4 parça)



3225-500

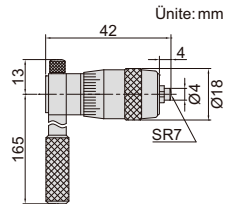
İÇ ÇAP MİKROMETRE (BORU TİP)

- Hassasiyet 0,01mm
- Doğruluk: $(3+n+L/50)\mu\text{m}$
L: maksimum ölçüm uzunluğu (mm)
- Opsiyonel aksesuar: sıfırlama mastarı (kod **6312**)



3221-200

Kod	Ölçüm aralığı	Mikrometre kafasını ilerletir	Uzatma çubukları
3221-32	25-32mm	7mm	—
3221-50	25-50mm	7mm	2 parça
3221-63	50-63mm	13mm	—
3221-200	50-200mm	13mm	6 parça
3221-300	50-300mm	13mm	10 parça
3221-225	200-225mm	25mm	—
3221-500	200-500mm	25mm	3 parça
3221-1000	200-1000mm	25mm	8 parça



DİJİTAL ÜÇ AYAKLI MİKROMETRE (GENİŞ ÖLÇÜM ARALIKLI)



IP54
TOZA/SUYAKARŞIKORUMALI

BİLGİ
ÇIKIŞI

- DIN863-4 Standardına uygundur
- Çözünürlük 0,001mm/0,00005"
- IP54 toza/suya karşı korumalı
- Tuşlar: aç/kapa; ayar; mm/inç; ABS/INC
- Bilgi çıkış
- LR44 pil; otomatik kapanma
- Karbür ölçüm ağızları
- Cırcırlı
- Uzatma çubukları ile tedarik edilir
- Sıfırlama mastarları dahildir (200-300mm hariç)
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-30A**, **7302-SPC6**, **7305-SPC3A**, **7305-B01**)



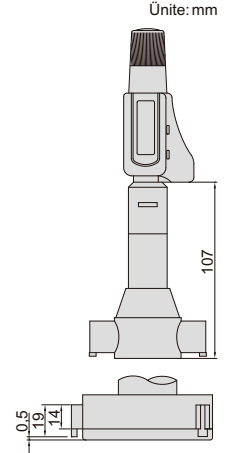
sıfırlama mastarı



uzatma çubuğu
(dahil)



3128-70

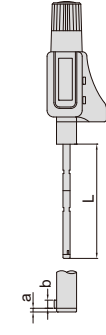


Kod	Ölçüm aralığı	Doğruluk	Sıfırlama mastarı	Uzatma çubuğu (dahil)
3128-70*	50-70mm/1,97-2,76"	5µm	Ø50mm (dahil)	150mm
3128-100*	70-100mm/2,76-3,94"	5µm	Ø70mm (dahil)	150mm
3128-150*	100-150mm/3,94-5,91"	6µm	Ø100mm (dahil)	150mm
3128-250*	150-250mm/5,91-9,84"	8µm	Ø150mm (dahil)	150mm
3128-300*	200-300mm/7,87-11,81"	9µm	Ø200mm (opsiyonel)	150mm

* Üretici kalibrasyon sertifikası ile tedarik edilir



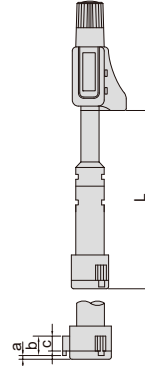
3127-12



Tip A
6-12mm,
çelik ölçme ucu



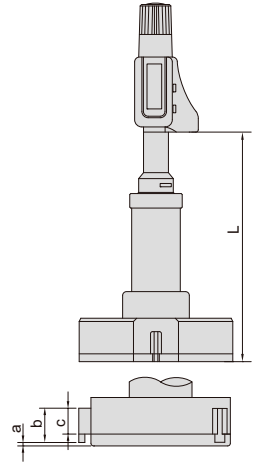
3127-40



Tip B
12-50mm,
karbür ölçme ucu



3127-125



Tip C
50-300mm,
karbür ölçme ucu

- DIN863-4 Standardına uygundur
- Hassasiyet: 0,001mm/0,00005"
(3127-275 hassasiyeti ve 3127-300; 0,001 mm/0,0001")
- IP54 toza/suya karşı korumalı
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC, bilgi çıkış
- Bilgi çıkış
- LR44 pil, otomatik kapanma
- Cırcırlı
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-30A, 7302-SPC6, 7305-SPC3A, 7305-B01), sıfırlama mastarı (kod 6312), mikrometre standı ve kelepçe (kod 6301 ve 6301-2)

sıfırlama mastarı



6-100mm: dahil,
100-300mm: opsiyonel

uzatma çubuğu



dahil

Bireysel

(mm)

Kod	Ölçüm aralığı	Tip	Doğruluk	Sıfırlama mastarı	Uzatma çubuğu (dahil)	L	a	b	c
3127-8 *	6-8mm/0,24-0,31"	A	4µm	Ø6mm (dahil)	100mm	54,5	1,5	2,5	—
3127-10 *	8-10mm/0,31-0,39"	A	4µm	Ø8mm (dahil)	100mm	54,5	1,5	2,5	—
3127-12 *	10-12mm/0,39-0,47"	A	4µm	Ø10mm (dahil)	100mm	54,5	1,5	2,5	—
3127-16 *	12-16mm/0,47-0,63"	B	4µm	Ø16mm (dahil)	150mm	80	0,5	6	4,5
3127-20 *	16-20mm/0,63-0,79"	B	4µm	Ø16mm (dahil)	150mm	80	0,5	6	4,5
3127-25 *	20-25mm/0,79-0,98"	B	4µm	Ø25mm (dahil)	150mm	90	0,5	8	6
3127-30 *	25-30mm/0,98-1,18"	B	4µm	Ø25mm (dahil)	150mm	90	0,5	8	6
3127-40 *	30-40mm/1,18-1,57"	B	4µm	Ø40mm (dahil)	150mm	97	0,5	14	12
3127-50 *	40-50mm/1,57-1,97"	B	5µm	Ø40mm (dahil)	150mm	97	0,5	14	12
3127-63 *	50-63mm/1,97-2,48"	C	5µm	Ø62mm (dahil)	150mm	114	0,5	17,5	14,5
3127-75 *	62-75mm/2,44-2,95"	C	5µm	Ø62mm (dahil)	150mm	114	0,5	17,5	14,5
3127-88 *	75-88mm/2,95-3,46"	C	5µm	Ø87mm (dahil)	150mm	114	0,5	17,5	14,5
3127-100 *	87-100mm/3,43-3,94"	C	5µm	Ø87mm (dahil)	150mm	114	0,5	17,5	14,5
3127-125 *	100-125mm/3,94-4,92"	C	5µm	opsiyonel	150mm	150	0,5	19,5	14,5
3127-150 *	125-150mm/4,92-5,91"	C	5µm	opsiyonel	150mm	150	0,5	19,5	14,5
3127-175 *	150-175mm/5,91-6,89"	C	5µm	opsiyonel	150mm	150	0,5	19,5	14,5
3127-200 *	175-200mm/6,89-7,87"	C	5µm	opsiyonel	150mm	150	0,5	19,5	14,5
3127-225 *	200-225mm/7,87-8,86"	C	7µm	opsiyonel	150mm	150	0,5	19,5	14,5
3127-250 *	225-250mm/8,86-9,84"	C	7µm	opsiyonel	150mm	150	0,5	19,5	14,5
3127-275 *	250-275mm/9,84-10,83"	C	7µm	opsiyonel	150mm	150	0,5	19,5	14,5
3127-300 *	275-300mm/10,83-11,81"	C	7µm	opsiyonel	150mm	150	0,5	19,5	14,5

Ayar

Kod	Ölçüm aralığı	Mikrometreler dahildir	Sıfırlama mastarı (dahil)	Uzatma çubuğu (dahil)
3127-123 *	6-12mm/0,24-0,47"	6-8mm, 8-10mm, 10-12mm	Ø6mm, Ø8mm, Ø10mm	100mm
3127-202 *	12-20mm/0,47-0,79"	12-16mm, 16-20mm	Ø16mm	150mm
3127-504 *	20-50mm/0,79-1,97"	20-25mm, 25-30mm, 30-40mm, 40-50mm	Ø25mm, Ø40mm	150mm
3127-1004 *	50-100mm/1,97-3,94"	50-63mm, 62-75mm, 75-88mm, 87-100mm	Ø62mm, Ø87mm	150mm

* Üretici kalibrasyon sertifikası ile tedarik edilir

kısaçaklı mikrometre standı
(opsiyonel)



3127-504



VIDEO

- Opsiyonel aksesuar:
dijital komparatör (kod **2103-10F**;
hassasiyet 0,001mm/0,00005"");
sıfırlama mastarı (kod **6312**)

sıfırlama mastarı

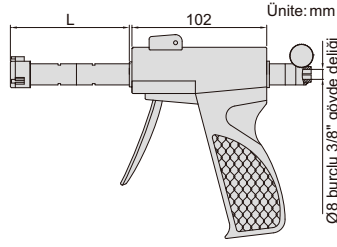


6-100mm: dahil,
100-300mm: opsiyonel

uzatma çubuğu



dahil



TUTMA KOLLU ÜÇ AYAKLI MİKROMETRE

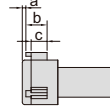


Tip A
6-12mm,
çelik ölçme ucu



dijital komparatör
saati dahil değildir

2124-8

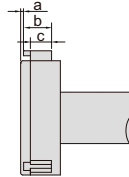


Tip B
12-50mm,
karbür ölçme ucu



dijital komparatör
saati dahil değildir

2124-25



Tip C
50-300mm,
karbür ölçme ucu



dijital komparatör
saati dahil değildir

2124-125

Bireysel

Kod	Ölçüm aralığı	Tip	Doğruluk (dijital komparatör olmadan)	Sıfırlama mastarı	Uzatma çubuğu (dahil)	L	a	b	c
2124-8 *	6-8mm	A	4µm	Ø6mm (dahil)	100mm	50	1,5	2,5	—
2124-10 *	8-10mm	A	4µm	Ø8mm (dahil)	100mm	50	1,5	2,5	—
2124-12 *	10-12mm	A	4µm	Ø10mm (dahil)	100mm	50	1,5	2,5	—
2124-16 *	12-16mm	B	4µm	Ø16mm (dahil)	150mm	65	0,5	6	4,5
2124-20 *	16-20mm	B	4µm	Ø16mm (dahil)	150mm	65	0,5	6	4,5
2124-25 *	20-25mm	B	4µm	Ø25mm (dahil)	150mm	91	0,5	8	6
2124-30 *	25-30mm	B	4µm	Ø25mm (dahil)	150mm	91	0,5	8	6
2124-40 *	30-40mm	B	4µm	Ø40mm (dahil)	150mm	97	0,5	14	12
2124-50 *	40-50mm	B	5µm	Ø40mm (dahil)	150mm	97	0,5	14	12
2124-63 *	50-63mm	C	5µm	Ø62mm (dahil)	150mm	112	0,5	17,5	14,5
2124-75 *	62-75mm	C	5µm	Ø62mm (dahil)	150mm	112	0,5	17,5	14,5
2124-88 *	75-88mm	C	5µm	Ø87mm (dahil)	150mm	112	0,5	17,5	14,5
2124-100 *	87-100mm	C	5µm	Ø87mm (dahil)	150mm	112	0,5	17,5	14,5
2124-125 *	100-125mm	C	5µm	opsiyonel	150mm	130	0,5	19,5	14,5
2124-150 *	125-150mm	C	5µm	opsiyonel	150mm	130	0,5	19,5	14,5
2124-175 *	150-175mm	C	5µm	opsiyonel	150mm	130	0,5	19,5	14,5
2124-200 *	175-200mm	C	5µm	opsiyonel	150mm	130	0,5	19,5	14,5
2124-225	200-225mm	C	7µm	opsiyonel	150mm	130	0,5	19,5	14,5
2124-250	225-250mm	C	7µm	opsiyonel	150mm	130	0,5	19,5	14,5
2124-275	250-275mm	C	7µm	opsiyonel	150mm	130	0,5	19,5	14,5
2124-300	275-300mm	C	7µm	opsiyonel	150mm	130	0,5	19,5	14,5

Ayar

Kod	Ölçüm aralığı	Problar dahildir	Sıfırlama mastarı (dahil)	Uzatma çubuğu (dahil)
2124-S123 *	6-12mm	6-8mm, 8-10mm, 10-12mm	Ø6mm, Ø8mm, Ø10mm	100mm
2124-S202 *	12-20mm	12-16mm, 16-20mm	Ø16mm	150mm
2124-S504 *	20-50mm	20-25mm, 25-30mm, 30-40mm, 40-50mm	Ø25mm, Ø40mm	150mm
2124-S1004 *	50-100mm	50-63mm, 62-75mm, 75-88mm, 87-100mm	Ø62mm, Ø87mm	150mm

* Üretici kalibrasyon sertifikası ile tedarik edilir



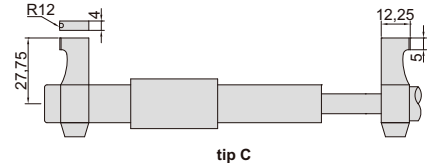
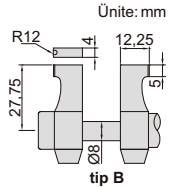
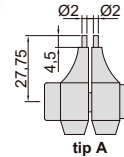
2124- S504

DİJİTAL İÇ ÇAP MİKROMETRESİ (EKONOMİK MODEL)

- Çözünürlük 0,001mm/0,00005"
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC
- Bilgi çıkış
- LR44 pil, otomatik kapanma
- Cırcırlı
- Karbür ölçüm ağızları
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-30A**, **7302-SPC6**, **7305-SPC3A**, **7305-B01**), sıfırlama mastarı (kod **6312**)



3520-30



Kod	Ölçüm aralığı	Tip	Sıfırlama mastarı	Doğruluk
3520-30	5-30mm/0,2-1,2"	A	5mm (dahil)	±5μm
3520-50	25-50mm/1-2"	B	25mm (dahil)	±6μm
3520-75	50-75mm/2-3"	B	50mm (opsiyonel)	±7μm
3520-100	75-100mm/3-4"	C	75mm (opsiyonel)	±8μm

-
- 50
- 2 9 25 2
- Ø9 Ø8 Ø18
- SR8 M12x1 SR8
- Unité: mm

Kod	Ölçüm aralığı	Mikrometre kafasını ilerletir	Uzatma çubukları
3222-63	50-63mm	13mm	—
3222-150	50-150mm	13mm	13mm, 25mm, 50mm
3222-300	50-300mm	13mm	13mm, 25mm, 50mm (2 parça), 100mm
3222-500	50-500mm	13mm	13mm, 25mm, 50mm (2 parça), 100mm, 200mm
3222-600	50-600mm	13mm	13mm, 25mm, 50mm, 100mm, 150mm, 200mm
3222-1000	50-1000mm	13mm	13mm, 25mm, 50mm (2 parça), 100mm, 200mm (2 parça), 300mm
3222-1500	50-1500mm	13mm	13mm, 25mm, 50mm (2 parça), 100mm, 200mm (3 parça), 300mm (2 parça)

İÇ ÇAP MİKROMETRE (EKONOMİK MODEL)

- Hassasiyet 0,01 mm
- Cırcırlı
- Karbür ölçüm ağızları
- Opsiyonel aksesuar: sıfırlama mastarı (kod **6312**), mikrometre standı ve kelepçe (kod **6301** ve **6301-2**)

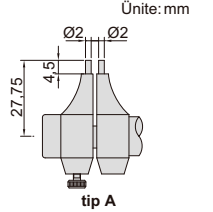
kıskaçlı mikrometre standı
(opsiyonel)



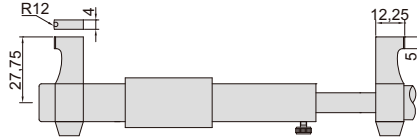
Kod	Ölçüm aralığı	Tip	Sıfırlama mastarı	Doğruluk
3220-30	5-30mm	A	5mm (dahil)	7µm
3220-50	25-50mm	B	25mm (dahil)	8µm
3220-75	50-75mm	B	50mm (opsiyonel)	9µm
3220-100	75-100mm	C	75mm (opsiyonel)	10µm



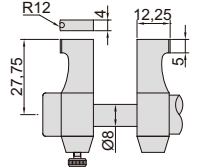
3220-50



tip A



tip C

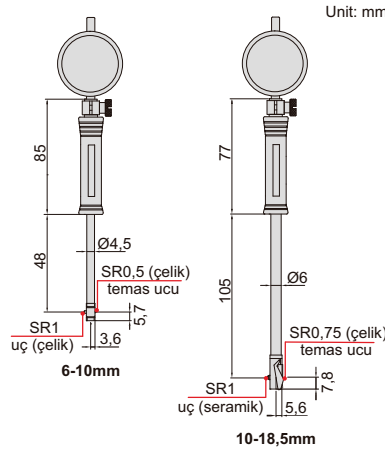
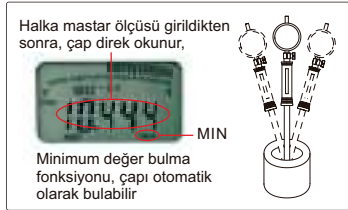
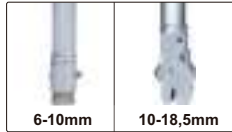


tip B

**DİKKAT: 0,001MM KOMPARATÖR
SAATLERİNE UYGUN DEĞİLDİR**

**BİLGİ
ÇIKIŞI**

SİLİNDİR KOMPARATÖR (KÜÇÜK DELİKLER İÇİN)



Unit: mm



2852-10



2152-18

- Opsiyonel aksesuar: sıfırlama mastarı (kod 6312)

Komparatör saati ile

Kod	Ölçüm aralığı	Komparatör	Doğruluk	Tekrarlanabilirlik
2852-10	6-10mm	saatli komparatör, aralık 3mm,	±0,012mm	0,003mm
2852-18	10-18,5mm	hassasiyet 0,01mm (kod 2311-3F)	±0,012mm	0,003mm

Dijital komparatör saati ile

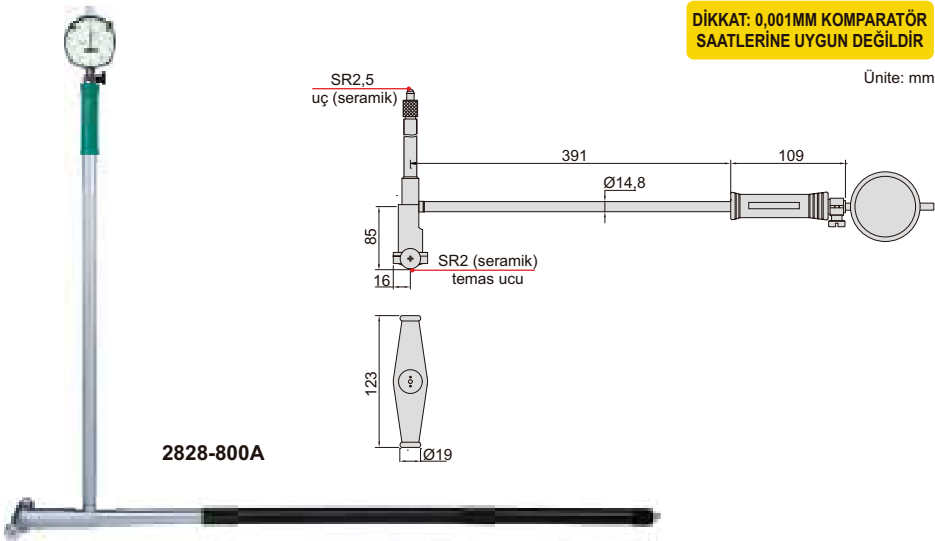
Kod	Ölçüm aralığı	Komparatör	Doğruluk	Tekrarlanabilirlik
2152-10	6-10mm	dijital komparatör, aralık 12,7mm/0,5",	±0,012mm	0,003mm
2152-18	10-18,5mm	hassasiyet 0,002mm/0,0001" (kod 2108-10F)	±0,012mm	0,003mm

SİLİNDİR KOMPARATÖRÜ

**DİKKAT: 0,001MM KOMPARATÖR
SAATLERİNE UYGUN DEĞİLDİR**

Ünite: mm

- Opsiyonel aksesuar:
uzun kol (kod **7351**)



2828-800A

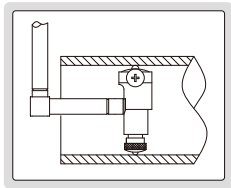
Kod	Ölçüm aralığı	Komparatör	Doğruluk	Tekrarlanabilirlik
2828-800A	400-800mm	saatli komparatör, kod 2308-10FA , aralık 10 mm, hassasiyet 0,01 mm	±0,025mm	0,003mm

SİLİNDİR KOMPARATÖRÜ

- Opsiyonel aksesuar: sıfırlama mastarı (kod **6312**), uzun kol (kod **7351**)

Ölçüm aralığı	ØA	B	C	ØD	E	L	L1
35-60mm	12,8	22	9	13	27	141	75
50-160mm	12,8	28,5	9,2	13	35	141	76,2
160-250mm	14,5	62,0	12,7	15	74,5	391	100
250-450mm	14,5	91,5	15,0	15	101,5	391	100

(mm)

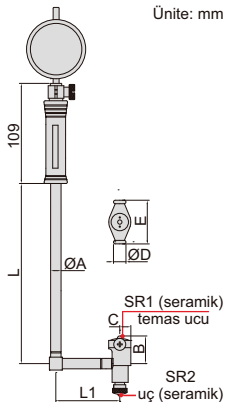


Kod	Ölçüm aralığı	Komparatör	Doğruluk	Tekrarlanabilirlik
2827-60A	35-60mm	saatli komparatör, kod 2308-10FA , aralık 10 mm, hassasiyet 0,01 mm	±0,018mm	0,003mm
2827-160A	50-160mm		±0,018mm	0,003mm
2827-250A	160-250mm		±0,018mm	0,003mm
2827-450A	250-450mm		±0,018mm	0,003mm



2827-160A

DİKKAT: 0,001MM KOMPARATÖR SAATLERİNE UYGUN DEĞİLDİR



SİLİNDİR KOMPARATÖR SETİ

paketleme (kod 2824-S3)



- Tekrarlanabilirlik: 0,003mm
- Opsiyonel aksesuar:
sıfırlama mastarı (kod 6312),
uzun kol (kod 7351)



2824-S160



2824-S3



DİKKAT: 0,001MM KOMPARATÖR
SAATLERİNE UYGUN DEĞİLDİR

Kod	Ölçüm aralığı	Komparatör	Silindir dahildir	Doğruluk
2824-S160	35-160mm	saatli komparatör, kod 2308-10FA, aralık 10mm, hassasiyet 0,01 mm	① 35mm-50mm (saatli komparatör ve kol dahil değildir) ② 50-160mm	35-50mm ±0,018mm 50-160mm ±0,018mm
2824-S3	18-160mm	saatli komparatör, kod 2308-10FA, aralık 10mm, hassasiyet 0,01 mm	① 18-35mm ② 35-60mm (komparatör saati dahil değildir) ③ 50-160mm (komparatör saati dahil değildir)	18-35mm ±0,015mm 35-60mm ±0,018mm 50-160mm ±0,018mm

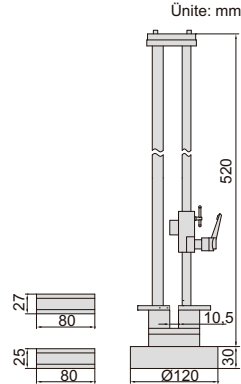


VIDEO

- Silindir komparatörü ayarlamak için çelik blok ile birlikte kullanılır

Kod	Sıfırlama aralığı
2395-400	18-400mm

2395-40



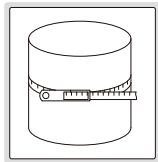
PİMETRE

DİKKAT:
BASİT MODEL

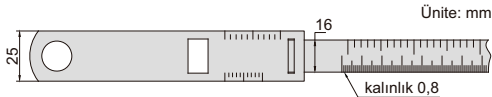
- Hassasiyet: 0,1mm
- Boru, ağaç, lastik vb, çap ve çevre ölçümü
- Lazer ile markalanmış skala
- Paslanmaz çelikten yapılmıştır



7114-950



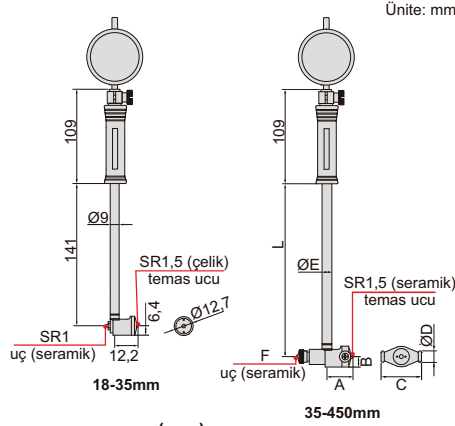
Kod	Pimetre aralığı	Çap aralığı	Doğruluk	
			Pimetre	Çap
7114-950	150-950mm	Ø50-300mm	±1,5mm	±0,5mm
7114-2200	940-2200mm	Ø300-700mm	±1,5mm	±0,5mm
7114-3460	2190-3460mm	Ø700-1100mm	±1,5mm	±0,5mm



SİLİNDİR KOMPARATÖRÜ

DİKKAT: 0,001MM KOMPARATÖR SAATLERİNE UYGUN DEĞİLDİR

- Opsiyonel aksesuar: sıfırlama mastarı (kod **6312**), uzun kol (kod **7351**)



Ölçüm aralığı	A	B	C	ØD	ØE	F	L
35-60mm	22	9	27	13	12,8	SR2	141
50-100mm	26	9	35	13	12,8	SR2	141
50-160mm	26	9	35	13	12,8	SR2	141
100-160mm	26	9	35	13	12,8	SR2	141
160-250mm	56,5	13	74,5	15	12,8	SR2	241
250-450mm	86,5	15	101,5	15	14,5	SR2,5	241

Komparatör saati ile

Kod	Ölçüm aralığı	Komparatör	Doğruluk	Tekrarlanabilirlik
2322-35A	18-35mm	saatli komparatör; aralık 10mm; hassasiyet 0,01mm (kod 2308-10FA)	±0,015mm	0,003mm
2322-60A	35-60mm		±0,018mm	0,003mm
2322-100A	50-100mm		±0,018mm	0,003mm
2322-160A	50-160mm		±0,018mm	0,003mm
2322-161A	100-160mm		±0,018mm	0,003mm
2322-250A	160-250mm		±0,018mm	0,003mm
2322-450A	250-450mm		±0,018mm	0,003mm

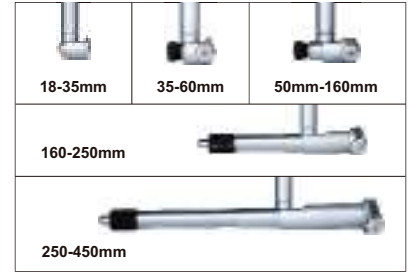
Dijital komparatör saati ile

Kod	Ölçüm aralığı	Komparatör	Doğruluk	Tekrarlanabilirlik
2122-35A	18-35mm	dijital komparatör, aralık 12,7mm/0,5"; hassasiyet 0,002mm/0,0001" (kod 2108-10F)	±0,015mm	0,003mm
2122-60A	35-60mm		±0,018mm	0,003mm
2122-100A	50-100mm		±0,018mm	0,003mm
2122-160A	50-160mm		±0,018mm	0,003mm
2122-161A	100-160mm		±0,018mm	0,003mm
2122-250A	160-250mm		±0,018mm	0,003mm
2122-450A	250-450mm		±0,018mm	0,003mm



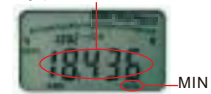
2322-160A

2122-35A

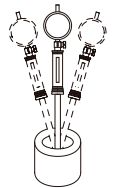


250-450mm

Halka master ölçüsü girildikten sonra, çap direkt okunur,



Minimum değer bulma fonksiyonu, çapı otomatik olarak bulabilir



BİLGİ ÇIKIŞI

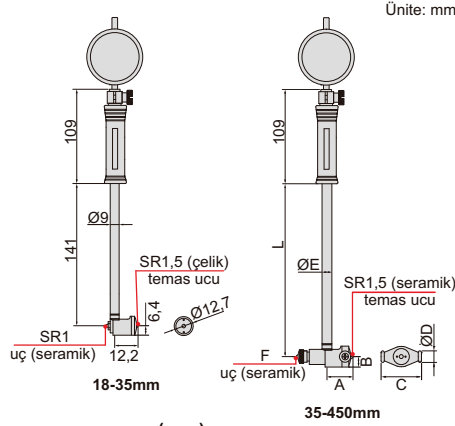


VIDEO

SİLİNDİR KOMPARATÖRÜ

DİKKAT: 0,001MM KOMPARATÖR SAATLERİNE UYGUN DEĞİLDİR

- Opsiyonel aksesuar: sıfırlama mastarı (kod **6312**), uzun kol (kod **7351**)



Ölçüm aralığı	A	B	C	ØD	ØE	F	L
35-60mm	22	9	27	13	12,8	SR2	141
50-100mm	26	9	35	13	12,8	SR2	141
50-160mm	26	9	35	13	12,8	SR2	141
100-160mm	26	9	35	13	12,8	SR2	141
160-250mm	56,5	13	74,5	15	12,8	SR2	241
250-450mm	86,5	15	101,5	15	14,5	SR2,5	241

Komparatör saati ile

Kod	Ölçüm aralığı	Komparatör	Doğruluk	Tekrarlanabilirlik
2322-35A	18-35mm	saatli komparatör; aralık 10mm; hassasiyet 0,01mm (kod 2308-10FA)	±0,015mm	0,003mm
2322-60A	35-60mm		±0,018mm	0,003mm
2322-100A	50-100mm		±0,018mm	0,003mm
2322-160A	50-160mm		±0,018mm	0,003mm
2322-161A	100-160mm		±0,018mm	0,003mm
2322-250A	160-250mm		±0,018mm	0,003mm
2322-450A	250-450mm		±0,018mm	0,003mm

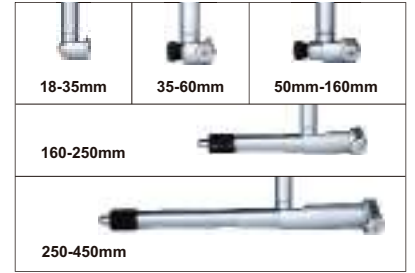
Dijital komparatör saati ile

Kod	Ölçüm aralığı	Komparatör	Doğruluk	Tekrarlanabilirlik
2122-35A	18-35mm	dijital komparatör, aralık 12,7mm/0,5"; hassasiyet 0,002mm/0,0001" (kod 2108-10F)	±0,015mm	0,003mm
2122-60A	35-60mm		±0,018mm	0,003mm
2122-100A	50-100mm		±0,018mm	0,003mm
2122-160A	50-160mm		±0,018mm	0,003mm
2122-161A	100-160mm		±0,018mm	0,003mm
2122-250A	160-250mm		±0,018mm	0,003mm
2122-450A	250-450mm		±0,018mm	0,003mm



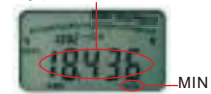
2322-160A

2122-35A

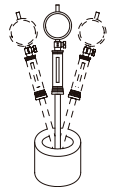


250-450mm

Halka master ölçüsü girildikten sonra, çap direkt okunur,



Minimum değer bulma fonksiyonu, çapı otomatik olarak bulabilir



BİLGİ ÇIKIŞI



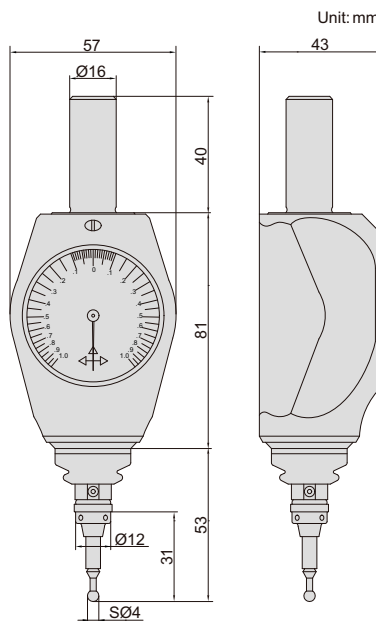
VIDEO

WHEN USING STANDARD PROBE, READING SHOWS MOVEMENT VALUE OF PROBE.
WHEN USING EXTENDED PROBE, READING DOES NOT SHOW MOVEMENT VALUE OF PROBE

3D TESTER
INSIZE PLUS

IP54
WATERPROOF

SHOCK
PROOF



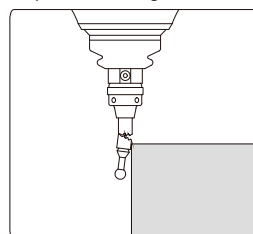
2840-3D

- Shockproof, IP67 dust/waterproof
- Mainly used for milling machines and CNC machine tools
 - determine coordinate point on workpieces
 - find center of holes
 - adjust and position workpieces
- Can be used to measure length and depth
- When using standard probe, reading shows movement value of probe, for example, if probe moves 0.05mm, reading changes 0.05mm(5 graduations). When using extended probe, reading does not show movement value of probe
- Large working range on three axes (X, Y, Z), which avoids damage of probes due to collision by mistake

Code	Range	Graduation	Repeatability at zero (one direction)	X, Y, Z range
2840-3D	±1.0mm	0.01mm	±0.01mm	6mm



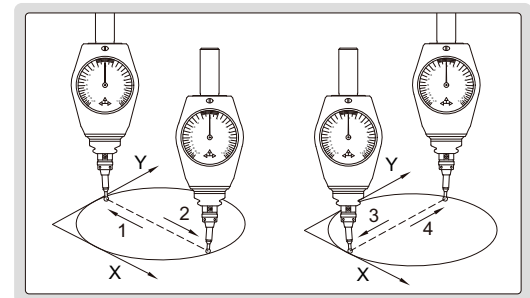
If the probe is pressed too much, the probe breaks at the breaking point, in order to prevent damage of the main body



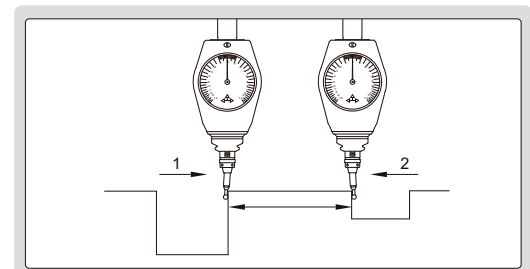
Probe (optional)

Code	Description	L	D
2840-N1	standard probe	31mm	SØ4mm
2840-N2	extended probe	56.6mm	SØ6mm

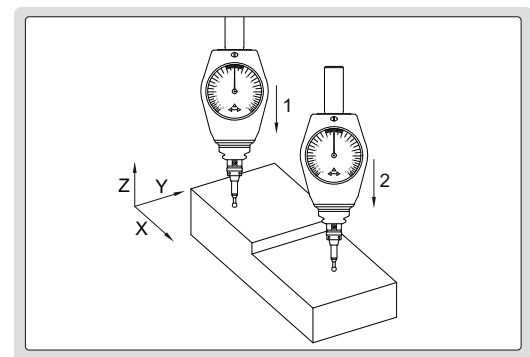
find center of holes



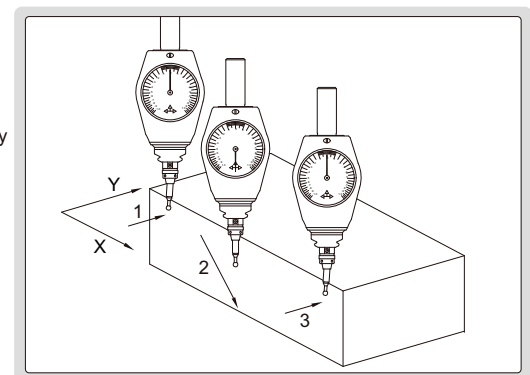
length measurement



depth measurement



position workpieces



DIGITAL 3D TESTER

INSIZE PLUS

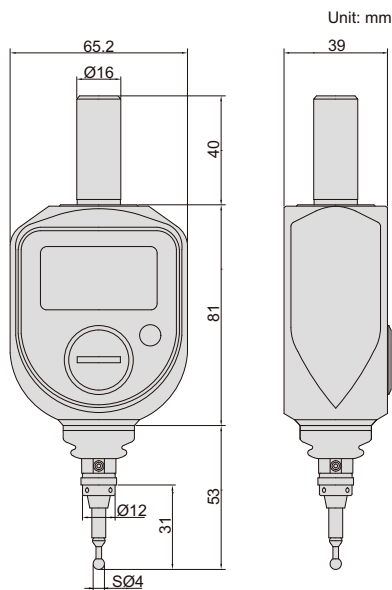
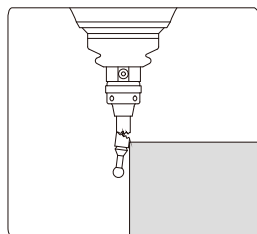
IP54
WATERPROOF

SHOCK
PROOF



2846-3D

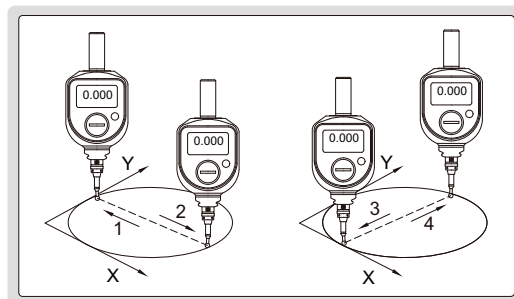
If the probe is pressed too much, the probe breaks at the breaking point, in order to prevent damage of the main body



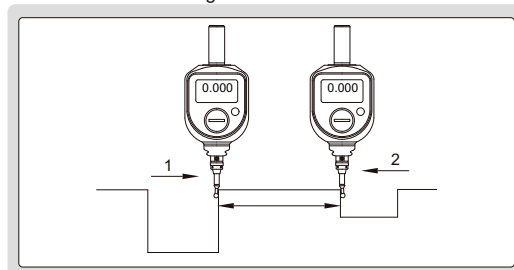
- Shockproof, IP67 dust/waterproof
- Mainly used for milling machines and CNC machine tools
 - determine coordinate point on workpieces
 - find center of holes
 - adjust and position workpieces
- Can be used to measure length and depth
- Reading shows movement value of probe.
for example, if probe moves 0.01mm, reading changes 0.01mm
- Large working range on three axes (X, Y, Z), which avoids damage of probes due to collision by mistake
- Optional accessory: probe (code **2840-N1**)

Code	Range	Resolution	Repeatability at zero (one direction)	X, Y, Z range
2846-3D	±2mm	0.005mm	±0.005mm	6mm

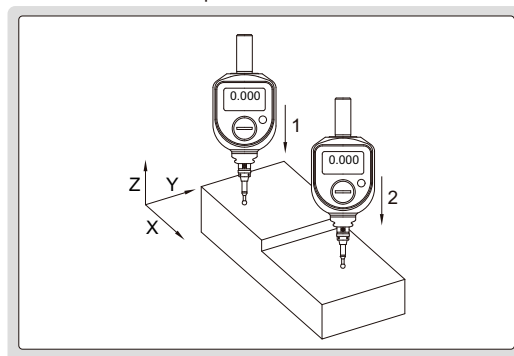
find center of holes



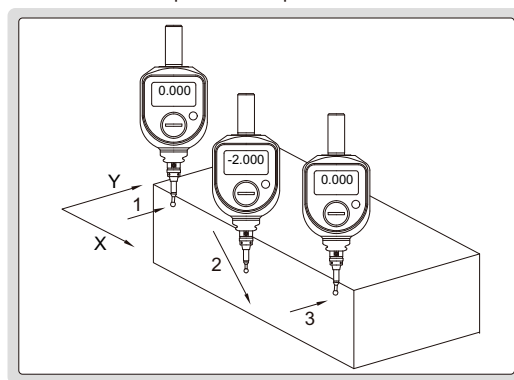
length measurement



depth measurement



position workpieces

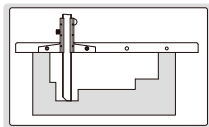
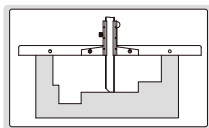


EXTENSION BASES

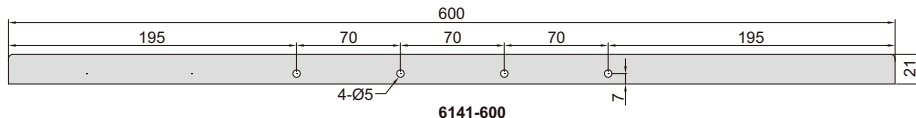
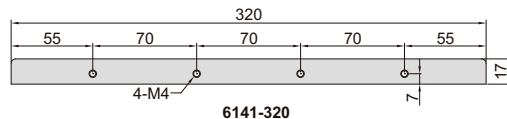
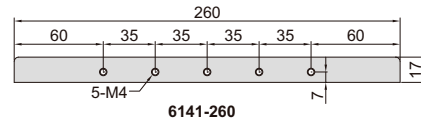
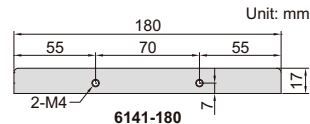


6141-260

- Supplied with two screws
- Made of stainless steel
- Suitable for depth gages series **1147, 1148, 1243, 1247, 1248** and **1249**

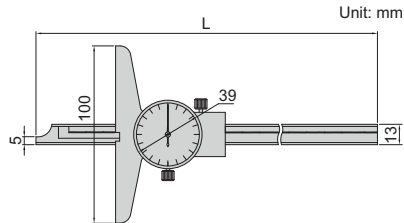


Code	Length
6141-180	180mm
6141-260	260mm
6141-320	320mm
6141-600	600mm



**SHOCK
PROOF**

- Shockproof dial indicator
- Made of stainless steel



Code	Range	Graduation	Accuracy	L
1340-150	0-150mm	0.02mm	±0.03mm	232mm
1340-200	0-200mm	0.02mm	±0.03mm	282mm
1340-300	0-300mm	0.02mm	±0.04mm	382mm

DIAL DEPTH GAGES



1340-150

ATTENTION:
NO DATA OUTPUT

ATTENTION: THE WORKING LIFE
OF A BATTERY IS ABOUT 4-6 MONTHS

IP67 WATERPROOF DIGITAL DEPTH GAGES

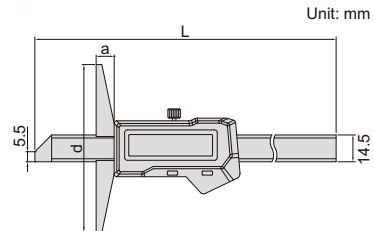
IP67
WATERPROOF

- IP67 dust/waterproof
- Resolution: 0.01mm/0.0005"
- Large display
- Button function: zero, on/off, mm/inch
- Battery CR2032, automatic power off
- Meet DIN862
- Made of stainless steel



1541-150

Code	Range	Accuracy	L	a	d
1541-150	0-150mm/0-6"	±0.03mm	232.5mm	11mm	100mm
1541-200	0-200mm/0-8"	±0.03mm	285mm	11mm	100mm
1541-300	0-300mm/0-12"	±0.03mm	390mm	13.5mm	150mm



IP65
SU GEÇİRMEZ

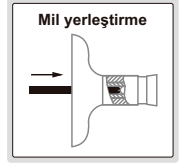
BİLGİ
ÇIKIŞI

DİJİTAL DERİNLİK MİKROMETRESİ

- Hassasiyet: 0,001mm/0,00005"
- Mikrometre kafası doğruluk: $\pm 3\mu\text{m}$
- Mil doğruluk: $\pm (2+L/75)\mu\text{m}$, L mm olarak ölçüm aralığıdır
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC, bilgi çıkış
- IP54 toza/suya karşı koruma
- Bilgi çıkışı
- LR44 pil, otomatik kapatma
- Düz uçlu mil
- Cırcırlı
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-30A, 7302-SPC6, 7305-SPC3A, 7305-B01)

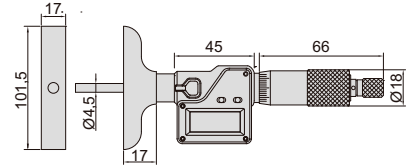


3540-50



Ünite: mm

Kod	Ölçüm aralığı	Miller
3540-50	0-50mm/0-2"	2 parça
3540-150	0-150mm/0-6"	6 parça
3540-300	0-300mm/0-12"	12 parça



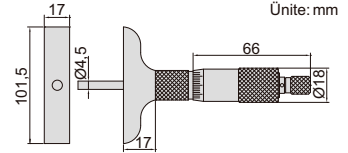
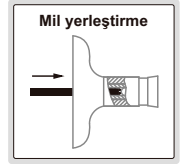
DERİNLİK MİKROMETRESİ

- DIN863-2 Standardına uygundur
- Hassasiyet: 0,01mm
- Mikrometre kafası doğruluk: $\pm 3\mu\text{m}$
- Mil doğruluk: $\pm (2+L/75)\mu\text{m}$,
L mm olarak ölçüm aralığıdır
- Düz uçlu mil
- Cırcırlı

Kod	Ölçüm aralığı	Miller
3240-25	0-25mm	1 parça
3240-50	0-50mm	2 parça
3240-75	0-75mm	3 parça
3240-100	0-100mm	4 parça
3240-150	0-150mm	6 parça
3240-200	0-200mm	8 parça
3240-300	0-300mm	12 parça



3240-100



SAATLİ DERİNLİK KOMPARATÖRÜ

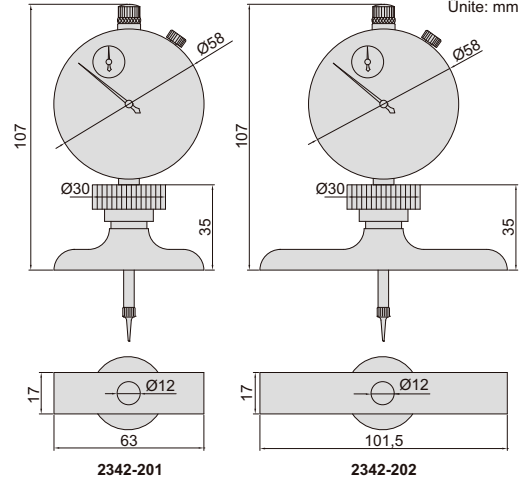


2342-202

- Saat hassasiyeti: 0,01mm
- Doğruluk: $\pm 0,03\text{mm}$
- Paslanmaz çelik taban
- Uzatma çubukları: 25mm (1 adet), 50mm (1 adet), 75mm (1 adet), 100mm (2 adet)
- Sivri uç ve küre uç ile tedarik edilir

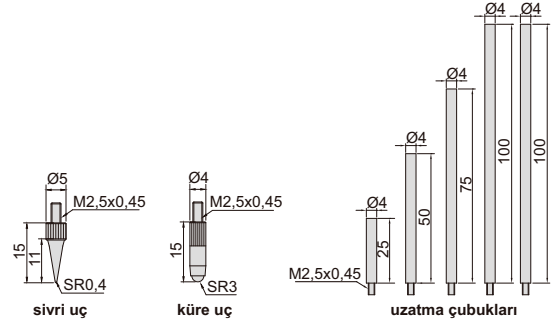


Kod	Ölçüm aralığı	Saat hareketi	Taban
2342-201	0-300mm	30mm	63x17mm
2342-202	0-300mm	30mm	101,5x17mm



2342-201

2342-202



sivri uç

küre uç

uzatma çubukları

HASSAS AYARLI MEKANİK DERİNLİK KUMPASI

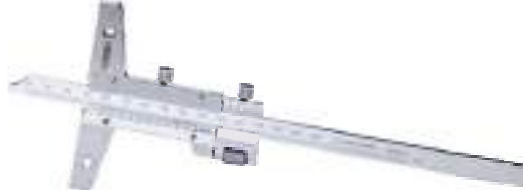
TABAN GENİŞLETME İÇİN
DELİKLİ MONTE EDİLİR

taban uzatma (opsiyonel)

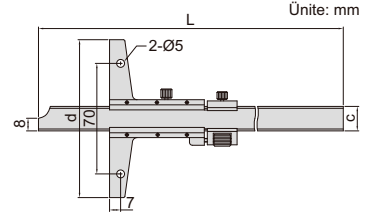


6141 series

- Hasas ayarlı
- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplama okuma yüzeyi
- Opsiyonel aksesuar: taban uzatma (kod 6141)



1249-1501



Hassasiyet 0,05mm

Kod	Ölçüm aralığı	Doğruluk
1249-150	0-150mm	$\pm 0,05\text{mm}$
1249-200	0-200mm	$\pm 0,05\text{mm}$
1249-300	0-300mm	$\pm 0,08\text{mm}$

Hassasiyet 0,02mm

Kod	Ölçüm aralığı	Doğruluk
1249-1501	0-150mm	$\pm 0,03\text{mm}$
1249-2001	0-200mm	$\pm 0,03\text{mm}$
1249-3001	0-300mm	$\pm 0,04\text{mm}$

(mm)

Ölçüm aralığı	L	c	d
0-150mm	256	16	100
0-200mm	306	16	100
0-300mm	406	16	100

TABAN GENİŞLETME İÇİN
DELİKLİ MONTE EDİLİR

MEKANİK KANCALI DERİNLİK KUMPASI

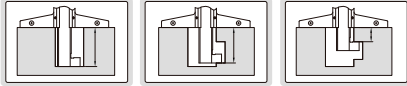
- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplama okuma yüzeyi
- Opsiyonel aksesuar: taban uzatma (kod 6141)



1248-1501

taban uzatma (opsiyonel)

6141 seri

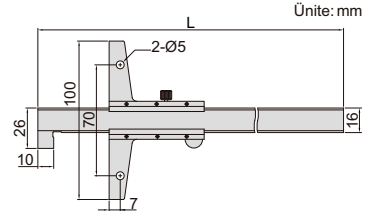


Hassasiyet 0,05mm

Kod	Ölçüm aralığı	Doğruluk	L
1248-150	0-150mm	±0,05mm	266mm
1248-200	0-200mm	±0,05mm	316mm
1248-300	0-300mm	±0,08mm	416mm

Hassasiyet 0,02mm

Kod	Ölçüm aralığı	Doğruluk	L
1248-1501	0-150mm	±0,03mm	266mm
1248-2001	0-200mm	±0,03mm	316mm
1248-3001	0-300mm	±0,04mm	416mm



MEKANİK DERİNLİK KUMPASI

TABAN GENİŞLETME İÇİN
DELİKLİ MONTE EDİLİR

taban uzatma (opsiyonel)

6141 seri



1247-1501

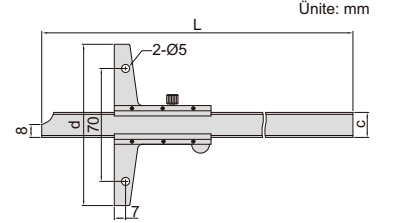
- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplama okuma yüzeyi
- Opsiyonel aksesuar: taban uzatma (kod 6141)

Hassasiyet 0,05mm

Kod	Ölçüm aralığı	Doğruluk
1247-150	0-150mm	$\pm 0,05\text{mm}$
1247-200	0-200mm	$\pm 0,05\text{mm}$
1247-300	0-300mm	$\pm 0,08\text{mm}$
1247-600	0-600mm	$\pm 0,10\text{mm}$
1247-1000	0-1000mm	$\pm 0,15\text{mm}$

Hassasiyet 0,02mm

Kod	Ölçüm aralığı	Doğruluk
1247-1501	0-150mm	$\pm 0,03\text{mm}$
1247-2001	0-200mm	$\pm 0,03\text{mm}$
1247-3001	0-300mm	$\pm 0,04\text{mm}$
1247-6001	0-600mm	$\pm 0,05\text{mm}$
1247-1001	0-1000mm	$\pm 0,07\text{mm}$



(mm)

Ölçüm aralığı	L	c	d
0-150mm	240	11	100
0-200mm	290	11	100
0-300mm	390	11	100
0-600mm	704	16	150
0-1000mm	1124	16	200

MEKANİK DERİNLİK KUMPASI

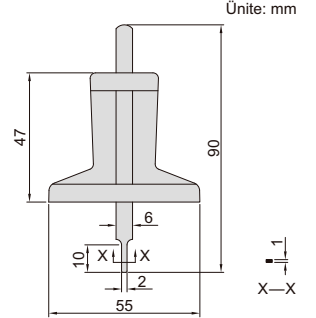
- Hassasiyet: 0,1mm
- Paslanmaz çelikten yapılmıştır

Kod	Ölçüm aralığı	Doğruluk
1244-30	0-30mm	$\pm 0,10\text{mm}$

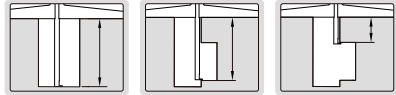


1244-30

DİKKAT:
EKONOMİK MODEL



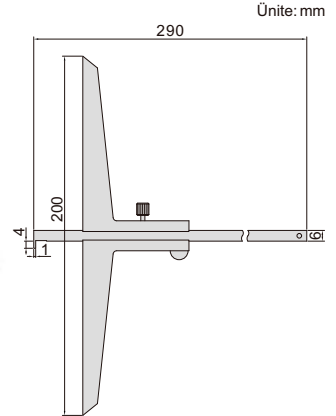
KANCALI MEKANİK DERİNLİK KUMPASI



- Hassasiyet: 0,02mm
- Paslanmaz çelikten imal edilmiştir,
- Parlak krom kaplama okuma yüzeyi



1243-2001



Kod	Ölçüm aralığı	Doğruluk
1243-2001	0-200mm	$\pm 0,03\text{mm}$

BORU İÇİNDEKİ KANALLARIN
GENİŞLİK VE DERİNLİĞİ ÖLÇÜLÜR

BİLGİ
ÇIKIŞI

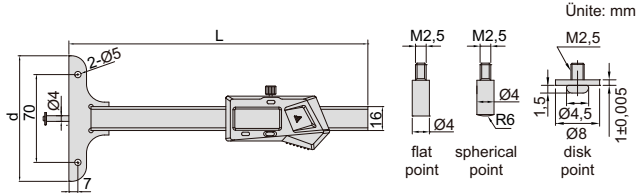


VIDEO

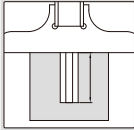
DİJİTAL DERİNLİK KUMPASI (YUVARLAK ÇUBUKLU)

KÜÇÜK DELİKLERİN
(>Ø4MM) DERİNLİK ÖLÇÜMÜ

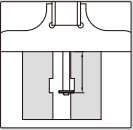
- Hassasiyet: 0,01mm/0,0005"
- Üç adet değiştirilebilir uç ile tedarik edilir (düz, küresel, disk)
- Tuşlar: aç/kapa, ayar, sıfırla, mm/inç, ön ayar (+, -)
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum PİL, bilgi Çıkış
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**), disk uçlar (aşağıdaki tabloya bakınız), taban uzatma (kod **6141**, **1148-120**, **1148-200** ve **1148-300** için)



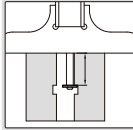
küçük deliklerin
(>Ø4mm)
derinlik ölçümü



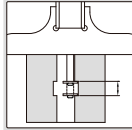
oyuk içi
kanalların
derinlik ölçümü



oyuk içi
kanalların
derinlik ölçümü



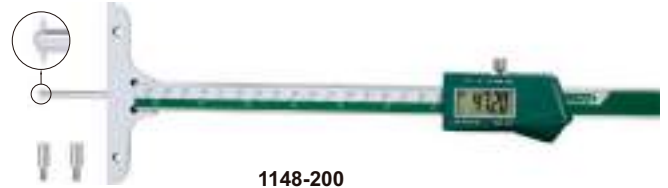
oyuk içi
kanalların
genişlik ölçümü



1148-100S



1148-120



1148-200

tek el kullanımı, 1148-120



taban uzatma (kod **6141**, **1148-120**,
1148-200 ve **1148-300** için)



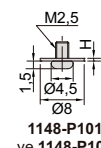
6141 seri

Kod	Ölçüm aralığı *	Doğruluk	L	d	Not
1148-100S	0-100mm/0-4"	±0,02mm	200mm	45mm	
1148-100	0-100mm/0-4"	±0,02mm	200mm	85mm	
1148-120	0-120mm/0-4,7"	±0,03mm	300mm	101mm	tek el kullanım, taban uzatma için delikler açılır
1148-200	0-200mm/0-8"	±0,03mm	300mm	101mm	taban uzatma için delikler açılır
1148-300	0-300mm/0-12"	±0,03mm	400mm	101mm	taban uzatma için delikler açılır

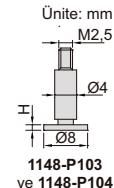
* disk uçları kullanıldığında, aralık 10mm kadar azalır

OPSİYONEL DİSK UÇLARI

Kod	Açıklama	H	Not
1148-P101	0,5mm disk uçları	0,5±0,005mm	dar kanallar için
1148-P102	0,7mm disk uçları	0,7±0,005mm	dar kanallar için
1148-P103	1mm disk uçları	1±0,005mm	kör delik içi dar kanallar için
1148-P104	0,5mm disk uçları	0,5±0,005mm	kör delik içi dar kanallar için



1148-P101
ve 1148-P102

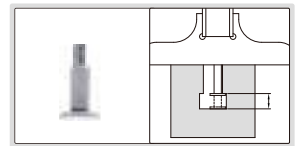


1148-P103
ve 1148-P104

1148-P101
(opsiyonel)



1148-P103 (opsiyonel), kör
delik içi kanalların genişliği ölçülür



DİJİTAL DERİNLİK KUMPASI (TABAN GENİŞLETME İÇİN DELİKLİ)

BİLGİ
ÇIKIŞI

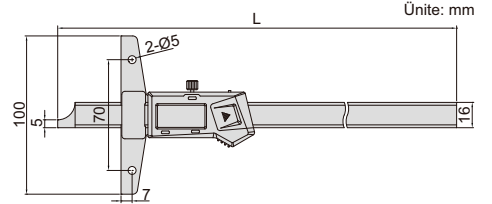
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- DIN862 Standardına uygundur
- CR2032 Lityum Pil
- Bilgi Çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**), taban uzatma (kod **6141**)



1147-300

taban uzatma (opsiyonel)

6141 seri



Kod	Ölçüm aralığı	Doğruluk	L
1147-150	0-150mm/0-6"	±0,03mm	237mm
1147-200	0-200mm/0-8"	±0,03mm	287mm
1147-300	0-300mm/0-12"	±0,03mm	403mm

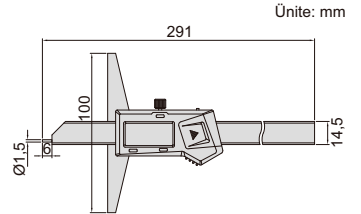
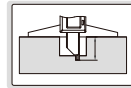
DİJİTAL İĞNE UÇLU DERİNLİK KUMPASI

BİLGİ
ÇIKIŞI

- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- DIN862 Standardına uygundur
- CR2032 Lityum Pil
- Bilgi çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)



1143-200A



Kod	Ölçüm aralığı	Doğruluk
1143-200A	0-200mm/0-8"	±0,03mm

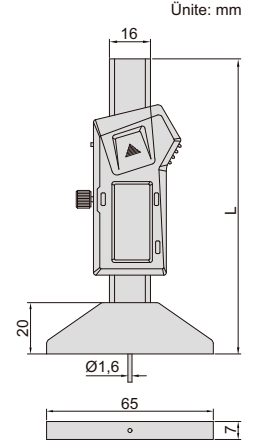
YUVARLAK DERİNLİK ÇUBUKLU MİNİ DİJİTAL DERİNLİK KUMPASI

BİLGİ
ÇIKIŞI

- Ufak delik ve olukların derinliğini ölçme
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, ayar, mm/inç, önayar (+,-)
- Otomatik kapanma ve dijital üniteyi hareket ettirerek açma
- CR2032 Lityum Pil
- Bilgi çıkışı
- Paslanmaz çelikten imal edilmiştir
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)



1140-25



Kod	Ölçüm aralığı	Doğruluk	L
1140-25	0-25mm/0-1"	±0,02mm	114mm
1140-50	0-50mm/0-2"	±0,02mm	140mm

DERİNLİK MİKROMETRESİ

- DIN863-2 Standardına uygundur
- Hassasiyet: 0,01mm
- Mikrometre kafası doğruluk: $\pm 3\mu\text{m}$
- Mil doğruluk: $\pm (2+L/75)\mu\text{m}$,
L mm olarak ölçüm aralığıdır
- Düz uçlu mil
- Cırcırlı

Taban: HxW=101,5x17mm

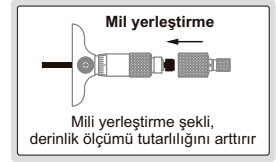
Kod	Ölçüm aralığı	Miller
3241-25	0-25mm	1 parça
3241-50	0-50mm	2 parça
3241-75	0-75mm	3 parça
3241-100	0-100mm	4 parça
3241-150	0-150mm	6 parça
3241-200	0-200mm	8 parça
3241-300	0-300mm	12 parça



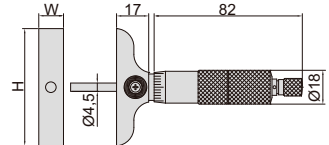
3241-100

Taban: HxW=63x17mm

Kod	Ölçüm aralığı	Miller
3241-B25	0-25mm	1 parça



Ünite: mm



DİJİTAL DERİNLİK KOMPARATÖRÜ

BİLGİ
ÇIKIŞI

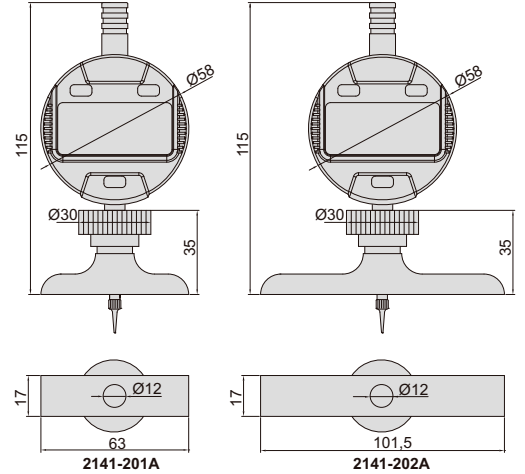


2141-202A

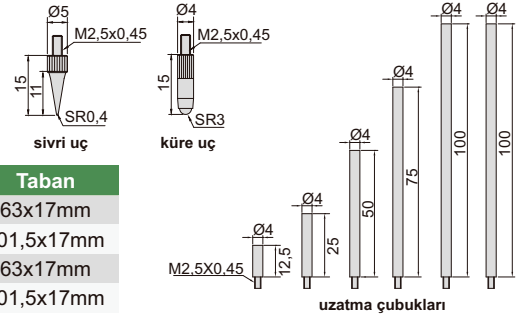
- Tuşlar: aç/kapa, sıfırla, mm/inç, ABS, veri ön ayar, ölçüm yönü değiştirme
- CR2032 Lityum pil, otomatik kapatma
- Bilgi çıkışı
- Paslanmaz çelik taban
- Uzatma çubukları: 12,5mm (1 adet), 25mm (1 adet), 50mm (1 adet), 75mm (1 adet), 100mm (2 adet)
- Sivri uç ve küre uç ile tedarik edilir
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-40, 7302-SPC3A, 7305-SPC1A, 7305-C01)



VIDEO



Ünite: mm



Kod	Ölçüm aralığı	Saat hareketi	Saat hassasiyeti	Doğruluk	Taban
2141-201A	0-300mm/0-12"	12,7mm/0,5"	0,01mm/0,0005"	±20µm	63x17mm
2141-202A	0-300mm/0-12"	12,7mm/0,5"	0,01mm/0,0005"	±20µm	101,5x17mm
2141-301	0-300mm/0-12"	12,7mm/0,5"	0,001mm/0,00005"	±5µm	63x17mm
2141-302	0-300mm/0-12"	12,7mm/0,5"	0,001mm/0,00005"	±5µm	101,5x17mm

MEKANİK DERİNLİK KUMPASI (STANDART MODEL)

- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplama okuma yüzeyi

Hassasiyet 0,05mm (mm)

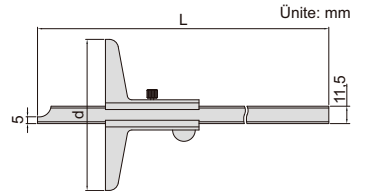
Kod	Ölçüm aralığı	Doğruluk	L	d
1240-150	0-150mm	$\pm 0,05\text{mm}$	245	100
1240-200	0-200mm	$\pm 0,05\text{mm}$	282	100
1240-300	0-300mm	$\pm 0,08\text{mm}$	382	100
1240-500	0-500mm	$\pm 0,09\text{mm}$	585	150

Hassasiyet 0,02mm (mm)

Kod	Ölçüm aralığı	Doğruluk	L	d
1240-1501	0-150mm	$\pm 0,03\text{mm}$	245	100
1240-2001	0-200mm	$\pm 0,03\text{mm}$	282	100
1240-3001	0-300mm	$\pm 0,04\text{mm}$	382	100
1240-5001	0-500mm	$\pm 0,05\text{mm}$	585	150



1240-2001



MINİ DİJİTAL DERİNLİK KUMPASI

BİLGİ
ÇIKIŞI

- Küçük delik ve kanal derinlik ölçümü ve lastik dış derinlik ölçümü yapılır
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Sıfırlama mastarıyla tedarik edilir
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil
- Bilgi Çıkış
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)

sıfırlama



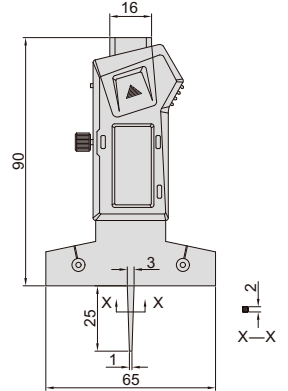
sıfırlama
mastarı (dahil)

ölçüm



1145-25A

Ünite: mm



Kod	Ölçüm aralığı	Doğruluk
1145-25A	0-25mm/0-1"	±0,03mm

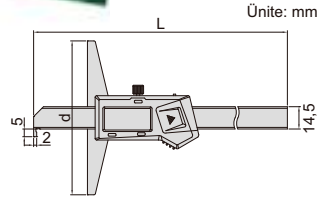
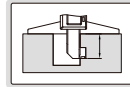
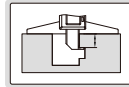
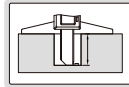
DİJİTAL KANCALI DERİNLİK KUMPASI

- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- DIN862 Standardına uygundur
- CR2032 Lityum Pil, bilgi çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)

Kod	Ölçüm aralığı	Doğruluk	L	d
1142-150A	0-150mm/0-6"	±0,03mm	230mm	100mm
1142-200A	0-200mm/0-8"	±0,03mm	280mm	100mm
1142-300A	0-300mm/0-12"	±0,04mm	380mm	150mm



1142-150A



BİLGİ
ÇIKIŞI

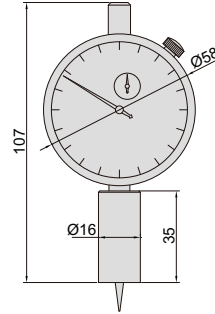
SAATLİ DERİNLİK KOMPARATÖRÜ

- Doğruluk: $\pm 0,017\text{mm}$
- Paslanmaz çelik taban
- Sivri uç

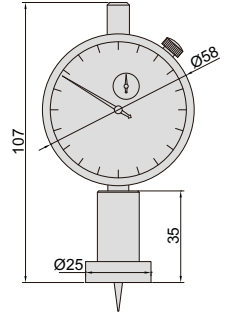
Kod	Ölçüm aralığı	Saat hareketi	Saat hassasiyeti	Taban
2343-101	0-10mm	10mm	0,01mm	Ø16mm
2343-102	0-10mm	10mm	0,01mm	Ø25mm



2343-102



2343-101

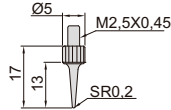


2343-102

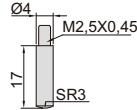
Ünite: mm

SAATLİ DERİNLİK KOMPARATÖRÜ

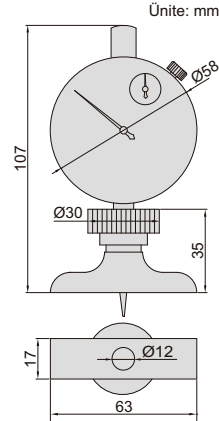
- Doğruluk: $\pm 0,017\text{mm}$
- Paslanmaz çelik taban
- Sivri uç ve küre uç ile tedarik edilir



sivri uç



küre uç

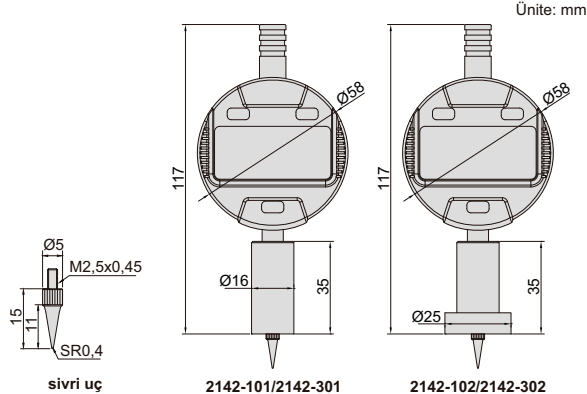


2341-101A

Kod	Ölçüm aralığı	Saat hassasiyeti	Saat hareketi
2341-101A	0-10mm	10mm	0,01mm

DİJİTAL DERİNLİK KOMPARATÖRÜ

- Digital indicator stroke: 12,7mm/0,5"
- Tuşlar: aç/kapa, sıfırla, mm/inç, ABS, bilgi ön ayarı, ölçüm yönü değiştirme
- CR2032 Lityum Pil, otomatik kapatma
- Bilgi çıkışı
- Paslanmaz çelik taban
- Sivri uç
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-40**, **7302-SPC3A**, **7305-SPC1A**, **7305-C01**)



2142-102

Kod	Ölçüm aralığı	Komparatör saat hassasiyeti	Doğruluk	Taban
2142-101	0-12,7mm/0-0,5"	0,01mm/0,0005"	±20µm	Ø16mm
2142-102	0-12,7mm/0-0,5"	0,01mm/0,0005"	±20µm	Ø25mm
2142-301	0-12,7mm/0-0,5"	0,001mm/0,00005"	±5µm	Ø16mm
2142-302	0-12,7mm/0-0,5"	0,001mm/0,00005"	±5µm	Ø25mm

METRİK DİJİTAL KUMPASLAR

“BEKLE” TUŞUNA BASILI
TUTARAK KİLİTLEME

BİLGİ
ÇIKIŞI

**KALİBRASYON
SERTİFİKASI**
DKD ONAYLI

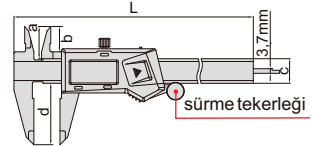
- Hassasiyet: 0,01mm
- Tuşlar: açma/kapama, sıfırlama, bekletme
- Otomatik kapatma, dijital üniteyi hareket ettirerek açma
- CR2032 Lityum Pil
- Bilgi çıkışı
- DIN862 Standardına uygundur
- Paslanmaz çelikten imal edilmiştir
- Seçmeli aksesuar: veri çıkış kablosu
(kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)



1109-150

(mm)

Kod	Ölçüm aralığı	Doğruluk	Sürme tekerleği	L	a	b	c	d
1109-150 *	0-150mm	±0,03mm	dahil	236	21	16	16	40
1109-200 *	0-200mm	±0,03mm	dahil	286	24	19	16	50
1109-300 *	0-300mm	±0,03mm	dahil	400	25	20,5	16	60
1109-150W *	0-150mm	±0,03mm	hariç	236	21	16	16	40
1109-200W *	0-200mm	±0,03mm	hariç	286	24	19	16	50
1109-300W *	0-300mm	±0,03mm	hariç	400	25	20,5	16	60



* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir

- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: açma/kapama, sıfırlama, mm/inch
- Otomatik kapatma, dijital üniteyi hareket ettirerek açma
- CR2032 Lityum Pil, bilgi çıkışı
- DIN862 Standardına uygundur
- Paslanmaz çelikten imal edilmiştir
- Seçmeli aksesuar: veri çıkış kablosu
(kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)

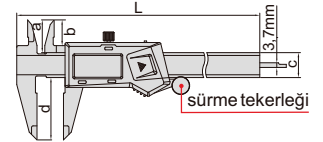
DİJİTAL KUMPAS (STANDART MODEL)



1108-150

(mm)

Kod	Ölçüm aralığı	Doğruluk	Sürme tekerleği	L	a	b	c	d
1108-150 *	0-150mm/0-6"	±0,02mm	dahil	236	21	16	16	40
1108-200 *	0-200mm/0-8"	±0,03mm	dahil	286	24	19	16	50
1108-250 *	0-250mm/0-10"	±0,03mm	dahil	350	25	20,5	16	60
1108-300 *	0-300mm/0-12"	±0,03mm	dahil	400	25	20,5	16	60
1108-150W *	0-150mm/0-6"	±0,02mm	hariç	236	21	16	16	40
1108-200W *	0-200mm/0-8"	±0,03mm	hariç	286	24	19	16	50
1108-250W *	0-250mm/0-10"	±0,03mm	hariç	350	25	20,5	16	60
1108-300W *	0-300mm/0-12"	±0,03mm	hariç	400	25	20,5	16	60



* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir

KARBÜR ÖLÇME ÇENELİ DİJİTAL KUMPASLAR

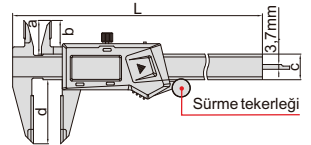
- İç ve dış ölçüm için karbür ölçme çenesi
 - Hassasiyet: 0,01mm/0,0005"
 - Tuşlar: açma/kapama, sıfırlama, mm/inch
 - Otomatik kapatma, dijital üniteyi hareket ettirerek açma
 - CR2032 Lityum Pil, veri çıkışı, DIN862 Standardına uygundur
 - Paslanmaz çelikten imal edilmiştir
 - Opsiyonel aksesuar: bilgi çıkış kablo
- (kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)



1110-150A

(mm)

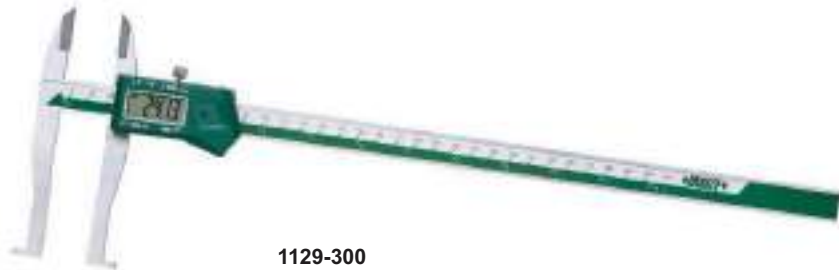
Kod	Ölçüm aralığı	Doğruluk	Sürme tekerleği	L	a	b	c	d
1110-150A*	0-150mm/0-6"	±0,03mm	dahil	236	21	16	16	40
1110-200A*	0-200mm/0-8"	±0,03mm	dahil	286	24	19	16	50
1110-300A*	0-300mm/0-12"	±0,03mm	dahil	400	25	20,5	16	60
1110-150AW*	0-150mm/0-6"	±0,03mm	hariç	236	21	16	16	40
1110-200AW*	0-200mm/0-8"	±0,03mm	hariç	286	24	19	16	50
1110-300AW*	0-300mm/0-12"	±0,03mm	hariç	400	25	20,5	16	60



* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir

DIGITAL DEEP HOLE INSIDE GROOVE CALIPERS

DATA
OUTPUT



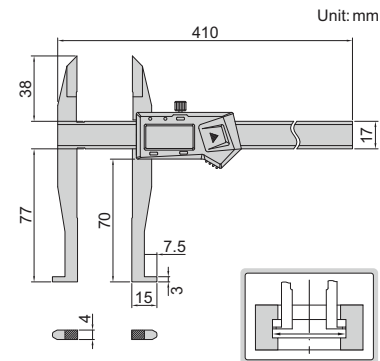
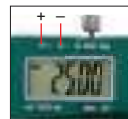
1129-300

- Measure diameter of grooves inside deep holes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel
- Optional accessory: depth stop (code **6143**)

depth stop **6143** (optional)



preset buttons



With data interface
(data output cable code 7315-21, 7302-21, optional)

Code	Range of upper jaw	Range of lower jaw	Accuracy
1129-300	0-300mm/0-12"	30-300mm/1.2-12"	±0.04mm

Built-in wireless

Code	Range of upper jaw	Range of lower jaw	Accuracy
1129-300WL	0-300mm/0-12"	30-300mm/1.2-12"	±0.04mm

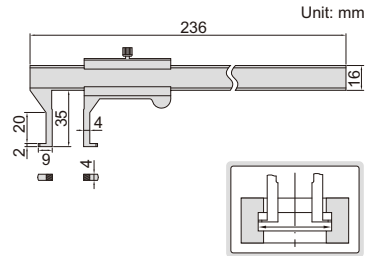
INSIDE GROOVE VERNIER CALIPER

- Measure diameter of grooves inside bores
- Made of stainless steel
- Satin chrome plated reading surface



1262-150A

Code	Range	Graduation	Accuracy
1262-150A	18-150mm	0.02mm	±0.04mm



**DATA
OUTPUT**

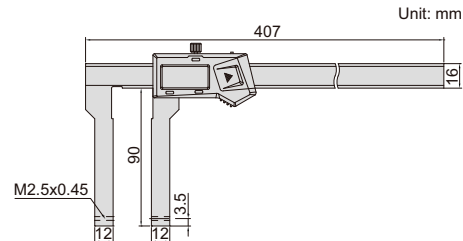


VIDEO

A digital multimeter (DMM) is shown with its display set to 25.00V. The red and black test leads are connected to the positive and negative terminals of the battery, respectively.



-



Code	Range*	Accuracy
1530-300	0-300mm/0-12"	±0.04mm

Code	Range*	Accuracy
1530-300WL	0-300mm/0-12"	±0.04mm

* For different points, the measuring range changes accordingly



CALIPER END GRINDING MACHINE CODE 6309

- Used for grinding the depth measuring surface of the end of calipers



on/off

SPECIFICATION

Power supply	220V, 50/60Hz
Dimension (L×W×H)	370×200×160mm
Weight	15kg

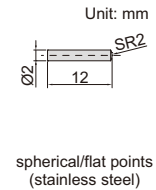
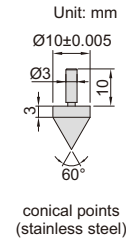
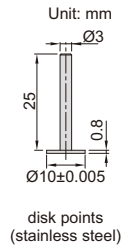
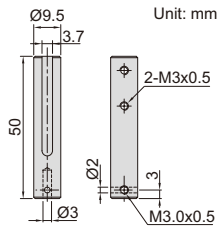
application



ACCESSORY SET FOR DIGITAL CALIPERS CODE 6144

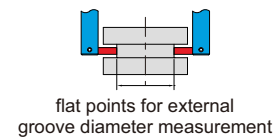
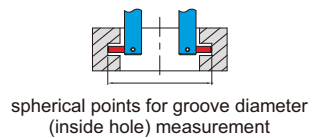
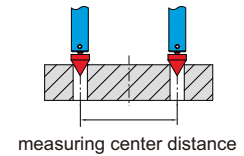
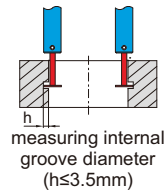


6144



- Suitable for 0-150mm/0-6" and 0-200mm/0-8" digital calipers (thickness of lower jaws≤3.7mm)

Code
6144





ATTENTION:
NO DATA OUTPUT

IP67
WATERPROOF

IP67 WATERPROOF DIGITAL CALIPERS

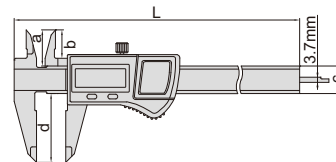
- IP67 dust/waterproof
- Resolution: 0.01mm/0.0005"
- Button function: zero, on/off, mm/inch
- Battery CR2032
- Automatic power off
- Meet DIN862
- Made of stainless steel



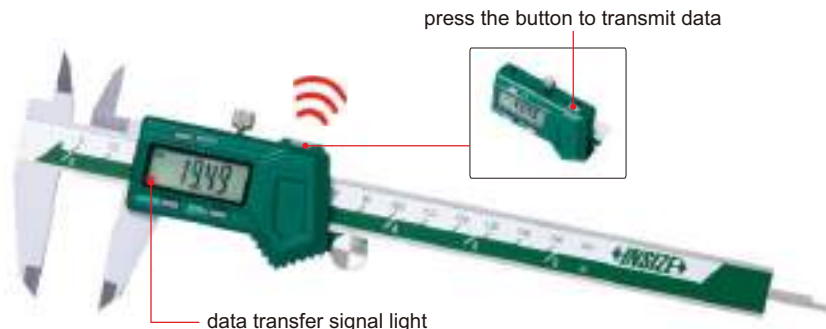
1115-150

Code	Range	Accuracy	L	a	b	c	d
1115-150 *	0-150mm/0-6"	±0.03mm	235mm	20mm	15mm	16mm	40mm
1115-200 *	0-200mm/0-8"	±0.03mm	287mm	24mm	19mm	16mm	50mm
1115-300 *	0-300mm/0-12"	±0.03mm	388mm	26mm	21mm	16mm	60mm

* Supplied with manufacturer inspection certificate



WIRELESS DIGITAL CALIPERS (NON-WATERPROOF)

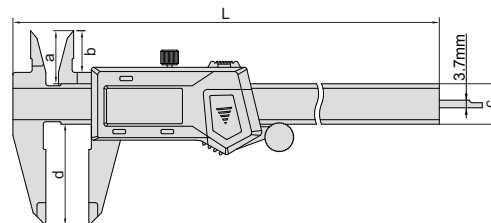


- Built-in wireless data transfer module, zigbee signal
- Transfer distance is 6 meter
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, data transfer
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel
- Optional accessory: receiver(code **7315-2**, **7315-3**)

1113-150

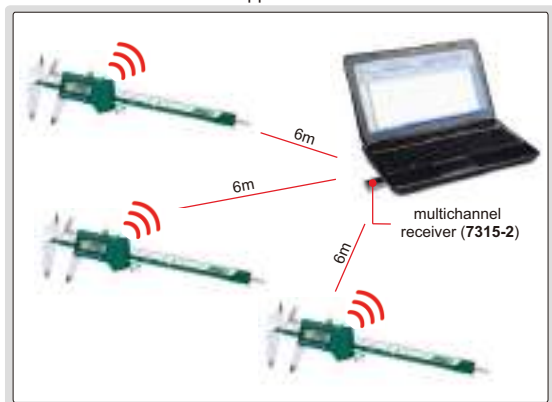
Code	Range	Accuracy	L	a	b	c	d
1113-150*	0-150mm/0-6"	±0.03mm	236	21	16	16	40
1113-200*	0-200mm/0-8"	±0.03mm	286	24	19	16	50
1113-300*	0-300mm/0-12"	±0.03mm	400	25	20.5	16	60

(mm)

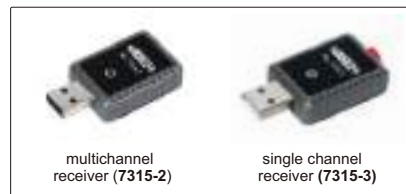


* Supplied with manufacturer inspection certificate traceable to DKD Germany

application



receiver(optional)



3-PIECE MEASURING TOOL SET

■ Includes:

- 1) Vernier caliper, range 0-150mm graduation 0.02mm (code **1205-1501S**)
- 2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3203-25A**)
- 3) Steel rule, range 150mm/6", graduation 0.5mm, 1mm, 1/64", 1/32", 1/16" (code **7110-150**)
- 4) Dust free gloves and dust free cloth

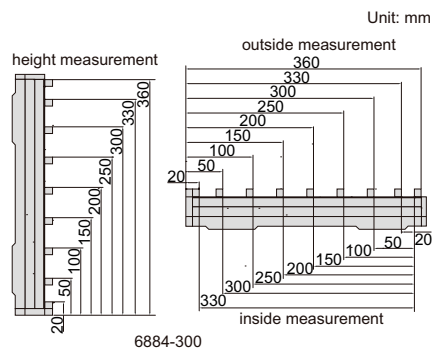
dust free gloves and dust free cloth



Code

5032

5032

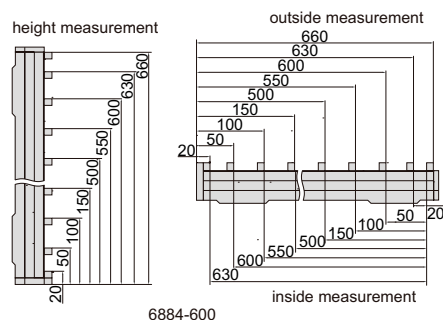


horizontal use

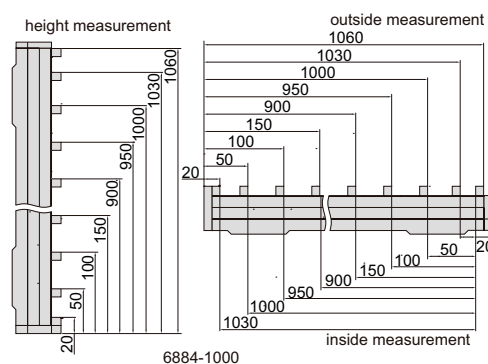


vertical use

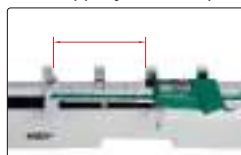
6884-300



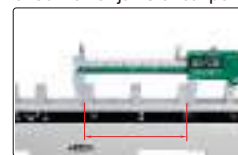
- To check calipers and height gages
- Constructed with steel gage blocks



check upper jaws of calipers



check lower jaws of calipers



check height gages



(mm)

Code	Size	Range of inside measurement	Range of outside measurement	Range of height measurement	Accuracy
6884-300 *	0-300mm	20, 50, 100, 150, 200, 250, 300, 330	20, 50, 100, 150, 200, 250, 300, 330, 360	20, 50, 100, 150, 200, 250, 300, 330, 360	±3μm
6884-600 *	0-600mm	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 630	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 630, 660	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 630, 660	±5μm
6884-1000 *	0-1000mm	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1030	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1030, 1060	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1030, 1060	±7μm

* Supplied with manufacturer inspection certificate

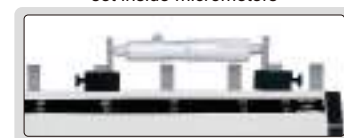
INSIDE MICROMETER ACCESSORY

- Supplied with a pair of 5mm carbide gage blocks



6884-A10

set inside micrometers



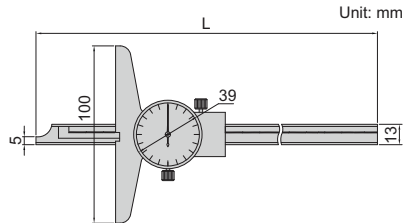
Code

6884-A10 *

* Supplied with manufacturer inspection certificate

**SHOCK
PROOF**

- Shockproof dial indicator
- Made of stainless steel



Code	Range	Graduation	Accuracy	L
1340-150	0-150mm	0.02mm	$\pm 0.03\text{mm}$	232mm
1340-200	0-200mm	0.02mm	$\pm 0.03\text{mm}$	282mm
1340-300	0-300mm	0.02mm	$\pm 0.04\text{mm}$	382mm

DIAL DEPTH GAGES



1340-150

ATTENTION:
NO DATA OUTPUT

ATTENTION: THE WORKING LIFE
OF A BATTERY IS ABOUT 4-6 MONTHS

IP67 WATERPROOF DIGITAL DEPTH GAGES

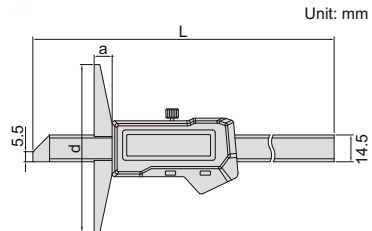
IP67
WATERPROOF

- IP67 dust/waterproof
- Resolution: 0.01mm/0.0005"
- Large display
- Button function: zero, on/off, mm/inch
- Battery CR2032, automatic power off
- Meet DIN862
- Made of stainless steel



1541-150

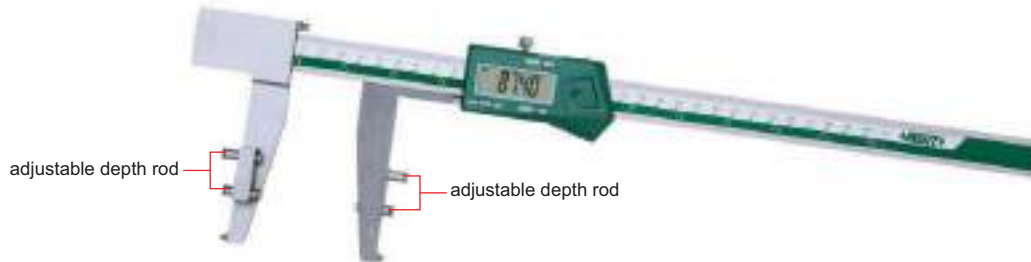
Code	Range	Accuracy	L	a	d
1541-150	0-150mm/0-6"	±0.03mm	232.5mm	11mm	100mm
1541-200	0-200mm/0-8"	±0.03mm	285mm	11mm	100mm
1541-300	0-300mm/0-12"	±0.03mm	390mm	13.5mm	150mm



DATA
OUTPUT

DIGITAL DRUM BRAKE CALIPER

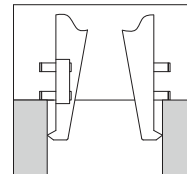
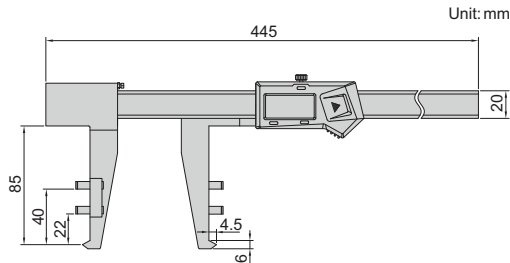
calibration block (included)



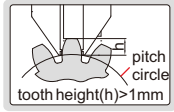
1538-300

- Measure internal diameter of drum brakes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-22**, **7302-22**)

Code	Range	Accuracy
1538-300	30-300mm/1.2-12"	±0.05mm



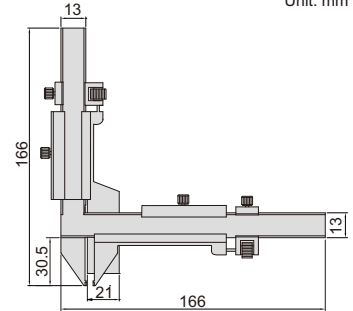
GEAR TOOTH VERNIER CALIPER



- Carbide tips
- Measure the tooth thickness by positioning the tooth height (for tooth height>1mm)
- Made of stainless steel
- Satin chrome plated reading surface



1281-M26A



Unit: mm

Code	Range	Graduation	Accuracy of height measurement	Accuracy of thickness measurement	Total accuracy
1281-M26A	M1-26mm	0.02mm	±0.03mm	±0.03mm	±0.04mm

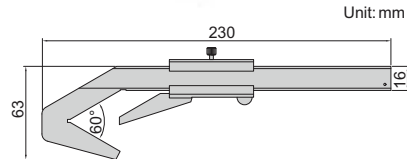
V SHAPE VERNIER CALIPER

- Measure outside diameter of three number of flutes (such as taps, reamers, end mills and gears)
- Made of stainless steel
- Satin chrome plated reading surface

Code	Range	Graduation	Accuracy
1273-403	Ø4-40mm	0.05mm	±0.05mm



1273-403



DIGITAL V SHAPE CALIPERS

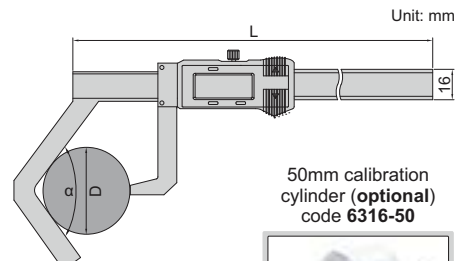
- Measure the outside diameter of odd number of flutes (such as taps, reamers, end mills and gears)
- Direct reading, calculation is not required
- Resolution: 0.01mm/0.0005"
- Buttons: mm/inch, on/off, origin set
- Battery LR44, automatic power off
- After automatic power off, move the digital unit to turn on power
- Data output
- Made of stainless steel
- Optional accessory:
50mm calibration cylinder (code **6316-50**),
data output cable (code **7302-SPC9**)



DIRECT READING,
CALCULATION IS NOT REQUIRED

DATA
OUTPUT

1529-5



50mm calibration
cylinder (**optional**)
code **6316-50**

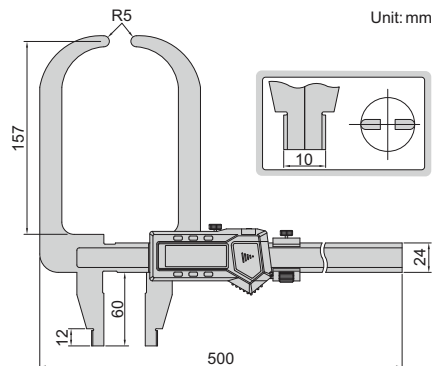
data output cable
(**optional**)
code **7302-SPC9**



Code	Range(D)	Flutes	Accuracy	Angle α	L
1529-3	50-200mm/2-8"	3	$\pm 0.06\text{mm}$	60°	390mm
1529-5	50-200mm/2-8"	5	$\pm 0.06\text{mm}$	108°	318mm
1529-19	50-200mm/2-8"	19	$\pm 0.06\text{mm}$	$85^\circ 15' 47''$	336mm
1529-23	50-200mm/2-8"	23	$\pm 0.06\text{mm}$	$70^\circ 26' 5''$	362mm
1529-31	50-200mm/2-8"	31	$\pm 0.06\text{mm}$	$75^\circ 29' 2''$	355mm

DIGITAL WALL THICKNESS CALIPERS

DATA
OUTPUT



1536-300

With data interface (data output cable
code 7315-22, 7302-22, optional)

Code	Range	Accuracy
1536-300	0-300mm/0-12"	±0.05mm

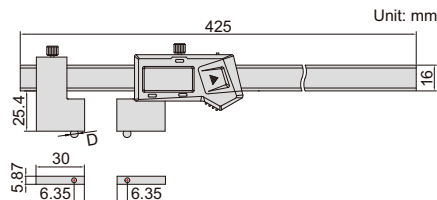
Built-in wireless

Code	Range	Accuracy
1536-300WL	0-300mm/0-12"	±0.05mm

- Measure wall thickness of helmets, domes and curved pots
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, ABS, data preset
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel

DIGITAL CALIPERS WITH INTERCHANGEABLE BALL TIPS

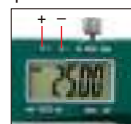
DATA
OUTPUT



ball tips are optional

1528-3001

preset buttons



- Resolution 0.01mm/.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: ball tips

Ball tips (optional, supplied in pair)



1527-T101

type A



1527-T104

type B

With data interface (data output cable code 7315-21, 7302-21, optional)

Code	Range	Accuracy
1528-3001	(12.7+D)~300mm*	±0.03mm

Built-in wireless (receiver code 7315-2 or 7315-3 is required)

Code	Range	Accuracy
1528-3001WL	(12.7+D)~300mm*	±0.03mm

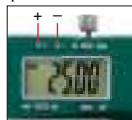
*"D" is the diameter of ball tips.

Code	Diameter (D)	Accuracy of diameter	Type	Material
1527-T101	1/16" (Ø1.5875mm)	±0.005mm	A	Ruby
1527-T102	1/8" (Ø3.175mm)	±0.005mm	B	Stainless steel
1527-T103	3/16" (Ø4.7625mm)	±0.005mm	B	Stainless steel
1527-T104	1/4" (Ø6.35mm)	±0.005mm	B	Stainless steel
1527-T105	3/8" (Ø9.525mm)	±0.005mm	B	Stainless steel
1527-T106	1/2" (Ø12.7mm)	±0.005mm	B	Stainless steel

DATA
OUTPUT

DIGITAL CALIPERS WITH INTERCHANGEABLE BALL TIPS

preset buttons

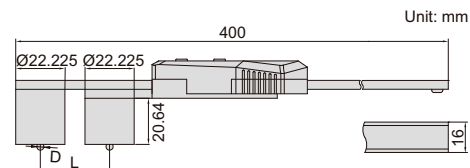


1527-3001

back-jaw



ball tips are optional



Unit: mm

- Resolution 0.01mm/.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: ball tips

With data interface (data output cable code 7315-21, 7302-21, optional)

Code	Range	Accuracy
1527-3001	(22.22+D)~300mm*	±0.03mm

Built-in wireless (receiver code 7315-2 or 7315-3 is required)

Code	Range	Accuracy
1527-3001WL	(22.22+D)~300mm*	±0.03mm

*"D" is the diameter of ball tips.

Ball tips (optional, supplied in pair)



Unit: mm

1527-T101

type A



Unit: mm

1527-T104

type B

Code	Diameter (D)	Accuracy of diameter	Type	Material
1527-T101	1/16" (Ø1.5875mm)	±0.005mm	A	Ruby
1527-T102	1/8" (Ø3.175mm)	±0.005mm	B	Stainless steel
1527-T103	3/16" (Ø4.7625mm)	±0.005mm	B	Stainless steel
1527-T104	1/4" (Ø6.35mm)	±0.005mm	B	Stainless steel
1527-T105	3/8" (Ø9.525mm)	±0.005mm	B	Stainless steel
1527-T106	1/2" (Ø12.7mm)	±0.005mm	B	Stainless steel

DIGITAL CALIPERS WITH ONE DIRECTION UPPER JAWS

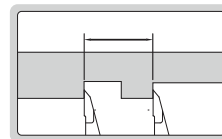
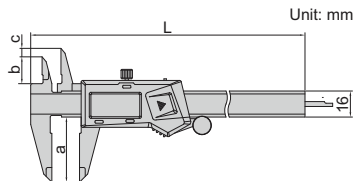


1184-200

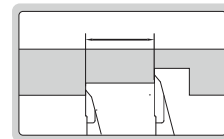


1184-150A

- Resolution: 0.01mm/0.0005"
- Buttons: zero, power on/off, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Optional accessory: data output cable (code **7315-21**, **7302-21**)



jaws with same height used for measuring the distance in same level



jaws with different height used for measuring the distance in different level

Jaws with same height

(mm)

Code	Range	Accuracy	L	a	b	c
1184-150	0-150mm/0-6"	±0.03mm	236	40	17	0
1184-200	0-200mm/0-8"	±0.03mm	286	50	20	0
1184-300	0-300mm/0-12"	±0.03mm	400	60	22	0

Jaws with different height

(mm)

Code	Range	Accuracy	L	a	b	c
1184-150A	0-150mm/0-6"	±0.03mm	236	40	17	5
1184-200A	0-200mm/0-8"	±0.03mm	286	50	20	8
1184-300A	0-300mm/0-12"	±0.03mm	400	60	22	10

DIGITAL CALIPERS WITH LONG UPPER JAWS

- Long upper jaws for measuring diameter of deep holes
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel



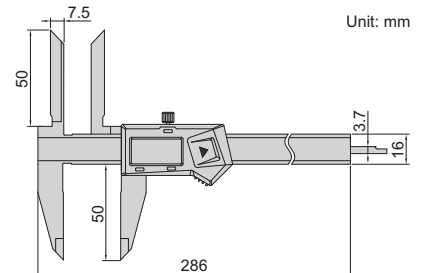
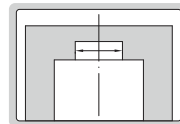
1138-200

With data interface (data output cable code 7315-21, 7302-21, optional)

Code	Range	Accuracy
1138-200	0-200mm/0-8"	±0.04mm

Built-in wireless

Code	Range	Accuracy
1138-200WL	0-200mm/0-8"	±0.04mm



DIGITAL CALIPERS WITH KNIFE EDGE LOWER JAWS

DATA OUTPUT

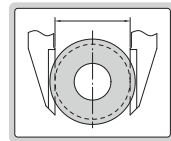
- Measure diameter of narrow grooves
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel

With data interface (data output cable code 7315-21, 7302-21, optional)

Code	Range	Accuracy
1532-200	0-200mm/0-8"	±0.03mm

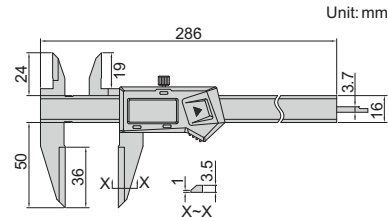


1532-200



Built-in wireless

Code	Range	Accuracy
1532-200WL	0-200mm/0-8"	±0.03mm



DIGITAL OUTSIDE GROOVE CALIPERS

DATA
OUTPUT

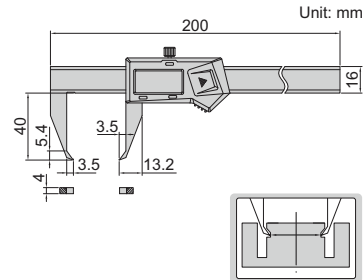
- Measure grooves and recesses in small spaces
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel



1535-100

With data interface (data output cable code 7315-21, 7302-21, optional)

Code	Range	Accuracy
1535-100	0-100mm/0-4"	±0.03mm

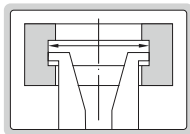


Built-in wireless

Code	Range	Accuracy
1535-100WL	0-100mm/0-4"	±0.03mm

DATA OUTPUT

- Upper jaws for measuring diameter of grooves
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel



With data interface (data output cable code 7315-21, 7302-21, optional)

Code	Range of upper jaw	Range of lower jaw	Accuracy
1191-150	8-150mm/0.3-6"	0-150mm/0-6"	±0.03mm

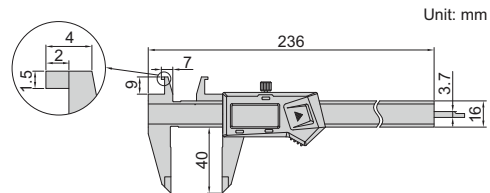
Built-in wireless

Code	Range of upper jaw	Range of lower jaw	Accuracy
1191-150WL	8-150mm/0.3-6"	0-150mm/0-6"	±0.03mm

DIGITAL INSIDE GROOVE CALIPERS



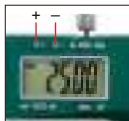
1191-150



DATA OUTPUT

- Measure diameter or distance of grooves
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel

preset buttons



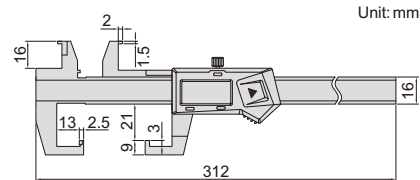
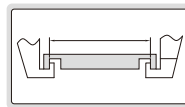
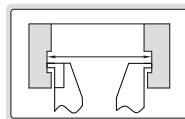
1128-200

With data interface (data output cable code 7315-21, 7302-21, optional)

Code	Range of upper jaw	Range of lower jaw	Accuracy
1128-200	10-200mm/0.39-8"	3-200mm/0.12-8"	±0.03mm

Built-in wireless

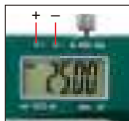
Code	Range of upper jaw	Range of lower jaw	Accuracy
1128-200WL	10-200mm/0.39-8"	3-200mm/0.12-8"	±0.03mm



DATA OUTPUT

- Measure diameter or distance of grooves
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, set, mm/inch, preset (+, -)
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel

preset buttons



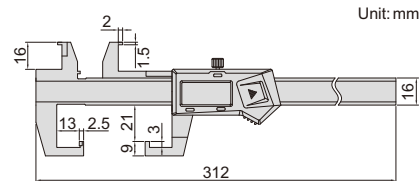
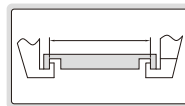
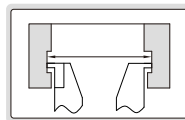
1128-200

With data interface (data output cable code 7315-21, 7302-21, optional)

Code	Range of upper jaw	Range of lower jaw	Accuracy
1128-200	10-200mm/0.39-8"	3-200mm/0.12-8"	±0.03mm

Built-in wireless

Code	Range of upper jaw	Range of lower jaw	Accuracy
1128-200WL	10-200mm/0.39-8"	3-200mm/0.12-8"	±0.03mm



MEKANİK KUMPAS (MONO BLOK)

- Hassas ayarlı
- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplamalı okuma yüzeyi

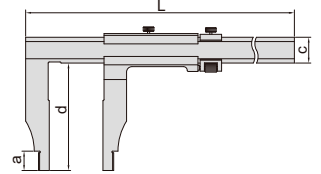
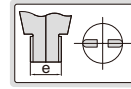


1208-511

Hassasiyet: 0,05mm/1/128"

(mm)

Kod	Ölçüm aralığı	Doğruluk	a	c	d	e	L
1208-214	0-200mm/0-8"	±0,06mm	10	20	100	10	330
1208-394	0-300mm/0-12"	±0,07mm	10	20	90	10	410
1208-324	0-300mm/0-12"	±0,07mm	18	24	150	20	410
1208-524	0-500mm/0-20"	±0,08mm	18	24	150	20	670
1208-614	0-600mm/0-24"	±0,08mm	18	24	100	20	770
1208-624	0-600mm/0-24"	±0,09mm	18	24	150	20	770
1208-824	0-800mm/0-32"	±0,09mm	24	31	150	20	1030
1208-1024	0-1000mm/0-40"	±0,12mm	24	31	150	20	1230
1208-1524	0-1500mm/0-60"	±0,16mm	24	42	150	20	1820
1208-2024	0-2000mm/0-80"	±0,20mm	24	42	150	20	2330



Hassasiyet: 0,02mm

(mm)

Kod	Ölçüm aralığı	Doğruluk	a	c	d	e	L
1208-511	0-500mm	±0,05mm	18	24	100	20	670
1208-521	0-500mm	±0,06mm	18	24	150	20	670
1208-1021	0-1000mm	±0,08mm	24	31	150	20	1230
1208-1521	0-1500mm	±0,11mm	24	42	150	20	1820

MEKANİK KUMPAS (MONO BLOK)

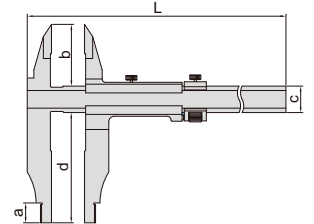
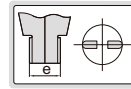
- Hassasiyet 0,05mm/1/128"
- Hassas ayarlı
- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplamalı okuma yüzeyi



1207-514

(mm)

Kod	Ölçüm aralığı	Doğruluk	a	b	c	d	e	L
1207-394	0-300mm/0-12"	±0,07mm	12	40	20	90	10	440
1207-514	0-500mm/0-20"	±0,07mm	18	56	24	100	20	670
1207-524	0-500mm/0-20"	±0,08mm	18	56	24	150	20	670
1207-824	0-800mm/0-32"	±0,09mm	24	67	31	150	20	930
1207-1024	0-1000mm/0-40"	±0,12mm	24	67	31	150	20	1230

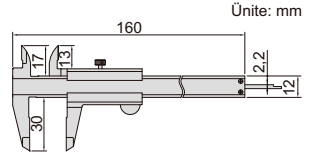


MİNİ MEKANİK KUMPAS

- DIN862 Standardına uygundur
- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplamalı okuma yüzeyi



1203-1003



Kod	Ölçüm aralığı	Hassasiyet	Doğruluk
1203-1003	0-100mm	0,05mm	$\pm 0,05\text{mm}$

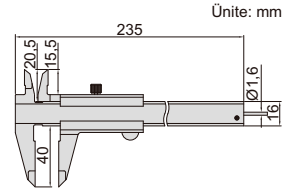
YUVARLAK DERİNLİK ÇUBUKLU MEKANİK KUMPASLAR

- Hassasiyet: 0,05mm/1/128"
- Yuvarlak derinlik çubuğu
- DIN862 Standardına uygundur
- Paslanmaz çelikten imal edilmiştir
- Parlak krom kaplamalı okuma yüzeyi



1202-150

Kod	Ölçüm aralığı	Doğruluk
1202-150	0-150mm/0-6"	±0,05mm



300mm AĞIR İŞ DİJİTAL KUMPASI

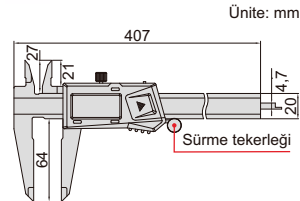
BİLGİ
ÇIKIŞI

**KALİBRASYON
SERTİFİKASI**
DKD ONAYLI

- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: açma/kapama, sıfırlama, mm/inch
- Otomatik kapanma ve dijital üniteyi hareket ettirerek açma
- CR2032 Lityum Pil, bilgi çıkışı
- DIN862 Standardına uygundur
- Paslanmaz çelikten imal edilmiştir
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)



1196-300



Kod	Ölçüm aralığı	Sürme tekerleği	Doğruluk
1196-300 *	0-300mm/0-12"	dahil	±0,03mm
1196-300W *	0-300mm/0-12"	hariç	±0,03mm

* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir

- Dış ölçüm için seramik ölçme ağız aşınmaya dayanıklı, antimanyetik, iletken olmayan malzeme
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: açma/kapama, sıfırlama, mm/inch
- Otomatik kapatma, dijital üniteyi hareket ettirerek açma
- CR2032 Lityum Pil, veri çıkışı, paslanmaz çelikten imal edilmiştir
- DIN862 Standardına uygundur
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)

SERAMİK ÖLÇME AĞIZLI DİJİTAL KUMPASLAR

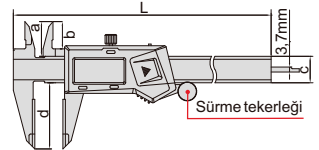
seramik
ölçüm ağızları



1193-150

(mm)

Kod	Ölçüm aralığı	Doğruluk	Sürme tekerleği	L	a	b	c	d
1193-150*	0-150mm/0-6"	±0,03mm	dahil	235	21	16,5	16	40
1193-200*	0-200mm/0-8"	±0,03mm	dahil	297	24	20	16	50
1193-300*	0-300mm/0-12"	±0,03mm	dahil	390	26	21,5	16	60
1193-150W*	0-150mm/0-6"	±0,03mm	hariç	235	21	16,5	16	40
1193-200W*	0-200mm/0-8"	±0,03mm	hariç	297	24	20	16	50
1193-300W*	0-300mm/0-12"	±0,03mm	hariç	390	26	21,5	16	60



Sürme tekerleği

* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir

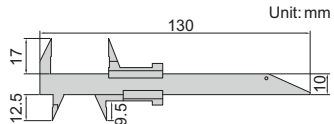
TEETH VERNIER CALIPER



1226-70

- Used for teeth
- Made of stainless steel

Code	Range	Graduation	Accuracy
1226-70	0-70mm	0.1mm	±0.1mm



scale on the back



DIGITAL CALIPERS (FRACTION READING)

- Resolution: 0.01mm, 0.0005", 1/128"
- Buttons: unit (mm/in/fraction), ABS, on/off, zero
- Absolute and incremental measurement
- Battery CR2032, automatic power off
- Meet DIN862
- Made of stainless steel



fraction reading



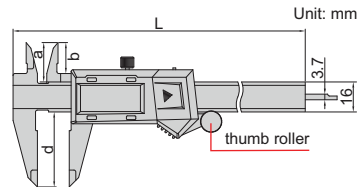
1102-150

ATTENTION:
NO DATA OUTPUT

**INSPECTION
CERTIFICATE**
TRACEABLE TO DKD

Code	Range	Accuracy	Thumb roller	L	a	b	d
1102-150 *	0-150mm/0-6"	±0.03mm	with	234mm	20mm	15mm	40mm
1102-200 *	0-200mm/0-8"	±0.03mm	with	286mm	24mm	19mm	50mm
1102-300 *	0-300mm/0-12"	±0.03mm	with	390mm	26mm	21.5mm	60mm
1102-150W *	0-150mm/0-6"	±0.03mm	without	234mm	20mm	15mm	40mm
1102-200W *	0-200mm/0-8"	±0.03mm	without	286mm	24mm	19mm	50mm
1102-300W *	0-300mm/0-12"	±0.03mm	without	390mm	26mm	21.5mm	60mm

* Supplied with manufacturer inspection certificate traceable to DKD Germany



DIGITAL CALIPERS (ABSOLUTE SYSTEM)

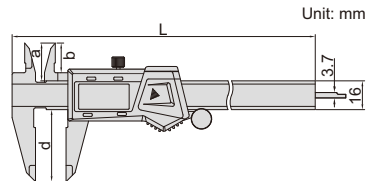
- Absolute system, low power consumption, long battery life
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, mm/inch, ORIGIN, ZERO/ABS
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: wireless transmitter, code **7315-1103**, data output cable (keyboard format), code **7302-1103**



1103-150

Code	Range	Accuracy	L	a	b	d
1103-150 *	0-150mm/0-6"	±0.03mm	236mm	21mm	16.5mm	40mm
1103-200 *	0-200mm/0-8"	±0.03mm	286mm	24mm	19.5mm	50mm
1103-300 *	0-300mm/0-12"	±0.03mm	400mm	26mm	21.5mm	60mm

* Supplied with manufacturer inspection certificate

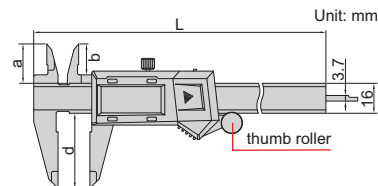


IP54 WATERPROOF DIGITAL CALIPERS



1104-150

- IP54 dust/waterproof
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, ABS/REL
- Automatic power off
- Battery CR2032
- Data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: wireless transmitter, code **7315-1104**, data output cable (keyboard format), code **7302-1104**



Code	Range	Accuracy	Thumb roller	L	a	b	d
1104-150*	0-150mm/0-6"	±0.03mm	with	234mm	20mm	15mm	40mm
1104-200*	0-200mm/0-8"	±0.03mm	with	286mm	24mm	19mm	50mm
1104-300*	0-300mm/0-12"	±0.03mm	with	390mm	26mm	21.5mm	60mm
1104-150W*	0-150mm/0-6"	±0.03mm	without	234mm	20mm	15mm	40mm
1104-200W*	0-200mm/0-8"	±0.03mm	without	286mm	24mm	19mm	50mm
1104-300W*	0-300mm/0-12"	±0.03mm	without	390mm	26mm	21.5mm	60mm

*Supplied with manufacturer inspection certificate traceable to DKD Germany

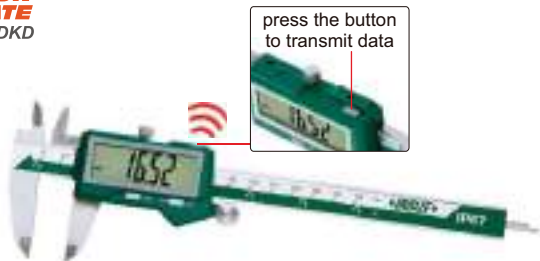
BUILT-IN BLUETOOTH IP67 WATERPROOF DIGITAL CALIPERS

**INSPECTION
CERTIFICATE**
TRACEABLE TO DKD

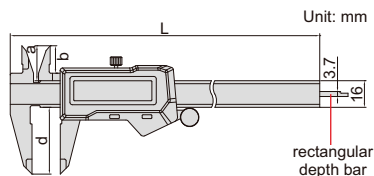
BLUETOOTH

IP67
WATERPROOF

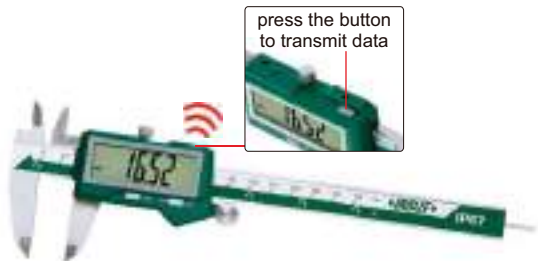
ATTENTION: THE WORKING LIFE
OF A BATTERY IS ABOUT 4-6 MONTHS



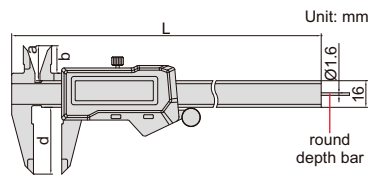
1127-150



type A



1127-150R



type R

- Built-in bluetooth 4.0 wireless transmission module, connect with computers (with bluetooth receiver), mobile phones, tablets, etc., and output keyboard signals
- Transmission distance is 10 meters (under the condition of no obstruction and no electromagnetic interference)
- IP67 dust/waterproof
- Resolution: 0.01mm/0.0005"
- Large display
- Button function: zero, on/off, mm/inch, data transmission
- Battery CR2032, automatic power off
- Meet DIN862
- Made of stainless steel

								(mm)
Code	Range	Accuracy	Type	L	a	b	d	
1127-150 *	0-150mm/0-6"	±0.03mm	A	234	20	15	40	
1127-200 *	0-200mm/0-8"	±0.03mm	A	286	24	19	50	
1127-300 *	0-300mm/0-12"	±0.03mm	A	390	26	21.5	60	
1127-150R *	0-150mm/0-6"	±0.03mm	R	234	20	15	40	

* Supplied with manufacturer inspection certificate traceable to DKD Germany

IP67 WATERPROOF DIGITAL CALIPERS

**INSPECTION
CERTIFICATE**
TRACEABLE TO DKD

IP67
WATERPROOF

ATTENTION:
NO DATA OUTPUT

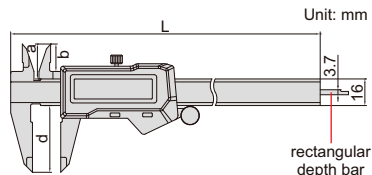
**ATTENTION: THE WORKING LIFE
OF A BATTERY IS ABOUT 4-6 MONTHS**



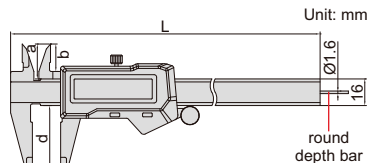
1126-150



1126-150R



type A



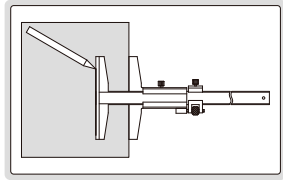
type R

- IP67 dust/waterproof
- Resolution: 0.01mm/0.0005"
- Large display
- Button function: zero, on/off, mm/inch
- Battery CR2032
- Automatic power off
- Meet DIN862
- Made of stainless steel

(mm)							
Code	Range	Accuracy	Type	L	a	b	d
1126-150 *	0-150mm/0-6"	±0.03mm	A	234	20	15	40
1126-200 *	0-200mm/0-8"	±0.03mm	A	286	24	19	50
1126-300 *	0-300mm/0-12"	±0.03mm	A	390	26	21.5	60
1126-150R *	0-150mm/0-6"	±0.03mm	R	234	20	15	40

* Supplied with manufacturer inspection certificate traceable to DKD Germany

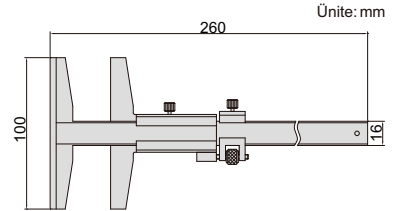
T ŞEKLİNDE İŞARETLEME KUMPASI



- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplama okuma yüzeyi



1275-150A



Kod	Ölçüm aralığı	Hassasiyet	Doğruluk
1275-150A	0-150mm	0,05mm	±0,05mm

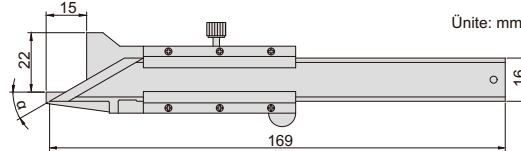
PAH ÖLÇÜM KUMPASLARI

- 30°/45°/60° pah ölçer
- Hassasiyet: 0,02mm
- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplama okuma yüzeyi

Kod	Ölçüm aralığı	Doğruluk	Pah (α)
1267-6	0-10mm	$\pm 0,06\text{mm}$	45°
1267-63	0-10mm	$\pm 0,06\text{mm}$	30°
1267-66	0-10mm	$\pm 0,06\text{mm}$	60°

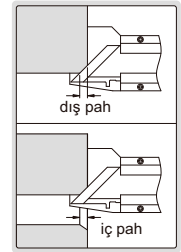


1267-6



Ünite: mm

pah ölçer



KARBÜR AĞIZLI MEKANİK KUMPASLAR

- İç ve dış çap ölçümleri için karbür ağızlı
- DIN862 Standardına uygundur
- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplamalı okuma yüzeyi

Hassasiyet: 0,05mm/1/128"

(mm)

Kod	Ölçüm aralığı	Doğruluk	L	a	b	c	d
1238-150	0-150mm/0-6"	±0,05mm	230	21	16,5	16	40
1238-200	0-200mm/0-8"	±0,05mm	295	24	19	16	50
1238-300	0-300mm/0-12"	±0,05mm	410	25	20	17	60

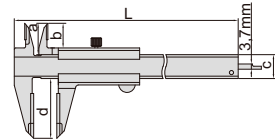


1238-150

Hassasiyet: 0,02mm/0,001"

(mm)

Kod	Ölçüm aralığı	Doğruluk	L	a	b	c	d
1238-1502	0-150mm/0-6"	±0,03mm	230	21	16,5	16	40
1238-2002	0-200mm/0-8"	±0,03mm	295	24	19	16	50
1238-3002	0-300mm/0-12"	±0,03mm	410	25	20	17	60



MEKANİK KUMPAS (MONO BLOK)



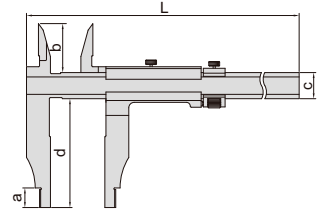
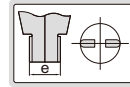
1236-521

- Hassas ayarlı
- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplamalı okuma yüzeyi

Hassasiyet: 0,05mm/1/128"

(mm)

Kod	Ölçüm aralığı	Doğruluk	a	b	c	d	e	L
1236-394	0-300mm/0-12"	±0,07mm	12	38	20	90	10	450
1236-514	0-500mm/0-20"	±0,07mm	18	45	24	100	20	670
1236-524	0-500mm/0-20"	±0,08mm	18	45	24	150	20	670
1236-614	0-600mm/0-24"	±0,08mm	18	45	24	100	20	770
1236-824	0-800mm/0-32"	±0,09mm	24	60	31	150	20	1030
1236-1024	0-1000mm/0-40"	±0,12mm	24	60	31	150	20	1230



Hassasiyet: 0,02mm

(mm)

Kod	Ölçüm aralığı	Doğruluk	a	b	c	d	e	L
1236-511	0-500mm	±0,05mm	18	45	24	100	20	670
1236-521	0-500mm	±0,06mm	18	45	24	150	20	670
1236-1021	0-1000mm	±0,08mm	24	60	31	150	20	1230

HASSAS AYARLI MEKANİK KUMPASLAR

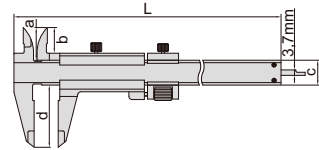
- Hassasiyet: 0,02mm/0,001"
- Hassas ayarlı
- DIN862 Standardına uygundur
- Paslanmaz çelikten imal edilmiştir
- Parlak krom kaplamalı okuma yüzeyi



1233-130

(mm)

Kod	Ölçüm aralığı	Doğruluk	L	a	b	c	d
1233-130	0-130mm/0-5"	±0,03mm	230	20,5	16,5	16	40
1233-180	0-180mm/0-7"	±0,03mm	295	23,5	19	16	50
1233-280	0-280mm/0-11"	±0,03mm	410	26	20	20	60



MEKANİK KUMPASLAR (MANYETİK OLMAYAN)

DİKKAT:
SERTLEŞTİRİLMEMİŞ

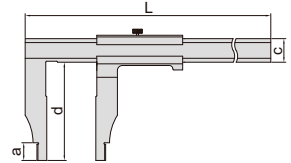
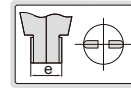
- Manyetik parçalar için uygundur
- Hassasiyet: 0,02mm
- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplamalı okuma yüzeyi
- Ölçüm yüzeyleri sertleştirilmemiştir, HRC18-22



1224-201

(mm)

Kod	Ölçüm aralığı	Doğruluk	a	c	d	e	L
1224-151	0-150mm	$\pm 0,04\text{mm}$	10	17	50	10	250
1224-201	0-200mm	$\pm 0,04\text{mm}$	10	17	50	10	300
1224-361	0-300mm	$\pm 0,04\text{mm}$	10	17	60	10	400



MANDALLI MEKANİK KUMPAS

- DIN862 Standardına uygundur
- Mandallı
- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplamalı okuma yüzeyi

Hassasiyet: 0,05mm/1/128" (mm)

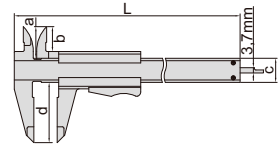
Kod	Ölçüm aralığı	Doğruluk	L	a	b	c	d
1223-150	0-150mm/0-6"	$\pm 0,05\text{mm}$	230	20,5	16,5	16	40
1223-200	0-200mm/0-8"	$\pm 0,05\text{mm}$	295	23,5	19	16	50

Hassasiyet: 0,02mm/0,001" (mm)

Kod	Ölçüm aralığı	Doğruluk	L	a	b	c	d
1223-1502	0-150mm/0-6"	$\pm 0,03\text{mm}$	230	20,5	16,5	16	40
1223-2002	0-200mm/0-8"	$\pm 0,03\text{mm}$	295	23,5	19	16	50



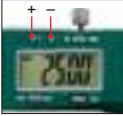
1223-150



DEĞİŞTİRİLEBİLİR UÇLU DİJİTAL KUMPASLAR KOD 1526-200

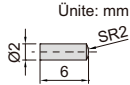
BİLGİ
ÇIKIŞI

önayar tuşu

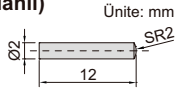


1526-200

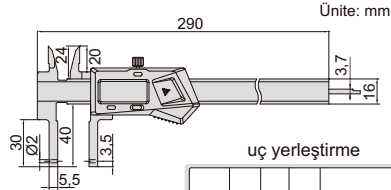
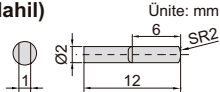
kısa küresel uçlar (dahil)



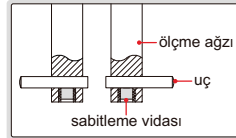
uzun küresel/düz uçlar (dahil)



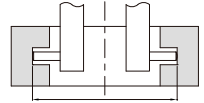
kısa küresel bıçak uçlar (dahil)



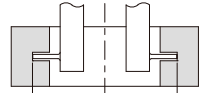
uç yerleştirme



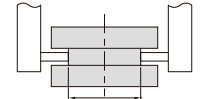
iç ve dış kanal ölçülür



kanal (delik içi) ölçümü
için küresel uçlar



dar kanalların ölçümü
için küresel sivri uçlar



dış kanallar için düz uçlar

Devam ediyor

Önceki sayfanın devamı

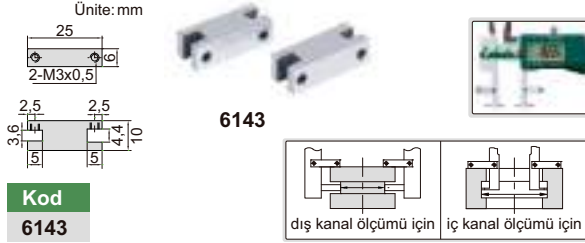
- 3 çift uç ve sıfırlama blok mastarı ile tedarik edilir dış çap ölçümü için
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç, ön ayar (+, -)
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil, bilgi çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: uçlar (kod **1526-T101**, **7392**, **7391**, **7381**, **7321**), derinlik sabitleme (kod **6143**), bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)

Sivri	Ölçüm aralığı	Doğruluk	Uygulama
kısa küresel uçlar	12-212mm/0,5-8,5" (iç)	±0,03mm	küçük delikteki kanallar için
uzun küresel/düz uçlar	24-224mm/1-8,8" (iç) 0-187mm/0-7,5" (iç)	±0,03mm	kanallar için küresel uçlar ve dış kanallar için düz uçlar
küresel sivri uçlar	24-224mm/1-8,8" (iç) 0-187mm/0-7,5" (dış)	±0,03mm	dar kanallar için

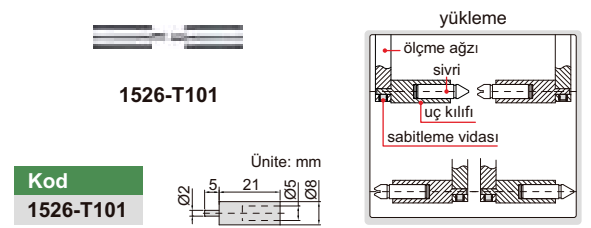
dış ölçümler için
sıfırlama mastarı (dahil)



Derinlik sabitleme (opsiyonel)



Uç kılıfı (opsiyonel)

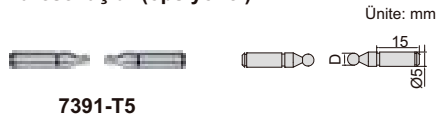


Çok fonksiyonlu uçlar (opsiyonel)

 7392-T1	 7392-T2	 7392-T3	 7392-T4	 7392-T5	 7392-T6	 7392-T7	 7392-T8	 7392-T9
Kod	Tip	Kod	Tip	Kod	Tip	Kod	Tip	Kod
7392-T1*	düz	7392-T4*	disk	7392-T7*	sivri			
7392-T2*	küresel	7392-T5*	bıçak	7392-T8*	keskin kenar			
7392-T3*	oluk	7392-T6*	keskin kenar	7392-T9*	sivri			

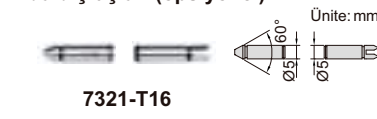
* bu uçlar için uç kılıfı kullanmak gereklidir (kod **1526-T101**)

Küresel uçlar (opsiyonel)

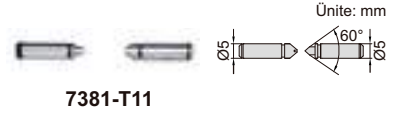


Kod	Uç çapı (D)
7391-T3*	SØ2,0mm
7391-T4*	SØ2,5mm
7391-T5*	SØ3,0mm
7391-T6*	SØ3,5mm
7391-T7*	SØ4,0mm
7391-T8*	SØ4,5mm
7391-T9*	SØ5,0mm
7391-T10*	SØ6,0mm

Vida diş uçları (opsiyonel)



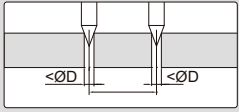
Kod	Diş adımı
7321-T11*	0,4-0,5mm/64-48TPI
7321-T12*	0,6-0,9mm/44-28TPI
7321-T13*	1-1,75mm/24-14TPI
7321-T14*	2-3mm/13-9TPI
7321-T15*	3,5-5mm/8-5TPI
7321-T16*	5,5-7mm/4,5-3,5TPI
7321-T1S*	6 çift/set, yukarıdaki bütün uçları içerir



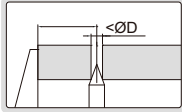
Kod	Diş adımı
7381-T11*	0,4-0,5mm/64-48TPI
7381-T12*	0,6-0,9mm/44-28TPI
7381-T13*	1-1,75mm/24-14TPI
7381-T14*	2-3mm/13-9TPI
7381-T15*	3,5-5mm/8-5TPI
7381-T16*	5,5-7mm/4,5-3,5TPI
7381-TS*	6 çift/set, yukarıdaki bütün uçları içerir

* Bu uçlar için uç kılıfı kullanmak gereklidir (kod **1526-T101**)

derinlik mesafesi ölçümü



çukur mesafe ölçümü

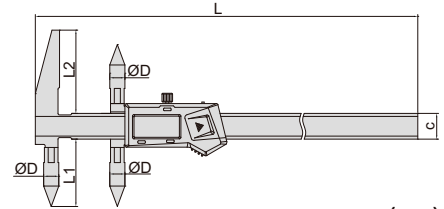


1525-300

- Aynı ya da farklı seviyelerde delik merkez mesafesi ölçer
- Çözünürlük: 0,01mm/0,0005"
- Tuşlar: sıfırlama, on/off, mm/inç
- Otomatik kapanma, göstergenin hareket ettirilmesi ile açılır
- Pili CR2032
- Bilgi çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)



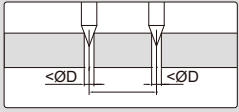
VIDEO



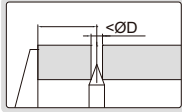
(mm)

Kod	En üst ağız aralığı en alt ağız aralığı	En üst ağız aralığı en alt ağız aralığı	Doğruluk	$\varnothing D$	L1	L2	c	L
1525-300	5-300mm/0,2-12"	10-300mm/0,4-12"	$\pm 0,08\text{mm}$	10	44,5	55	17	410
1525-500	10-500mm/0,4-20"	20-500mm/0,8-20"	$\pm 0,09\text{mm}$	20	40	50	24	690
1525-1000	15-1000mm/0,6-40"	30-1000mm/1,2-40"	$\pm 0,12\text{mm}$	30	60	70	31	1255
1525-1500	15-1500mm/0,6-60"	30-1500mm/1,2-60"	$\pm 0,15\text{mm}$	30	60	70	31	1760

derinlik mesafesi ölçümü



çukur mesafe ölçümü

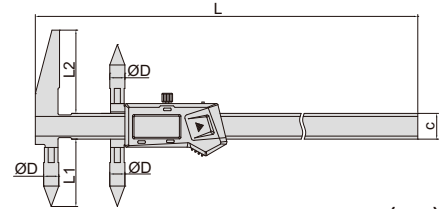


1525-300

- Aynı ya da farklı seviyelerde delik merkez mesafesi ölçer
- Çözünürlük: 0,01mm/0,0005"
- Tuşlar: sıfırlama, on/off, mm/inç
- Otomatik kapanma, göstergenin hareket ettirilmesi ile açılır
- Pili CR2032
- Bilgi çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)



VIDEO



(mm)

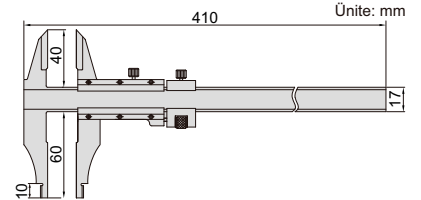
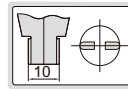
Kod	En üst ağız aralığı en alt ağız aralığı	En üst ağız aralığı en alt ağız aralığı	Doğruluk	ØD	L1	L2	c	L
1525-300	5-300mm/0,2-12"	10-300mm/0,4-12"	±0,08mm	10	44,5	55	17	410
1525-500	10-500mm/0,4-20"	20-500mm/0,8-20"	±0,09mm	20	40	50	24	690
1525-1000	15-1000mm/0,6-40"	30-1000mm/1,2-40"	±0,12mm	30	60	70	31	1255
1525-1500	15-1500mm/0,6-60"	30-1500mm/1,2-60"	±0,15mm	30	60	70	31	1760

MEKANİK KUMPASLAR



- Hassasiyet: 0,02mm
- Hassas ayarlı
- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplamalı okuma yüzeyi

1217-3001



Kod	Ölçüm aralığı	Doğruluk
1217-3001	0-300mm	$\pm 0,03\text{mm}$

MEKANİK KUMPAS (MONO BLOK)

- Hassas ayarlı
- Paslanmaz çelikten yapılmıştır
- Parlak krom kaplamalı okuma yüzeyi



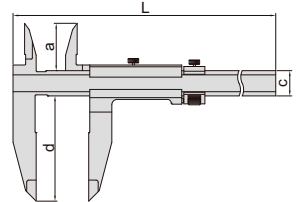
Hassasiyet: 0,05mm/1/128" (mm)

Kod	Ölçüm aralığı	Doğruluk	a	c	d	L
1210-614	0-600mm/0-24"	±0,08mm	45	24	100	770
1210-1024	0-1000mm/0-40"	±0,12mm	60	31	150	1230

Hassasiyet: 0,02mm (mm)

Kod	Ölçüm aralığı	Doğruluk	a	c	d	L
1210-611	0-600mm	±0,05mm	45	24	100	770
1210-1021	0-1000mm	±0,08mm	60	31	150	1230

1210-611



- Aynı ya da farklı seviyelerde delik merkez mesafesi ölçer
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: sıfırlama, on/off, mm/inç, ön ayar (+,-)
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil, bilgi çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)



VIDEO

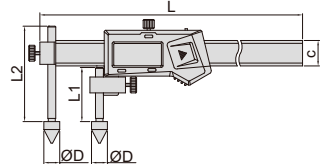
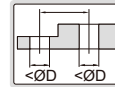
DİJİTAL MERKEZLEME KUMPASLARI



(mm)

1192-150A

Kod	Ölçüm aralığı	Doğruluk	c	ØD	L1	L2	L
1192-150A	10-150mm/0,4-6"	±0,05mm	16	10	32	65	236
1192-200A	10-200mm/0,4-8"	±0,07mm	16	10	32	65	286
1192-300A	10-300mm /0,4-12"	±0,09mm	16	10	32	65	396
1192-500A	20-500mm/0,8-20"	±0,09mm	24	20	48	88	686
1192-1000A	30-1000mm/1,2-40"	±0,12mm	31	30	48	88	1242
1192-1500A	30-1500mm/1,2-60"	±0,15mm	31	30	48	88	1745



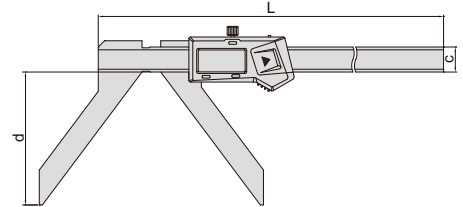
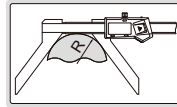
DİJİTAL YAY YARIÇAP KUMPASI

BİLGİ
ÇIKIŞI

- Yay yarıçapları ölçülür
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil
- Bilgi Çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)



1189-150B



Kod	Ölçüm aralığı (R)	Doğruluk	L	c	d
1189-150B	5-150mm/0,2-6"	±0,05mm	263	16	65
1189-200B	5-200mm/0,2-8"	±0,07mm	313	16	85

DİJİTAL MERKEZLEME KUMPASI

BİLGİ
ÇIKIŞI

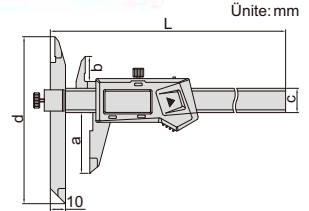
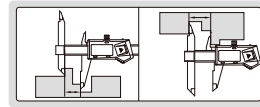
- Sol ağız, bölüm ölçümünü gerçekleştirmek için yukarı aşağı kayar
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil
- Bilgi Çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)



1186-150A

(mm)

Kod	Ölçüm aralığı	Doğruluk	L	a	b	c	d
1186-150A	0-150mm/0-6"	±0,04mm	239	40	16,5	17	110
1186-200A	0-200mm/0-8"	±0,04mm	289	50	19,5	17	120
1186-300A	0-300mm/0-12"	±0,05mm	389	60	20,5	17	130



- Oyuk ve aralık içi duvar kalınlığı ölçülür
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil
- Bilgi Çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: derinlik sabitleme (kod **6143**), bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)

Kod	Ölçüm aralığı	Doğruluk
1185-150A	0-150mm/0-6"	±0,04mm

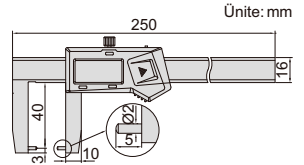
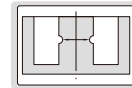
DİJİTAL DIŞ KANAL KUMPASI (İNCE UÇLU)



derinlik sabitleme
6143 (opsiyonel)



1185-150A



Ünite: mm

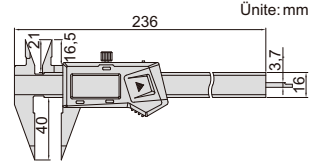
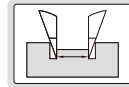
DİJİTAL SİVRİ ÇENELİ KUMPASLAR

BİLGİ
ÇIKIŞI

- Sivri uçlar kanal ve boşluklara sığabilir
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: sıfırlama, on/off, mm/inç
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil, bilgi çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)



1183-150A

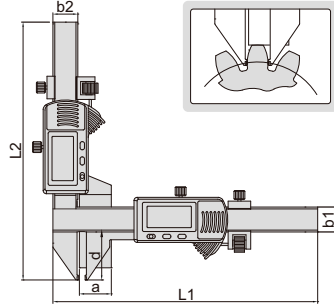


Kod	Ölçüm aralığı	Doğruluk
1183-150A	0-150mm/0-6"	±0,03mm

DİJİTAL MODÜL KUMPASI

DİKKAT: DATA
ÇIKIŞI YOKTUR

- Hassasiyet: 0,01mm/0,0005"
- Karbür ağızlı
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapanma ve dijital üniteyi hareket ettirerek açma,
- CR2032 Lityum Pil
- Paslanmaz çelikten yapılmıştır



(mm)

Kod	Ölçüm aralığı	Doğruluk	L1	L2	a	b1	b2	d
1181-M25A	M1-25mm	±0,04mm	170	165,5	21	16	16	30,5
1181-M50A	M5-50mm	±0,04mm	220	190	50,5	16	16	55



1181-M25A

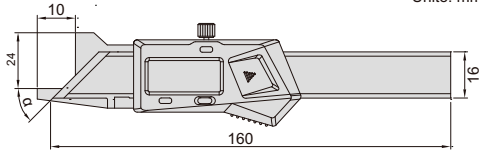
DİJİTAL PAH ÖLÇÜM KUMPASI

- 30°/45°/60° pah ölçer
- Çözünürlük: 0,01mm/0,0005"
- Tuşlar: aç/kapa; ayar; mm/inch; ön ayar (+; -)
- Otomatik kapatma; dijital üniteyi hareket ettirerek açma
- CR2032 Pil
- Bilgi çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)

Kod	Ölçüm aralığı	Doğruluk	Pah (α)
1180-6	0-10mm/0-0,39"	$\pm 0,06\text{mm}$	45°
1180-63	0-10mm/0-0,39"	$\pm 0,06\text{mm}$	30°
1180-66	0-10mm/0-0,39"	$\pm 0,06\text{mm}$	60°



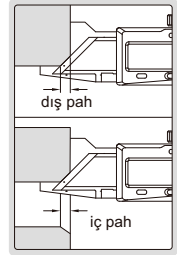
1180-6



Ünite: mm

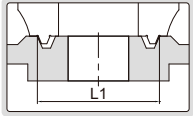
BİLGİ
ÇIKIŞI

pah ölçer

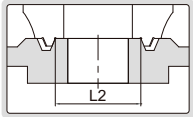


- Flanştaki segman yuvası ölçülür
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç, bilgi sıfırlama
- CR2032 Lityum Pil
- Bilgi Çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod 7306-20, 7302-SPC5A/SPC5B,
7305-SPC2A, 7305-A01/A02)

RTJ segman yuvası
dış çap ölçümü



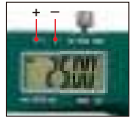
RTJ segman yuvası
iç çap ölçümü



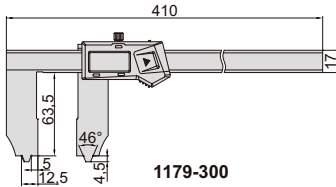
1179-300

1179-300

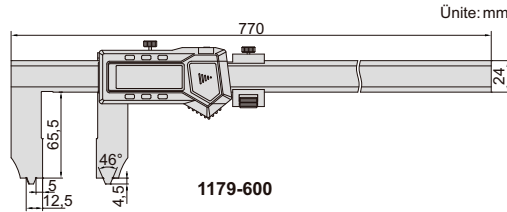
önarar tuşu



1179-600



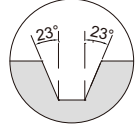
1179-300



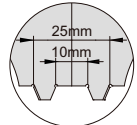
1179-600

Ünite: mm

23° açılı RTJ segman
yuvalarında kullanılabilir



10mm ve 25mm,
okumaya eklenebilir



Kod	Ölçüm aralığı (RTJ segman yuvası iç çapı)	Ölçüm aralığı (RTJ segman yuvası dış çapı)	RTJ segman yuvası açısı	Doğruluk
1179-300	10-300mm/0,4-12"	25-300mm/1-12"	23°	±0,06mm
1179-600	10-600mm/0,4-24"	25-600mm/1-24"	23°	±0,07mm

DİJİTAL İÇ KANAL KUMPASI

BİLGİ
ÇIKIŞI

- Kanal çapı ölçülür
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, ayar, mm/inç, ön ayar (+, -)
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil
- Bilgi Çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: derinlik sabitleme (kod **6143**), bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)

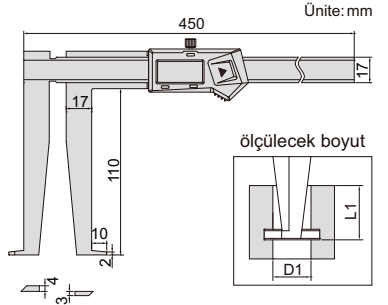
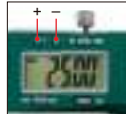


1178-300

derinlik sabitleme
6143 (opsiyonel)



önayar tuşu



(mm)

D1	L1
Ø25	<50
Ø26	<60
Ø27~300	<110



VIDEO

Kod	Ölçüm aralığı	Doğruluk
1178-300	25-300mm/1,18-12"	±0,05mm



VIDEO

DİJİTAL ARKA AĞIZLI MERKEZLEME KUMPASI

- Aynı ya da farklı seviyelerde delik merkez mesafesi ölçer
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: sıfırlama, on/off, mm/inç, ön ayar (+,-)
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil
- Bilgi Çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)

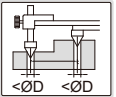
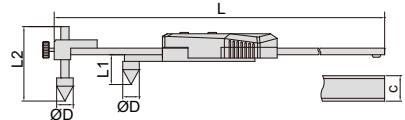
(mm)

Kod	Ölçüm aralığı	Doğruluk	ØD	c	L1	L2	L
1177-200	10-200mm/0,4-8"	±0,10mm	10	16	18	45	310
1177-300	10-300mm/0,4-12"	±0,10mm	10	16	18	45	410
1177-500	20-500mm/0,8-20"	±0,10mm	20	24	26	70	692
1177-1000	30-1000mm/1,2-40"	±0,12mm	30	31	39	70	1242
1177-1500	30-1500mm/1,2-60"	±0,15mm	30	31	39	70	1745



1177-200

arka-ağız

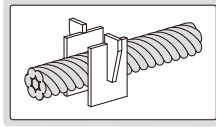


DİJİTAL KUMPAS (GENİŞ ÖLÇÜM AĞIZLI)

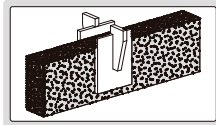
BİLGİ
ÇIKIŞI

- Lastik ve sünger gibi yumuşak parçaların kalınlığı ile tel halat çapı ölçülür
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil
- Bilgi Çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)

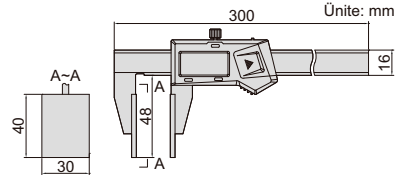
tel halatların çap ölçümü



lastik, sünger vs,
kalınlığı ölçümü



1172-200



Kod	Ölçüm aralığı	Doğruluk
1172-200	0-200mm/0-8"	±0,07mm

DİJİTAL KUMPASLAR

BİLGİ
ÇIKIŞI

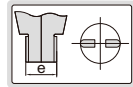
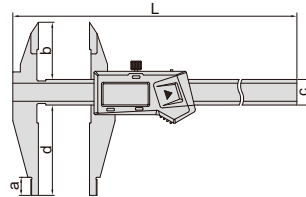
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital üniteyi hareket ettirerek açma
- CR2032 Lityum Pil
- Bilgi Çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)

(mm)

Kod	Ölçüm aralığı	Doğruluk	a	b	c	d	e	L
1171-200	0-200mm/0-8"	±0,03mm	12	38	17	60	10	320
1171-306	0-300mm/0-12"	±0,04mm	12	38	17	60	10	420
1171-300	0-300mm/0-12"	±0,04mm	12	38	17	90	10	420



1171-300



DİJİTAL KUMPASLAR

BİLGİ
ÇIKIŞI

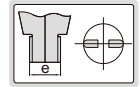
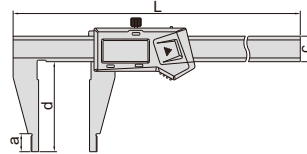
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital üniteyi hareket ettirerek açma
- CR2032 Lityum Pil
- Bilgi Çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)



1170-300

(mm)

Kod	Ölçüm aralığı	Doğruluk	a	c	d	e	L
1170-200	0-200mm/0-8"	±0,03mm	12	17	60	10	320
1170-306	0-300mm/0-12"	±0,04mm	12	17	60	10	420
1170-300	0-300mm/0-12"	±0,04mm	12	17	90	10	420



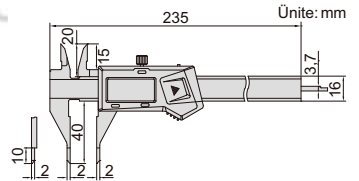
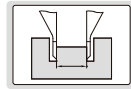
DİJİTAL İNCE UÇLU KUMPASLAR

BİLGİ
ÇIKIŞI

- İnce uçlu ağızlar küçük kanal ve aralıklara girebilir
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil, bilgi çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)



1169-150



Kod	Ölçüm aralığı	Doğruluk
1169-150	0-150mm/0-6"	±0,03mm

BİLGİ ÇIKIŞI

İLGİLİ ÜRÜN: FREN DİSK
MİKROMETRESİ (KOD 3288-, 3588-)

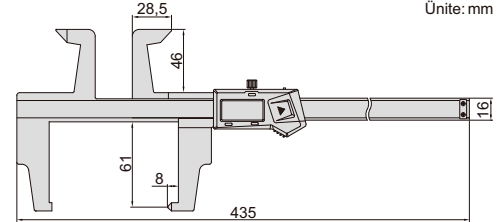
- İç ve dış fren tambur çapı ölçülür
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil
- Bilgi Çıkış
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)



1168-300A



Kod	Ölçüm aralığı	Doğruluk
1168-300A	0-300mm/0-12"	±0,07mm



BİLGİ
ÇIKIŞI

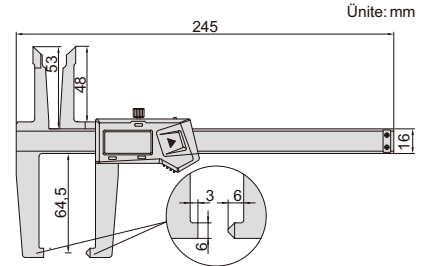
İLGİLİ ÜRÜN: FREN DİSK
MİKROMETRESİ (KOD 3288-, 3588-)

DİJİTAL DİSK FREN BALATA KUMPASI

- Fren disk kalınlığı ve balata aşınması ölçülür
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil
- Bilgi Çıkış
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)



1167-150A



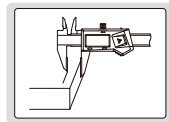
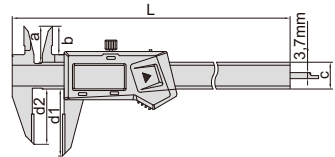
Kod	Ölçüm aralığı	Doğruluk
1167-150A	0-150mm/0-6"	±0,07mm

DİJİTAL İŞARETLEME KUMPASI

- Karbür ağızlı çeneler parçanın işaretlenebilmesini sağlar
- Çözünürlük: 0,01mm/0,0005"
- Tuşlar: sıfırlama, on/off, inç/mm
- Otomatik kapanma, göstergenin hareket ettirilmesi ile açılır
- Pil CR2032, bilgi çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**)



1166-150A



(mm)

Kod	Ölçüm aralığı	Doğruluk	L	a	b	c	d1	d2
1166-150A	0-150mm/0-6"	±0,03mm	236	21	16,5	16	40	33
1166-200A	0-200mm/0-8"	±0,03mm	286	24	19,5	16	50	43
1166-300A	0-300mm/0-12"	±0,04mm	400	25	20,5	17	60	53

BİLGİ ÇIKIŞI

İLGİLİ ÜRÜN: KABLO KLİPS MİKROMETRESİ
(KOD 3266-25BA, 3566-25BA)

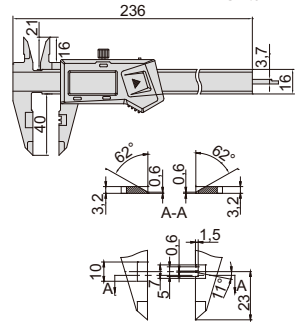
- Kablo klips yüksekliği ölçülür
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç, bilgi sıfırlama
- Otomatik kapanma, göstergenin hareket ettirilmesi ile açılır
- Pil CR2032, bilgi çıkışı
- DIN862 Standardına uygundur
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)

1165-150A



DİJİTAL KABLO KLİPS KUMPASI

Ünite: mm



DİJİTAL FREN DİSK KUMPASI

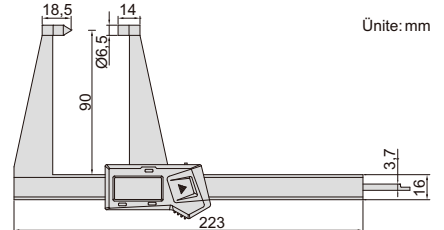
İLGİLİ ÜRÜN: FREN DİSK
MİKROMETRESİ (KOD 3288-, 3588-)

BİLGİ
ÇIKIŞI

- Fren disk kalınlığı ölçülür
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil
- Bilgi Çıkış
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)



1162-125A



Kod	Ölçüm aralığı	Doğruluk
1162-125A	0-125mm/0-5"	±0,05mm

DİJİTAL KUMPASLAR

BİLGİ
ÇIKIŞI

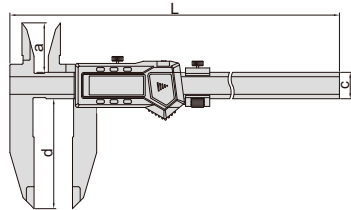
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç, ABS, bilgi sıfırlama
- CR2032 Lityum Pil
- Bilgi Çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)

(mm)

Kod	Ölçüm aralığı	Doğruluk	a	c	d	L
1135-451	0-450mm/0-18"	±0,05mm	45	24	100	625
1135-601	0-600mm/0-24"	±0,05mm	45	24	100	770
1135-1002	0-1000mm/0-40"	±0,08mm	60	31	150	1220



1135-601



- Solaklar için tasarlanmıştır
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapatma, dijital üniteyi hareket ettirerek açma
- CR2032 Lityum Pil, bilgi çıkışı
- DIN862 Standardına uygundur
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)

(mm)

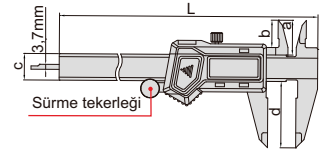
Kod	Ölçüm aralığı	Doğruluk	Sürme tekerleği	L	a	b	c	d
1130-150 *	0-150mm/0-6"	±0,03mm	dahil	236	21	16	16	40
1130-200 *	0-200mm/0-8"	±0,03mm	dahil	286	24	19	16	50
1130-300 *	0-300mm/0-12"	±0,03mm	dahil	400	25	20,5	16	60
1130-150W *	0-150mm/0-6"	±0,03mm	hariç	236	21	16	16	40
1130-200W *	0-200mm/0-8"	±0,03mm	hariç	286	24	19	16	50
1130-300W *	0-300mm/0-12"	±0,03mm	hariç	400	25	20,5	16	60

* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir

SOL EL DİJİTAL KUMPASLAR



1130-150



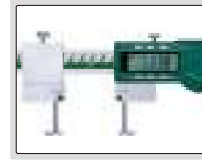
UNİVERSAL KUMPASLAR KOD 1125-600

BİLGİ
ÇIKIŞI

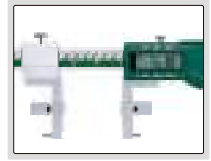


VIDEO

ayak ile çalışır

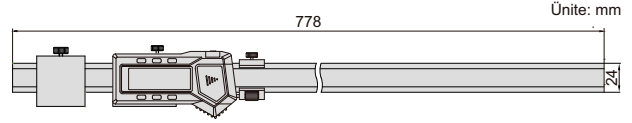


ölçüm ağız ile çalışır



1125-600

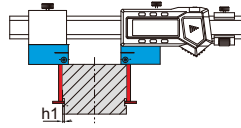
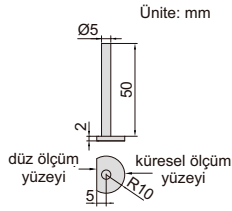
- Tuşlar: aç/kapa, ayar, mm/inç, ABS, ön ayar (+, -)
- Otomatik kapatma, dijital göstergenin hareket ettirilmesi ile açılır
- CR2032 Lityum Pil
- Bilgi Çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)



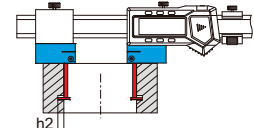
Kod	Ölçüm aralığı	Hassasiyet	Doğruluk
1125-600	0-600mm/0-24"	0,01mm/0,0005"	±0,05mm

* Farklı uçlara göre ölçüm aralığı değişir

Yarı disk uç (dahil)

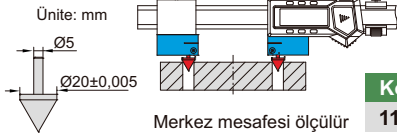


Düz ölçüm yüzü ile dış kanal çapı ölçülür (derinlik $h1 \leq 2,5\text{mm}$)



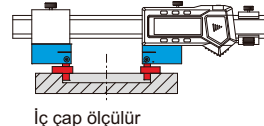
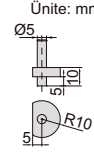
Küresel ölçüm yüzü ile iç kanal çapı ölçülür (derinlik $h2 \leq 7,5\text{mm}$)

Konik uçlar (dahil)



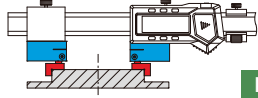
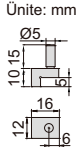
Kod
1125-T101

Yuvarlak destek uçları (opsiyonel)



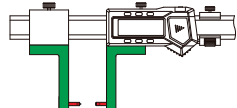
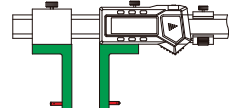
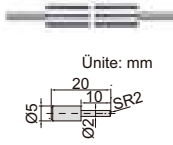
Kod
1125-T102

Düz destek uçları (opsiyonel)

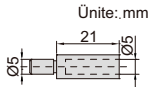


Kod
1125-T103

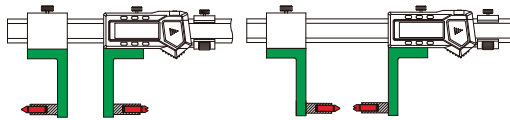
Küresel uçlar (dahil)



Uç kılıfı (opsiyonel)

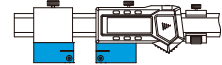
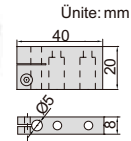


Kod
1125-T104

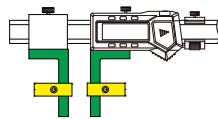
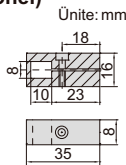


Çok fonksiyonlu uçlar, küre uçlar ve vida diş uçlarıyla çalışır

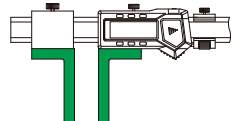
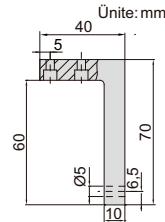
Ayaklar (dahil)



Derinlik sabitleme (opsiyonel)



Ölçüm ağızları (dahil)



Çok fonksiyonlu uçlar 7392 (opsiyonel, sonraki sayfa)



Küresel uçlar 7391 (opsiyonel, sonraki sayfa)



Vida diş uçları 7381, 7321 (opsiyonel, sonraki sayfa)



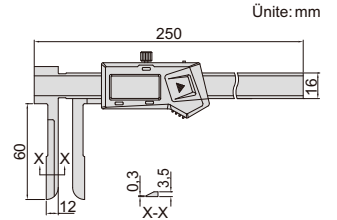
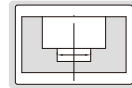
DİJİTAL BIÇAK AĞIZLI KUMPAS

BİLGİ
ÇIKIŞI

- Derin deliklerin çapını ölçer
- Çözünürlük: 0,01mm/0,0005"
- Tuşlar: sıfırlama, on/off, mm/inç
- Otomatik kapanma, göstergenin hareket ettirilmesi ile açılır
- Pil CR2032
- USB bilgi çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)



1123-150A



Kod	Ölçüm aralığı	Doğruluk
1123-150A	15-150mm/0,6-6"	±0,05mm

BİLGİ ÇIKIŞI

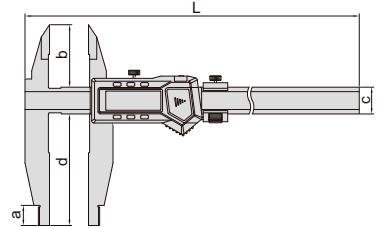
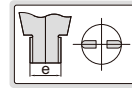
- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç, ABS, bilgi sıfırlama
- CR2032 Lityum Pil, bilgi çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)



1117-501

(mm)

Kod	Ölçüm aralığı	Doğruluk	a	b	c	d	e	L
1117-301	0-300mm/0-12"	±0,05mm	18	56	24	100	20	420
1117-501	0-500mm/0-20"	±0,05mm	18	56	24	100	20	675
1117-502	0-500mm/0-20"	±0,06mm	18	56	24	150	20	675
1117-601	0-600mm/0-24"	±0,05mm	18	56	24	100	20	770
1117-802	0-800mm/0-32"	±0,07mm	24	67	31	150	20	1025
1117-1002	0-1000mm/0-40"	±0,08mm	24	67	31	150	20	1220



DIŞ ÇAP MİKROMETRE

**KALİBRASYON
SERTİFİKASI**
DKD ONAYLI



3203-25A



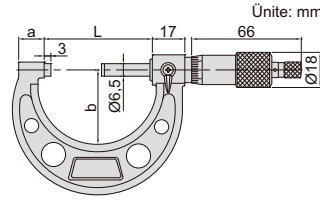
3203-50A



3203-1004A



3203-3006A



- Hassasiyet: metrik 0,01mm
imperial 0001"
- Karbür ölçüm ağızları
- DIN863-1 standardına uygundur
- Sıfırlama mastarları ile tedarik edilir (0-25mm ve 0-1" hariç)

Metrik (cırcırlı model) (mm)

Kod	Ölçüm aralığı	Doğruluk	L	a	b
3203-25A *	0-25mm	±2µm	32	9	28
3203-50A *	25-50mm	±2µm	57	14	38
3203-75A *	50-75mm	±2µm	82	15	49
3203-100A *	75-100mm	±3µm	107	15	60
3203-125A	100-125mm	±3µm	133	16,5	73
3203-150A	125-150mm	±3µm	158	16,5	85
3203-175A	150-175mm	±4µm	183	19,4	104
3203-200A	175-200mm	±4µm	209	19,4	117
3203-225A	200-225mm	±4µm	234	19,4	130
3203-250A	225-250mm	±5µm	260	19,4	142
3203-275A	250-275mm	±5µm	285	19,4	155
3203-300A	275-300mm	±5µm	310	19,4	168

Imperial (cırcırlı model)

Kod	Ölçüm aralığı	Doğruluk	L	a	b
3203-1A *	0-1"	,00016"	1,260"	,354"	1,102"
3203-2A *	1-2"	,00016"	2,244"	,551"	1,496"
3203-3A *	2-3"	,00020"	3,228"	,591"	1,929"
3203-4A *	3-4"	,00020"	4,213"	,591"	2,362"
3203-5A *	4-5"	,00024"	5,236"	,650"	2,874"
3203-6A *	5-6"	,00024"	6,220"	,650"	3,346"
3203-7A	6-7"	,00028"	7,205"	,764"	4,094"
3203-8A	7-8"	,00028"	8,228"	,764"	4,606"
3203-9A	8-9"	,00031"	9,213"	,764"	5,118"
3203-10A	9-10"	,00031"	10,236"	,764"	5,591"
3203-11A	10-11"	,00035"	11,220"	,764"	6,102"
3203-12A	11-12"	,00035"	12,205"	,764"	6,614"

Metrik mikrometre ayarı (cırcırlı model)

Kod	Ölçüm aralığı	Mikrometre dahil	Paketleme
3203-753A *	0-75mm	3203-25A; 3203-50A; 3203-75A	şişme kalıp paket
3203-1004A *	0-100mm	3203-25A; 3203-50A; 3203-75A; 3203-100A	şişme kalıp paket
3203-1506A	0-150mm	3203-25A; 3203-50A; 3203-75A; 3203-100A; 3203-125A; 3203-150A	şişme kalıp paket
3203-3006A	150-300mm	3203-175A; 3203-200A; 3203-225A; 3203-250A; 3203-275A; 3203-300A	alüminyum kutu
3203-3012A	0-300mm	3203-25A; 3203-50A; 3203-75A; 3203-100A; 3203-125A; 3203-150A; 3203-175A; 3203-200A; 3203-225A; 3203-250A; 3203-275A; 3203-300A	alüminyum kutu

Imperial mikrometrik ayarı (cırcırlı model)

Kod	Ölçüm aralığı	Mikrometre dahil	Paketleme
3203-33A *	0-3"	3203-1A; 3203-2A; 3203-3A	şişme kalıp paket
3203-44A *	0-4"	3203-1A; 3203-2A; 3203-3A; 3203-4A	şişme kalıp paket
3203-66A *	0-6"	3203-1A; 3203-2A; 3203-3A; 3203-4A; 3203-5A; 3203-6A	şişme kalıp paket
3203-126A	6-12"	3203-7A; 3203-8A; 3203-9A; 3203-10A; 3203-11A; 3203-12A	alüminyum kutu
3203-1212A	0-12"	3203-1A; 3203-2A; 3203-3A; 3203-4A; 3203-5A; 3203-6A; 3203-7A; 3203-8A; 3203-9A; 3203-10A; 3203-11A; 3203-12A	alüminyum kutu

Imperial (tamburdan cırcırlı model)

Kod	Ölçüm aralığı	Doğruluk	L	a	b
3203-1FA *	0-1"	,00016"	1,260"	,354"	1,102"
3203-2FA *	1-2"	,00016"	2,244"	,551"	1,496"
3203-3FA *	2-3"	,00020"	2,244"	,591"	1,929"

* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir

DIŞ ÇAP MİKROMETRE

**KALİBRASYON
SERTİFİKASI**
DKD ONAYLI



3203-25A



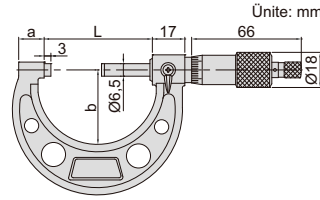
3203-50A



3203-1004A



3203-3006A



- Hassasiyet: metrik 0,01mm
imperial 0001"
- Karbür ölçüm ağızları
- DIN863-1 standardına uygundur
- Sıfırlama mastarları ile tedarik edilir (0-25mm ve 0-1" hariç)

Metrik (cırcırlı model) (mm)

Kod	Ölçüm aralığı	Doğruluk	L	a	b
3203-25A *	0-25mm	±2µm	32	9	28
3203-50A *	25-50mm	±2µm	57	14	38
3203-75A *	50-75mm	±2µm	82	15	49
3203-100A *	75-100mm	±3µm	107	15	60
3203-125A	100-125mm	±3µm	133	16,5	73
3203-150A	125-150mm	±3µm	158	16,5	85
3203-175A	150-175mm	±4µm	183	19,4	104
3203-200A	175-200mm	±4µm	209	19,4	117
3203-225A	200-225mm	±4µm	234	19,4	130
3203-250A	225-250mm	±5µm	260	19,4	142
3203-275A	250-275mm	±5µm	285	19,4	155
3203-300A	275-300mm	±5µm	310	19,4	168

Imperial (cırcırlı model)

Kod	Ölçüm aralığı	Doğruluk	L	a	b
3203-1A *	0-1"	,00016"	1,260"	,354"	1,102"
3203-2A *	1-2"	,00016"	2,244"	,551"	1,496"
3203-3A *	2-3"	,00020"	3,228"	,591"	1,929"
3203-4A *	3-4"	,00020"	4,213"	,591"	2,362"
3203-5A *	4-5"	,00024"	5,236"	,650"	2,874"
3203-6A *	5-6"	,00024"	6,220"	,650"	3,346"
3203-7A	6-7"	,00028"	7,205"	,764"	4,094"
3203-8A	7-8"	,00028"	8,228"	,764"	4,606"
3203-9A	8-9"	,00031"	9,213"	,764"	5,118"
3203-10A	9-10"	,00031"	10,236"	,764"	5,591"
3203-11A	10-11"	,00035"	11,220"	,764"	6,102"
3203-12A	11-12"	,00035"	12,205"	,764"	6,614"

Metrik mikrometre ayarı (cırcırlı model)

Kod	Ölçüm aralığı	Mikrometre dahil	Paketleme
3203-753A *	0-75mm	3203-25A; 3203-50A; 3203-75A	şişme kalıp paket
3203-1004A *	0-100mm	3203-25A; 3203-50A; 3203-75A; 3203-100A	şişme kalıp paket
3203-1506A	0-150mm	3203-25A; 3203-50A; 3203-75A; 3203-100A; 3203-125A; 3203-150A	şişme kalıp paket
3203-3006A	150-300mm	3203-175A; 3203-200A; 3203-225A; 3203-250A; 3203-275A; 3203-300A	alüminyum kutu
3203-3012A	0-300mm	3203-25A; 3203-50A; 3203-75A; 3203-100A; 3203-125A; 3203-150A; 3203-175A; 3203-200A; 3203-225A; 3203-250A; 3203-275A; 3203-300A	alüminyum kutu

Imperial mikrometrik ayarı (cırcırlı model)

Kod	Ölçüm aralığı	Mikrometre dahil	Paketleme
3203-33A *	0-3"	3203-1A; 3203-2A; 3203-3A	şişme kalıp paket
3203-44A *	0-4"	3203-1A; 3203-2A; 3203-3A; 3203-4A	şişme kalıp paket
3203-66A *	0-6"	3203-1A; 3203-2A; 3203-3A; 3203-4A; 3203-5A; 3203-6A	şişme kalıp paket
3203-126A	6-12"	3203-7A; 3203-8A; 3203-9A; 3203-10A; 3203-11A; 3203-12A	alüminyum kutu
3203-1212A	0-12"	3203-1A; 3203-2A; 3203-3A; 3203-4A; 3203-5A; 3203-6A; 3203-7A; 3203-8A; 3203-9A; 3203-10A; 3203-11A; 3203-12A	alüminyum kutu

Imperial (tamburdan cırcırlı model)

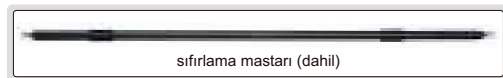
Kod	Ölçüm aralığı	Doğruluk	L	a	b
3203-1FA *	0-1"	,00016"	1,260"	,354"	1,102"
3203-2FA *	1-2"	,00016"	2,244"	,551"	1,496"
3203-3FA *	2-3"	,00020"	2,244"	,591"	1,929"

* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir

DEĞİŞTİRİLEBİLİR UÇLU MEKANİK DİŞ ÇAP MİKROMETRESİ



- Hassasiyet: 0,01mm
- Cırcırlı
- DIN863-3 standardına uygundur
- Karbür ölçüm uçları
- Sıfırlama mastarı ile tedarik edilir



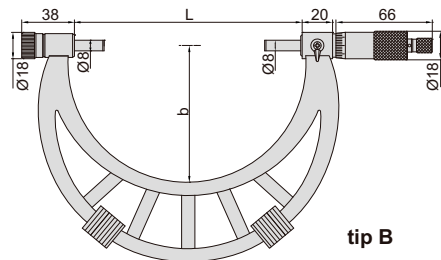
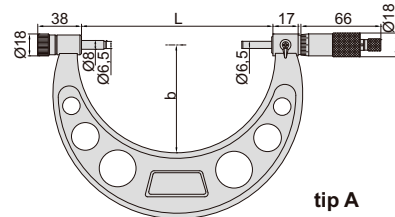
3206-150A

3206-400

(mm)

Kod	Ölçüm aralığı	Tip	Doğruluk	L	b	Sıfırlama mastarı (dahil)
3206-50A	0-50mm	A	4μm	58	35	25
3206-100A	0-100mm	A	5μm	108	57	25, 50, 75
3206-150A	0-150mm	A	6μm	158	82	25, 50, 75, 100, 125
3206-151A	50-150mm	A	6μm	158	82	50, 75, 100, 125
3206-200A	100-200mm	A	7μm	208	114	100, 125, 150, 175
3206-300A	150-300mm	A	9μm	308	165	150, 175, 200, 225, 250, 275
3206-301A	200-300mm	A	9μm	308	165	200, 225, 250, 275
3206-400	300-400mm	B	11μm	409	224	325, 375
3206-500	400-500mm	B	13μm	509	275	425, 475
3206-600	500-600mm	B	14μm	609	321	525, 575
3206-700	600-700mm	B	16μm	709	371	625, 675
3206-800	700-800mm	B	18μm	809	426	725, 775
3206-900	800-900mm	B	20μm	909	476	825, 875
3206-1000	900-1000mm	B	22μm	1009	576	925, 975

Ünite: mm



**DİKKAT: DATA
ÇIKIŞI YOKTUR**

- Çözünürlük: 0,01mm/0,0005"
- Tuşlar: on/off, set, mm/inç, ABS/INC, bilgi çıkışı
- Bilgi çıkışı yok
- LR44 Pil, otomatik kapanma
- Karbür ölçüm uçları
- Tambur
- Küresel uç ile tedarik edilir
- Sıfırlama masterları dahildir (0-25 mm/0-1" hariç)



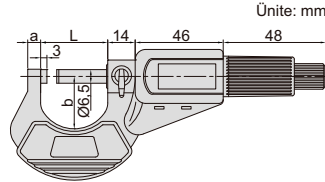
Kod	Ölçüm aralığı	Doğruluk	L	a	b
3109-25A*	0-25mm/0-1"	$\pm 2\mu\text{m}$	32	6	27,5
3109-50A*	25-50mm/1-2"	$\pm 2\mu\text{m}$	57	8	37
3109-75A*	50-75mm/2-3"	$\pm 3\mu\text{m}$	82	8	50
3109-100A*	75-100mm/3-4"	$\pm 3\mu\text{m}$	107	10	61

* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir

DİJİTAL DIŞ ÇAP MİKROMETRE



3109-25A



**KALİBRASYON
SERTİFİKASI**
DKD ONAYLI



DİJİTAL DIŞ ÇAP MİKROMETRE (BİLGİ ÇIKIŞI OLMADAN)

- Çözünürlük: 0,01mm/0,0005"
- IP65 Suya ve Toza Karşı Korumalı
- Tuşlar: on/off, set, mm/inç, ABS/INC, bilgi çıkışı
- Bilgi çıkışı yok
- LR44 Pil, otomatik kapanma
- Karbür ölçüm uçları
- Küresel uç ile tedarik edilir
- Sıfırlama masterları dahildir (0-25 mm/0-1" hariç)



3108-25A

bilgi çıkışı olmadan

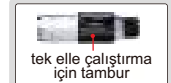
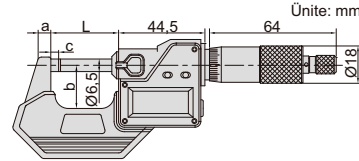


**KALİBRASYON
SERTİFİKASI**
DKD ONAYLI

Cırcırlı model

(mm)

Kod	Ölçüm aralığı	Doğruluk	L	a	b	c
3108-25A*	0-25mm/0-1"	$\pm 2\mu\text{m}$	34,5	6	25	3
3108-50A*	25-50mm/1-2"	$\pm 2\mu\text{m}$	59,5	8	32	3
3108-75A*	50-75mm/2-3"	$\pm 3\mu\text{m}$	84,5	8	44,5	3
3108-100A*	75-100mm/3-4"	$\pm 3\mu\text{m}$	109,5	8	57	3
3108-125A	100-125mm/4-5"	$\pm 3\mu\text{m}$	135	10	70	3
3108-150A	125-150mm/5-6"	$\pm 3\mu\text{m}$	160,5	10	82	3
3108-175A	150-175mm/6-7"	$\pm 4\mu\text{m}$	186	12	94,5	5,5
3108-200A	175-200mm/7-8"	$\pm 4\mu\text{m}$	211,5	12	107	5,5



Tamburdan cırcırlı model

(mm)

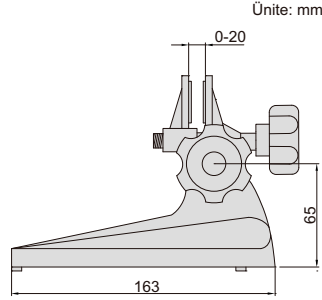
Kod	Ölçüm aralığı	Doğruluk	L	a	b	c
3108-25FA*	0-25mm/0-1"	$\pm 2\mu\text{m}$	34,5	6	25	3

* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir

MİKROMETRE STANDI

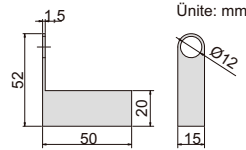
- 100 mm kadar olan mikrometreler için uygundur

Kod
6301



6301

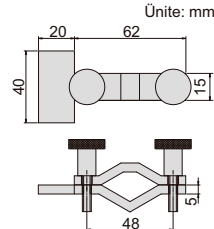
- İç mikrometreler için uygundur



6301-1

Kod	Açıklama	Uygun bir üründür
6301-1	iç mikrometreler için kelepçelidir	3220 serileri için

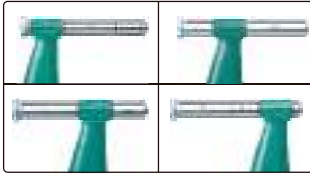
- Üç ayaklı iç mikrometreleri için uygundur



6301-2

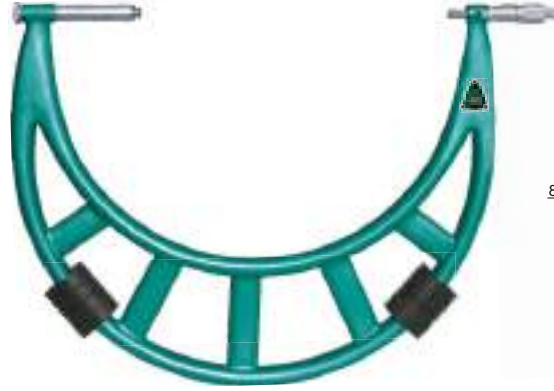
Kod	Açıklama	Uygun bir üründür
6301-2	Üç ayaklı iç mikrometreleri için kelepçelidir	3127 ve 3227 serilerindeki 100 mm kadar olan ürünler için uygundur

UZATILABİLİR UÇLU DIŞ ÇAP MİKROMETRELERİ

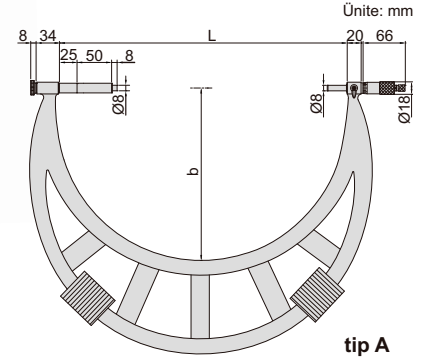


farklı ölçüm aralıkları için
uzatma halkası ayarlanabilir

- Hassasiyet: 0,01mm
- Farklı ölçüm aralıkları için
uzatma halkası ayarlanabilir
- Çırcırlı
- Karbür ölçüm uçları
- Sıfırlama mastarı ile tedarik edilir

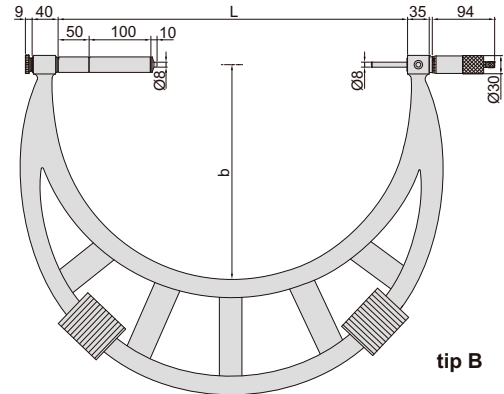


3205-400



(mm)

Kod	Ölçüm aralığı	Tip	Doğruluk	L	b	Sıfırlama mastarı (dahil)
3205-400	300-400mm	A	11µm	410	250	325, 375
3205-500	400-500mm	A	13µm	510	295	425, 475
3205-600	500-600mm	A	14µm	610	345	525, 575
3205-700	600-700mm	A	16µm	710	395	625, 675
3205-800	700-800mm	A	18µm	810	445	725, 775,
3205-900	800-900mm	A	20µm	910	495	825, 875
3205-1000	900-1000mm	A	22µm	1010	545	925, 975
3205-1200	1000-1200mm	B	22µm	1210	645	1050, 1150
3205-1400	1200-1400mm	B	24µm	1410	745	1250, 1350
3205-1600	1400-1600mm	B	28µm	1610	845	1450, 1550
3205-1800	1600-1800mm	B	31µm	1810	945	1650, 1750
3205-2000	1800-2000mm	B	34µm	2010	1045	1850, 1950



DIŞ ÇAP MİKROMETRESİ

- Hassasiyet: 0,01mm
- Karbür ölçüm ağızları
- DIN863-1 standardına uygundur
- Sıfırlama masterları ile tedarik edilir (0-25mm hariç)

**KALİBRASYON
SERTİFİKASI**
DKD ONAYLI

(mm)

Kod	Ölçüm aralığı	Doğruluk	L	a	b
3202-25A*	0-25mm	4µm	32	6	24
3202-50A*	25-50mm	4µm	57	8	32
3202-75A*	50-75mm	5µm	82	8	45
3202-100A*	75-100mm	5µm	107	8	57
3202-125A	100-125mm	6µm	133	8	70
3202-150A	125-150mm	6µm	125	8	82
3202-175A	150-175mm	7µm	183	8	95
3202-200A	175-200mm	7µm	209	8	107

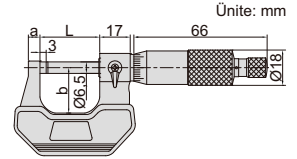


3202-25A

Mikrometre seri

Kod	Ölçüm aralığı	Mikrometre dahil
3202-753A*	0-75mm	3202-25A, 3202-50A, 3202-75A
3202-1004A*	0-100mm	3202-25A, 3202-50A, 3202-75A, 3202-100A
3202-1506A	0-150mm	3202-25A, 3202-50A, 3202-75A, 3202-100A, 3202-125A, 3202-150A

* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir



SAATLİ PASOMETRE

- Silindir ve mil çaplarının Geçer ve Geçmez masterları için
- Taban geri çekme hareketi: 3mm
- Ölçme kuvveti: 6-9N
- Karbür ölçüm ağızları
- Opsiyonel aksesur:
komparatör saati (hassasiyet 0,01 mm)
dijital komparatör (hassasiyet 0,01mm/0,0005")

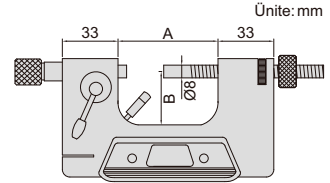
Kod	Ölçüm aralığı	A	B
2184-25W	0-25mm	34mm	18mm
2184-50W	0-50mm	62mm	32mm
2184-100W	50-100mm	112mm	62mm
2184-150W	100-150mm	162mm	85mm
2184-200W	150-200mm	212mm	110mm



dijital komparatör
dahil değildir

2184-50W

DİKKAT: 0,001MM KOMPARATÖR
İÇİN UYGUN DEĞİLDİR



DİJİTAL DIŞ ÇAP MİKROMETRE (BİLGİ ÇIKIŞLI)

BİLGİ
ÇIKIŞI

IP65
SUĞEÇİRMEZ

**KALİBRASYON
SERTİFİKASI**
DKD ONAYLI



bilgi çıkışı



3101-25A

Metrik/inç model (cırcırlı)

(mm)

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk	L	a	b	c
3101-25A*	0-25mm/0-1"	0,001mm/0,00005"	±2µm	34,5	6	25	3
3101-50A*	25-50mm/1-2"	0,001mm/0,00005"	±2µm	59,5	8	32	3
3101-75A*	50-75mm/2-3"	0,001mm/0,00005"	±3µm	84,5	8	44,5	3
3101-100A*	75-100mm/3-4"	0,001mm/0,00005"	±3µm	109,5	8	57	3
3101-125A	100-125mm/4-5"	0,001mm/0,00005"	±3µm	135	10	70	3
3101-150A	125-150mm/5-6"	0,001mm/0,00005"	±3µm	160,5	10	82	3
3101-175A	150-175mm/6-7"	0,001mm/0,00005"	±4µm	186	12	94,5	5,5
3101-200A	175-200mm/7-8"	0,001mm/0,00005"	±4µm	211,5	12	107	5,5
3101-225A	200-225mm/8-9"	0,001mm/0,00005"	±4µm	236	23	129,5	5,5
3101-250A	225-250mm/9-10"	0,001mm/0,00005"	±4µm	261,5	23	142,5	5,5
3101-275A	250-275mm/10-11"	0,001mm/0,0001"	±5µm	287	23	155	5,5
3101-300A	275-300mm/11-12"	0,001mm/0,0001"	±5µm	312,5	23	167,5	5,5

Metrik/inç model (tambur)

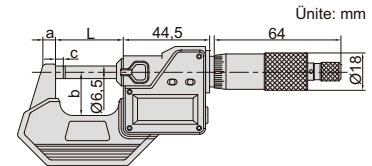
(mm)

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk	L	a	b	c
3101-25FA*	0-25mm/0-1"	0,001mm/0,00005"	±2µm	34,5	6	25	3

Metrik model (cırcırlı)

(mm)

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk	L	a	b	c
3101-25AJ*	0-25mm	0,001mm	±2µm	34,5	6	25	3
3101-50AJ*	25-50mm	0,001mm	±2µm	59,5	8	32	3
3101-75AJ*	50-75mm	0,001mm	±3µm	84,5	8	44,5	3
3101-100AJ*	75-100mm	0,001mm	±3µm	109,5	8	57	3



- IP65 Suya ve Toza Karşı Korumalı
- Tuşlar: on/off, set, mm/inç, ABS/INC, bilgi çıkışı
- Bilgi Çıkışı
- LR44 Pil, otomatik kapanma
- Karbür ölçüm uçları
- Küresel uç ile tedarik edilir
- Sıfırlama mastarları dahildir (0-25 mm/0-1" hariç)
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-30A, 7302-SPC6, 7305-SPC3A, 7305-B01)

* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir

NUMARATÖRLÜ MİKROMETRE

- Numaratör hassasiyeti: 0,01mm
- Tambur hassasiyeti: 0,01mm
- Karbür ölçüm ağızları
- DIN863-1 standardına uygundur
- Cırcırlı
- Sıfırlama mastarları ile tedarik edilir (0-25mm hariç)

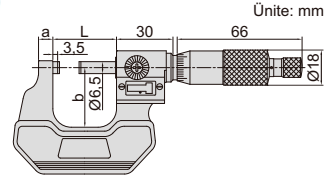


3400-25

**KALİBRASYON
SERTİFİKASI**
DKD ONAYLI

(mm)					
Kod	Range	Doğruluk	L	a	b
3400-25*	0-25mm	4µm	32	6	26
3400-50*	25-50mm	4µm	57	8	32
3400-75*	50-75mm	5µm	82	8	44,5
3400-100*	75-100mm	5µm	107	8	57

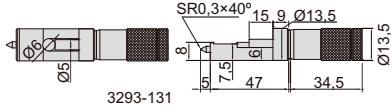
* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir



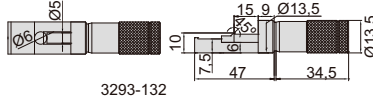
KONSERVE KUTULARI İÇİN MİKROMETRE



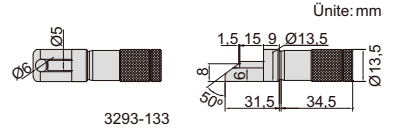
3293-131



3293-132

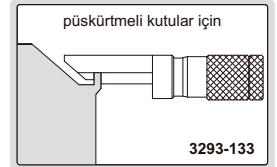
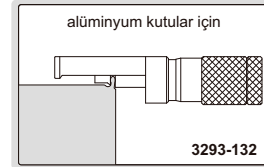
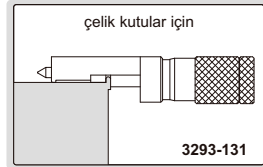


3293-133



- Konserve kutularının genişliği, yüksekliği ve derinliği ölçülür
- Hassasiyet 0,01 mm

Kod	Ölçüm aralığı	Doğruluk
3293-131	0-13mm	4µm
3293-132	0-13mm	4µm
3293-133	0-13mm	4µm



KÜRESEL BORU MİKROMETRESİ

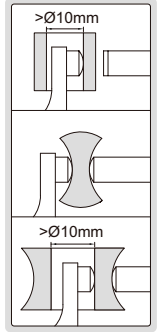
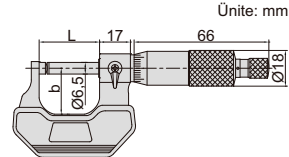
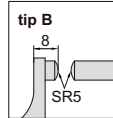
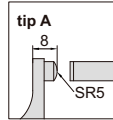
- DIN863-3 Standardına uygundur
- Boruların duvar kalınlığı ölçölür
- Hassasiyet 0,001mm
- Cırcırlı
- Karbür ölçüm ağızları
- Sıfırlama masterları dahildir (0-25mm hariç)

(mm)

Kod	Ölçüm aralığı	Tip	Doğruluk	L	b
3260-25A	0-25mm	A	4µm	32	24
3260-50A	25-50mm	A	4µm	57	32
3260-75A	50-75mm	A	5µm	82	44,5
3260-100A	75-100mm	A	5µm	107	57
3260-25SA	0-25mm	B	4µm	32	24
3260-50SA	25-50mm	B	4µm	57	32
3260-75SA	50-75mm	B	5µm	82	44,5
3260-100SA	75-100mm	B	5µm	107	57



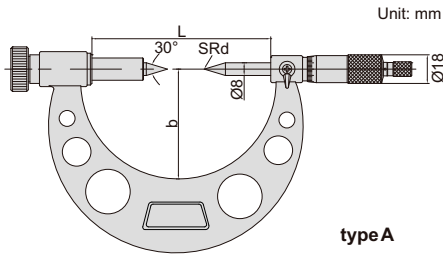
3260-25A



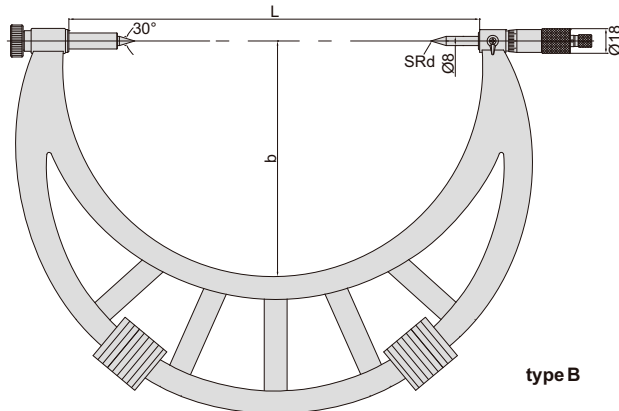
GEAR ROOT DIAMETER MICROMETERS



3297-100



type A



type B



3297-300

- Measure diameter of gear root circle
- Graduation 0.01mm
- Ratchet stop
- Meet DIN863-3
- Carbide measuring faces
- Supplied with setting standards

(mm)						
Code	Range	Type	Accuracy	L	b	SRd
3297-100	5-100mm	A	5µm	137	72	0.4
3297-200	100-200mm	A	7µm	237	129	0.5
3297-300	200-300mm	B	9µm	414	225	0.7
3297-400	300-400mm	B	11µm	514	275	0.7
3297-500	400-500mm	B	13µm	614	325	0.7
3297-600	500-600mm	B	15µm	714	375	0.7
3297-700	600-700mm	B	16µm	814	425	0.7
3297-800	700-800mm	B	18µm	914	475	0.7
3297-900	800-900mm	B	20µm	1014	525	0.7

HIGH PRECISION DIGITAL DISK MICROMETERS/SNAP GAGES

ONE TURN OF SLEEVE MAKES 5MM SPINDLE FEED,
 PRESS THE FORK, THE SPINDLE RETRACTS 3MM

DATA
 OUTPUT

IP65
 WATERPROOF

ABSOLUTE ENCODER, THE ORIGINAL
 DATA REMAINS AFTER POWER OFF

MEASUREMENT ACCURACY IS NOT
 AFFECTED BY THE USE OF SLEEVE

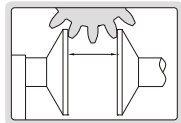
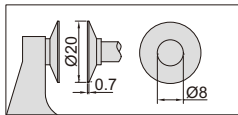
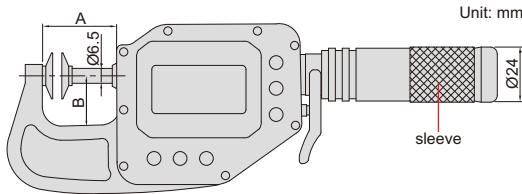
ATTENTION: RECHARGEABLE BATTERY,
 FOR 24 HOURS CONTINUOUS WORKING

NON-ROTATING
 SPINDLE



3353-25

- Measure root tangent length of gear
- Absolute encoder, the original data remains after power off
- Adjustable resolution: 0.0002mm/0.00001"
0.001mm/0.00005"
0.01mm/0.0005"
- One turn of sleeve makes 5mm spindle feed
- Measurement accuracy is not affected by the use of sleeve
- Press the fork, the spindle retracts 3mm
- Linear ball bearings for ten million times use
- Carbide spindle and anvil
- Measuring force 7-10N
Customizable measuring force range 2-12N
Attention: small measuring force will reduce the dustproof and waterproof level
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, zero, mm/inch, adjust resolution
- Supplied with gage blocks for zero setting
- Power: rechargeable battery, for 24 hours continuous working



With data interface

Optional accessory:

wireless transmitter, code 7315-3350

data output cable (keyboard format), code 7302-3350

Code	Range	Accuracy	Repeatability	Parallelism	A	B
3353-25 *	0-25mm/0-1"	4μm	1μm	4μm	38mm	24mm
3353-50 *	25-50mm/1-2"	4μm	1μm	4μm	63mm	25mm
3353-75 *	50-75mm/2-3"	5μm	1μm	5μm	88mm	42mm
3353-100 *	75-100mm/3-3.95"	5μm	1μm	5μm	113mm	56mm
3353-125 *	100-125mm/4-5"	6μm	2μm	6μm	128mm	62.5mm
3353-150 *	125-150mm/5-6"	6μm	2μm	6μm	153mm	75mm

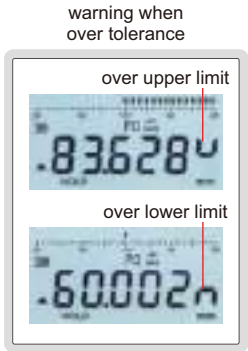
Built-in wireless

Optional accessory:

wireless receiver (keyboard format, connect up to 15 digital indicators), code 2134-R1

wireless receiver (serial port format, connect up to 15 digital indicators), code 2134-R2

Code	Range	Accuracy	Repeatability	Parallelism	A	B
3353-25WL *	0-25mm/0-1"	4μm	1μm	4μm	38mm	24mm
3353-50WL *	25-50mm/1-2"	4μm	1μm	4μm	63mm	25mm
3353-75WL *	50-75mm/2-3"	5μm	1μm	5μm	88mm	42mm
3353-100WL *	75-100mm/3-3.95"	5μm	1μm	5μm	113mm	56mm
3353-125WL *	100-125mm/4-5"	6μm	2μm	6μm	128mm	62.5mm
3353-150WL *	125-150mm/5-6"	6μm	2μm	6μm	153mm	75mm



wireless receiver
 2134-R1, 2134-R2 (optional)



* Supplied with manufacturer inspection certificate

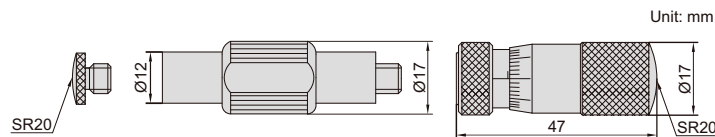
TUBULAR INSIDE MICROMETERS

INSIZE PLUS



- Micrometer head: 50-75mm
- Graduation: 0.01mm
- Carbide measuring faces

3684-100



Code	Range	Accuracy	Travel of micrometer head	Extension rods
3684-75	50-75mm	5µm	25mm	-
3684-100	50-100mm	5µm	25mm	25mm
3684-150	50-150mm	6µm	25mm	25mm, 50mm
3684-250	50-250mm	8µm	25mm	25mm, 50mm, 100mm
3684-300	50-300mm	9µm	25mm	25mm, 50mm (2 pcs), 100mm
3684-350	50-350mm	10µm	25mm	25mm, 50mm, 100mm (2 pcs)
3684-450	50-450mm	10µm	25mm	25mm, 50mm, 100mm, 200mm
3684-650	50-650mm	12µm	25mm	25mm, 50mm, 100mm, 200mm (2 pcs)
3684-850	50-850mm	15µm	25mm	25mm, 50mm, 100mm, 200mm, 400mm
3684-1250	50-1250mm	20µm	25mm	25mm, 50mm, 100mm, 200mm, 400mm (2 pcs)
3684-1450	50-1450mm	22µm	25mm	25mm, 50mm, 100mm, 200mm, 400mm, 600mm

MICROMETER STAND

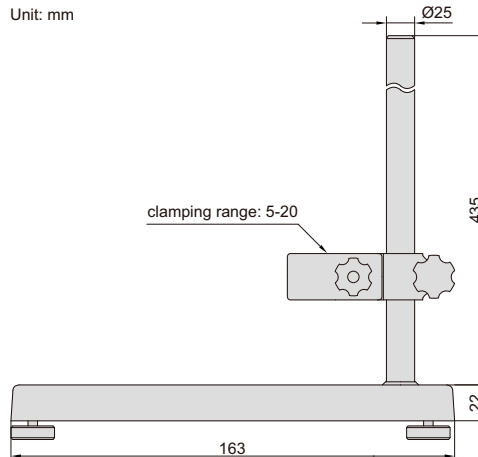
- Suitable for 100-300mm outside micrometers (except **3675** series)

Code

6302



Unit: mm



6302

POINT MICROMETERS

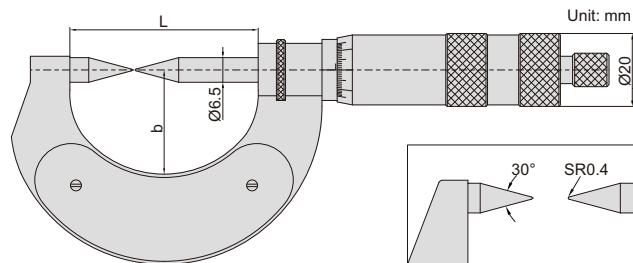
INSIZE PLUS

ATTENTION: SETTING
STANDARDS ARE NOT INCLUDED

INSPECTION
CERTIFICATE



3659-25A



- Measure the web thickness of drills, small grooves and keyways
- Graduation: 0.01mm
- Ratchet stop
- Carbide tips
- Optional accessory: setting standards (code 7386)

(mm)

Code	Range	Accuracy	L	b
3659-25A*	0-25mm	4μm	62	34
3659-50A*	25-50mm	4μm	87	46
3659-75A*	50-75mm	5μm	112	60
3659-100A*	75-100mm	5μm	139	72
3659-125A*	100-125mm	6μm	164	85
3659-150A*	125-150mm	6μm	190	97
3659-175A*	150-175mm	7μm	215	110
3659-200A*	175-200mm	7μm	240	122
3659-225A*	200-225mm	8μm	264	135
3659-250A*	225-250mm	8μm	290	148

* Supplied with manufacturer inspection certificate

OUTSIDE MICROMETERS WITH INTERCHANGEABLE ANVILS

INSIZE PLUS

QUICK MEASUREMENT
ONE TURN OF SLEEVE OR RATCHET
STOP MAKES 1MM SPINDLE FEED

ATTENTION: SETTING
STANDARDS ARE NOT INCLUDED

LIGHT
WEIGHT



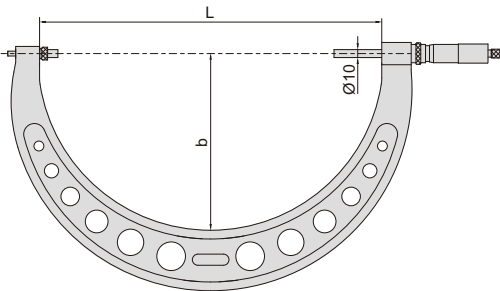
interchangeable anvil (included)
for different measuring ranges



3675-300

- Graduation 0.01mm
- Ratchet stop
- Meet DIN863-3
- Carbide measuring faces
- Light weight
- Optional accessory: setting standards (code **7386**)

Unit: mm



(mm)

Code	Range	Accuracy	L	b	Weight
3675-200	100-200mm	6µm	240	122	1.2kg
3675-300	200-300mm	6µm	325	165	1.5kg
3675-400	300-400mm	7µm	430	220	1.9kg
3675-500	400-500mm	8µm	530	273	2.4kg
3675-600	500-600mm	9µm	630	323	3.1kg
3675-700	600-700mm	9µm	730	378	3.8kg
3675-800	700-800mm	9µm	830	423	4.2kg
3675-900	800-900mm	10µm	930	473	5kg
3675-1000	900-1000mm	10µm	1030	520	6.2kg
3675-1100	1000-1100mm	11µm	1135	585	7.6kg
3675-1200	1100-1200mm	11µm	1230	635	8.6kg
3675-1300	1200-1300mm	12µm	1335	685	9.7kg
3675-1400	1300-1400mm	12µm	1430	735	11.3kg
3675-1500	1400-1500mm	13µm	1530	780	12.5kg
3675-1600	1500-1600mm	18µm	1660	840	13.6kg
3675-1700	1600-1700mm	19µm	1765	890	14.9kg
3675-1800	1700-1800mm	20µm	1870	940	16.2kg
3675-1900	1800-1900mm	21µm	1970	1000	17.5kg
3675-2000	1900-2000mm	22µm	2075	1055	18.8kg

DISK MICROMETERS

←INSIZE→PLUS

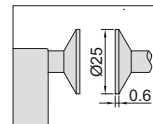
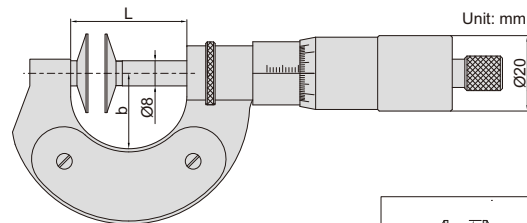
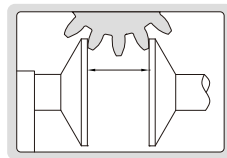
ATTENTION: SETTING
STANDARDS ARE NOT INCLUDED

- Graduation: 0.01mm
- Ratchet stop
- One turn of sleeve makes 0.5mm spindle feed
- Optional accessory: setting standards (code **7386**)



3676-25

(mm)				
Code	Range	Accuracy	L	b
3676-25	0-25mm	4μm	37	24
3676-50	25-50mm	4μm	62	34
3676-75	50-75mm	5μm	87	46
3676-100	75-100mm	5μm	112	60
3676-125	100-125mm	6μm	139	72
3676-150	125-150mm	6μm	164	85
3676-175	150-175mm	7μm	190	97
3676-200	175-200mm	7μm	215	110
3676-225	200-225mm	8μm	240	122
3676-250	225-250mm	8μm	264	135
3676-275	250-275mm	9μm	290	148
3676-300	275-300mm	9μm	315	160



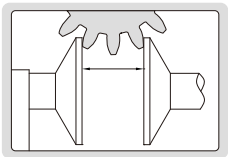
LARGE RANGE DISK MICROMETERS

INSIZE^{PLUS}

ATTENTION: SETTING
STANDARDS ARE NOT INCLUDED

LIGHT
WEIGHT

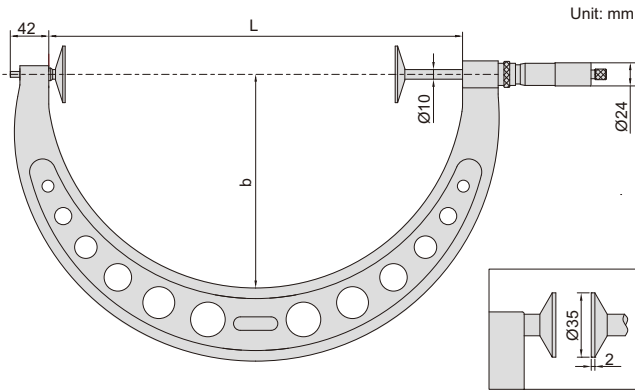
- Graduation: 0.01mm
- Ratchet stop
- Quick measurement, one turn of sleeve makes 1mm spindle feed
- Light weight
- Optional accessory: setting standards (code **7386**)



(mm)

Code	Range	Accuracy	L	b	Weight
3677-350	300-350mm	8μm	370	190	1.65kg
3677-400	350-400mm	8μm	430	220	1.95kg
3677-450	400-450mm	9μm	475	250	2.30kg
3677-500	450-500mm	9μm	530	273	2.45kg
3677-550	500-550mm	10μm	570	291	2.55kg
3677-600	550-600mm	10μm	630	323	3.15kg
3677-650	600-650mm	10μm	675	351	3.45kg
3677-700	650-700mm	10μm	730	378	3.85kg
3677-750	700-750mm	10μm	785	401	4.05kg
3677-800	750-800mm	10μm	830	423	4.25kg
3677-850	800-850mm	11μm	885	440	4.45kg
3677-900	850-900mm	11μm	930	473	5.05kg
3677-950	900-950mm	11μm	980	503	5.95kg
3677-1000	950-1000mm	11μm	1030	520	6.25kg

3677-350



INTERNAL GEAR TOOTH MICROMETERS

INSIZE PLUS

INSPECTION
CERTIFICATE

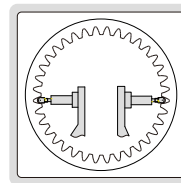
before ball tips
are installed

ball tips are optional



3678-50

- Measure over-pin diameter of gears
- Graduation: 0.01mm
- Ratchet stop
- Optional accessory: ball tips (code **7383**),
cylindrical tips (code **7393**, only for micrometers with L=8mm)



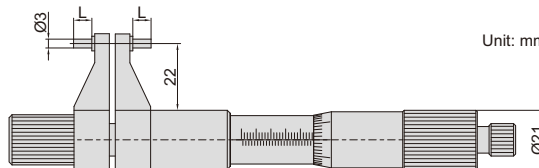
cylindrical tips (**optional**)
(only for micrometers with L=8mm)



Unit: mm

Code	Range	Accuracy	L
3678-50 *	25-50mm	4μm	6mm
3678-75 *	50-75mm	5μm	8mm

* Supplied with manufacturer inspection certificate



INSIDE MICROMETERS

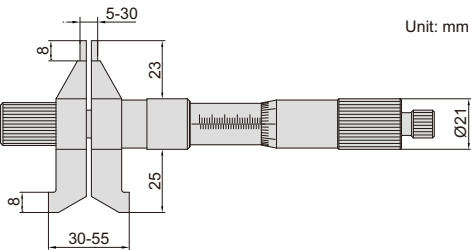
INSIZE PLUS



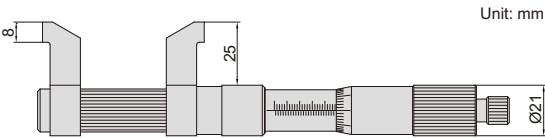
3679-55



3679-75



Type A



Type B

For type A, the upper jaws and lower jaws can be set zero separately



- Graduation: 0.01mm
- Carbide measuring faces
- Ratchet stop
- Optional accessory: setting ring (code **6312**), caliper/height gage checker(code **6884**)

Code	Range	Type	Accuracy
3679-55*	5-55mm	A	4µm
3679-75*	50-75mm	B	5µm
3679-100*	75-100mm	B	6µm
3679-125*	100-125mm	B	7µm
3679-150*	125-150mm	B	8µm
3679-175*	150-175mm	B	9µm
3679-200*	175-200mm	B	9µm
3679-225*	200-225mm	B	10µm
3679-250*	225-250mm	B	10µm
3679-275*	250-275mm	B	12µm
3679-300*	275-300mm	B	12µm

Code	Range	Type	Accuracy
3679-325*	300-325mm	B	15µm
3679-350*	325-350mm	B	15µm
3679-375*	350-375mm	B	16µm
3679-400*	375-400mm	B	16µm
3679-425*	400-425mm	B	17µm
3679-450*	425-450mm	B	17µm
3679-475*	450-475mm	B	18µm
3679-500*	475-500mm	B	18µm
3679-525*	500-525mm	B	19µm
3679-550*	525-550mm	B	19µm
3679-575*	550-575mm	B	20µm
3679-600*	575-600mm	B	20µm

*Supplied with manufacturer inspection certificate

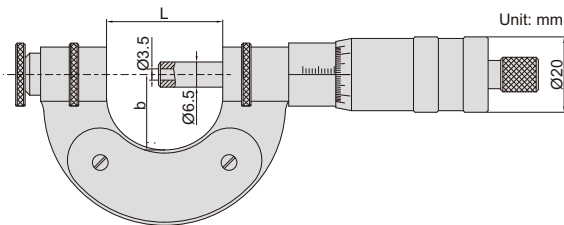
EXTERNAL SCREW THREAD MICROMETERS



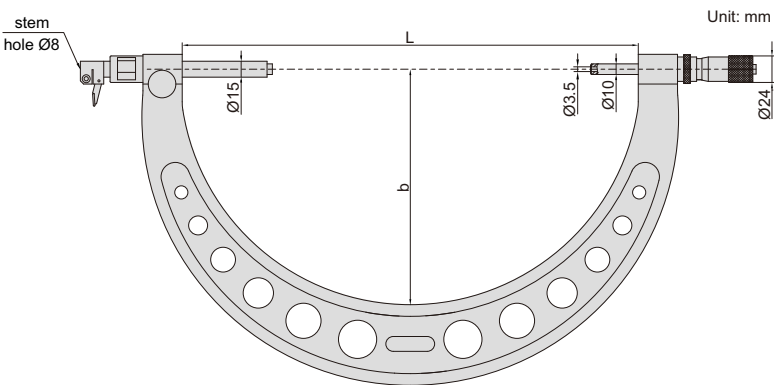
3680-50



3680-4001

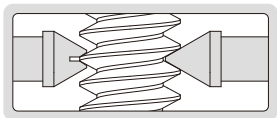


Type A



Type B

- Measure pitch diameter of screw threads
- Graduation 0.01mm
- Optional accessory: setting standards (code **7384**), external tread tips (code **7390**), dial/digital micrometers (only for type B)



Type A (ratchet stop) (mm)

Code	Range	Accuracy	L	b
3680-25*	0-25mm	4µm	37	24
3680-50*	25-50mm	4µm	62	34
3680-75*	50-75mm	4µm	87	46
3680-100*	75-100mm	4µm	112	60
3680-125*	100-125mm	5µm	139	72
3680-150*	125-150mm	5µm	164	85
3680-200*	150-200mm	7µm	215	110
3680-250*	200-250mm	7µm	264	135
3680-300*	250-300mm	7µm	315	160

Type B (without ratchet stop) (mm)

Code	Range	Left anvil retracting stroke	Micrometer head accuracy	L	b
3680-3001*	200-300mm	2.5mm	6µm	320	165
3680-4001*	300-400mm	2.5mm	7µm	430	220
3680-5001*	400-500mm	2.5mm	8µm	530	273
3680-6001*	500-600mm	2.5mm	9µm	630	323
3680-7001*	600-700mm	2.5mm	9µm	730	378
3680-8001*	700-800mm	2.5mm	9µm	830	423
3680-9001*	800-900mm	2.5mm	10µm	930	473
3680-10001*	900-1000mm	2.5mm	10µm	1030	520
3680-4002*	200-400mm	2.5mm	7µm	430	220
3680-6002*	400-600mm	2.5mm	9µm	630	323
3680-8002*	600-800mm	2.5mm	9µm	830	423
3680-10002*	800-1000mm	2.5mm	10µm	1030	520
3680-12002*	1000-1200mm	2.5mm	11µm	1230	635
3680-14002*	1200-1400mm	2.5mm	12µm	1430	735
3680-16002*	1400-1600mm	2.5mm	18µm	1660	840
3680-18002*	1600-1800mm	2.5mm	20µm	1870	940
3680-20002*	1800-2000mm	2.5mm	22µm	2075	1055

*Supplied with manufacture inspection certification

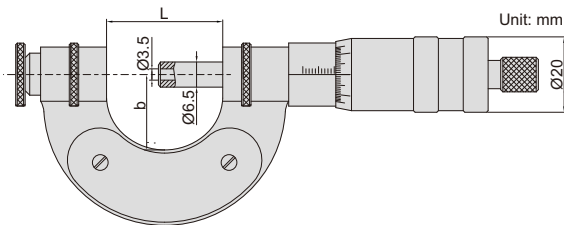
EXTERNAL SCREW THREAD MICROMETERS



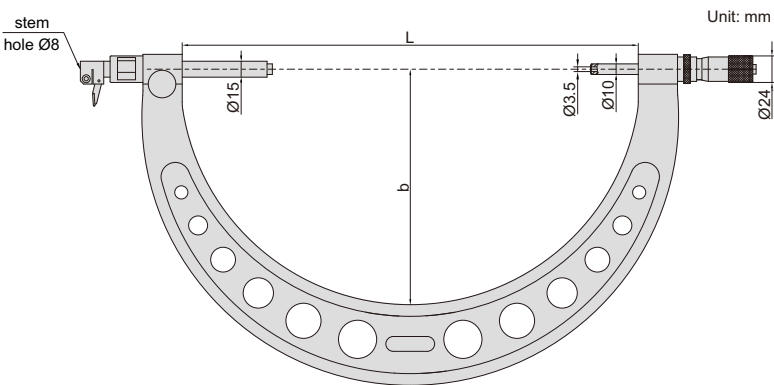
3680-50



3680-4001

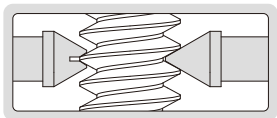


Type A



Type B

- Measure pitch diameter of screw threads
- Graduation 0.01mm
- Optional accessory: setting standards (code **7384**), external tread tips (code **7390**), dial/digital micrometers (only for type B)



Type A (ratchet stop) (mm)

Code	Range	Accuracy	L	b
3680-25*	0-25mm	4µm	37	24
3680-50*	25-50mm	4µm	62	34
3680-75*	50-75mm	4µm	87	46
3680-100*	75-100mm	4µm	112	60
3680-125*	100-125mm	5µm	139	72
3680-150*	125-150mm	5µm	164	85
3680-200*	150-200mm	7µm	215	110
3680-250*	200-250mm	7µm	264	135
3680-300*	250-300mm	7µm	315	160

Type B (without ratchet stop) (mm)

Code	Range	Left anvil retracting stroke	Micrometer head accuracy	L	b
3680-3001*	200-300mm	2.5mm	6µm	320	165
3680-4001*	300-400mm	2.5mm	7µm	430	220
3680-5001*	400-500mm	2.5mm	8µm	530	273
3680-6001*	500-600mm	2.5mm	9µm	630	323
3680-7001*	600-700mm	2.5mm	9µm	730	378
3680-8001*	700-800mm	2.5mm	9µm	830	423
3680-9001*	800-900mm	2.5mm	10µm	930	473
3680-10001*	900-1000mm	2.5mm	10µm	1030	520
3680-4002*	200-400mm	2.5mm	7µm	430	220
3680-6002*	400-600mm	2.5mm	9µm	630	323
3680-8002*	600-800mm	2.5mm	9µm	830	423
3680-10002*	800-1000mm	2.5mm	10µm	1030	520
3680-12002*	1000-1200mm	2.5mm	11µm	1230	635
3680-14002*	1200-1400mm	2.5mm	12µm	1430	735
3680-16002*	1400-1600mm	2.5mm	18µm	1660	840
3680-18002*	1600-1800mm	2.5mm	20µm	1870	940
3680-20002*	1800-2000mm	2.5mm	22µm	2075	1055

*Supplied with manufacture inspection certification

OUTSIDE MICROMETERS (GRADUATION 0.005mm)

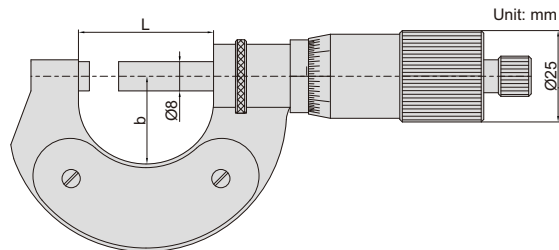
INSIZE PLUS

ATTENTION: SETTING
STANDARDS ARE NOT INCLUDED

- Graduation 0.005mm
- Friction thimble
- One turn of sleeve makes 0.5mm spindle feed
- Carbide measuring faces
- Optional accessory: setting standards (code **7386**)



3681-25



(mm)

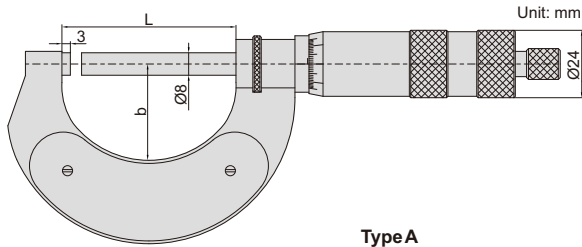
Code	Range	Accuracy	L	b
3681-25	0-25mm	4μm	37	24
3681-50	25-50mm	4μm	62	34
3681-75	50-75mm	5μm	87	46
3681-100	75-100mm	5μm	112	60
3681-125	100-125mm	6μm	139	72
3681-150	125-150mm	6μm	164	85
3681-175	150-175mm	7μm	190	97
3681-200	175-200mm	7μm	215	110
3681-225	200-225mm	8μm	240	122
3681-250	225-250mm	8μm	264	135
3681-275	250-275mm	9μm	290	148
3681-300	275-300mm	9μm	315	160

OUTSIDE MICROMETERS WITH 50mm RANGE

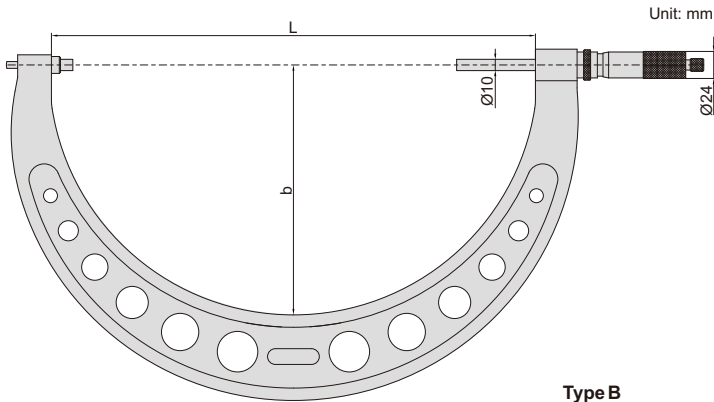
INSIZE➔PLUS

ATTENTION: SETTING
STANDARDS ARE NOT INCLUDED

LIGHT
WEIGHT



Type A



Type B

- Graduation 0.01mm
- Ratchet stop
- One turn of sleeve makes 1mm spindle feed
- Carbide measuring faces
- Optional accessory: setting standards (code 7386)

(mm)						
Code	Range	Type	Accuracy	L	b	Weight
3682-50	0-50mm	A	4µm	62	34	0.46kg
3682-100	50-100mm	A	5µm	112	60	0.62kg
3682-150	100-150mm	A	6µm	164	85	0.78kg
3682-200	150-200mm	A	7µm	215	110	1.03kg
3682-250	200-250mm	A	8µm	264	135	1.25kg
3682-300	250-300mm	A	9µm	315	160	1.45kg
3682-350	300-350mm	B	10µm	370	190	1.50kg
3682-400	350-400mm	B	11µm	430	220	1.80kg
3682-450	400-450mm	B	12µm	475	250	2.15kg
3682-500	450-500mm	B	13µm	530	273	2.30kg
3682-550	500-550mm	B	14µm	570	291	2.40kg
3682-600	550-600mm	B	14µm	630	323	3.00kg
3682-650	600-650mm	B	16µm	675	351	3.30kg
3682-700	650-700mm	B	16µm	730	378	3.70kg
3682-750	700-750mm	B	18µm	785	401	3.90kg
3682-800	750-800mm	B	18µm	830	423	4.10kg
3682-850	800-850mm	B	20µm	885	440	4.30kg
3682-900	850-900mm	B	20µm	930	473	4.90kg
3682-950	900-950mm	B	22µm	980	503	5.80kg
3682-1000	950-1000mm	B	22µm	1030	520	6.10kg

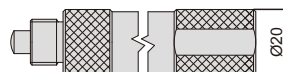
TUBULAR INSIDE MICROMETERS

INSIZE PLUS

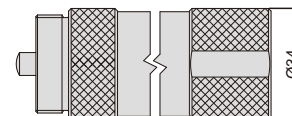


heat insulation extension rods

3683-200

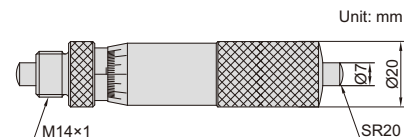


50, 100, 200, 400, 800mm



500, 1000mm

- Micrometer head: 100-150mm
- Graduation: 0.01mm
- Carbide measuring faces
- Heat insulation extension rods



Code	Range	Accuracy	Travel of micrometer head	Heat insulation extension rods
3683-150	100-150mm	6μm	50mm	-
3683-200	100-200mm	7μm	50mm	50mm
3683-300	100-300mm	9μm	50mm	50mm, 100mm
3683-500	100-500mm	13μm	50mm	50mm, 100mm, 200mm
3683-900	100-900mm	16μm	50mm	50mm, 100mm, 200mm, 400mm
3683-1300	100-1300mm	22μm	50mm	50mm, 100mm, 200mm, 400mm (2 pcs)
3683-1700	100-1700mm	27μm	50mm	50mm, 100mm, 200mm, 400mm, 800mm
3683-2000	100-2000mm	32μm	50mm	50mm, 100mm, 200mm (2 pcs), 500mm, 1000mm
3683-2100	100-2100mm	32μm	50mm	50mm, 100mm, 200mm, 400mm (2 pcs), 800mm
3683-2500	100-2500mm	40μm	50mm	50mm, 100mm, 200mm, 400mm, 800mm (2 pcs)
3683-3000	100-3000mm	50μm	50mm	50mm, 100mm, 200mm (2 pcs), 500mm, 1000mm (2 pcs)
3683-4000	100-4000mm	60μm	50mm	50mm, 100mm, 200mm (2 pcs), 500mm, 1000mm (3 pcs)
3683-5000	100-5000mm	72μm	50mm	50mm, 100mm, 200mm (2 pcs), 500mm, 1000mm (4 pcs)
3683-6000	100-6000mm	90μm	50mm	50mm, 100mm, 200mm (2 pcs), 500mm, 1000mm (5 pcs)

ATTENTION: SETTING
STANDARDS ARE NOT INCLUDED

LIGHT
WEIGHT

MICROMETERS WITH DIAL INDICATOR

INSIZE PLUS

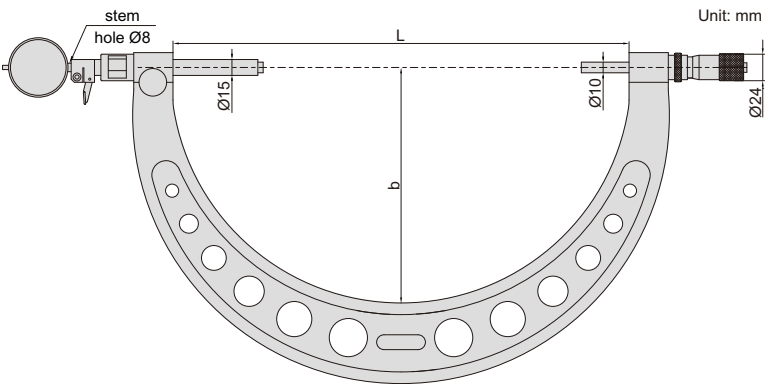
digital indicator
is optional



spindle retract fork

3685-300

anvil with vernier graduation,
can be adjusted for different measuring ranges



- Graduation 0.01mm
- Anvil with vernier graduation, convenient adjustment for different measuring ranges
- Meet DIN863-3
- Carbide measuring faces
- Anvil retracting range: 2.5mm
- Optional accessory: dial/digital indicators, setting standards (code **7386**)

Range 100mm (mm)					
Code	Range	Micrometer head accuracy	L	b	Weight
3685-300	200-300mm	6µm	320	165	1.7kg
3685-400	300-400mm	7µm	430	220	2.1kg
3685-500	400-500mm	8µm	530	273	2.6kg
3685-600	500-600mm	9µm	630	323	3.3kg
3685-700	600-700mm	9µm	730	378	4.0kg
3685-800	700-800mm	9µm	830	423	4.4kg
3685-900	800-900mm	10µm	930	473	5.2kg
3685-1000	900-1000mm	10µm	1030	520	6.4kg

Range 200mm (mm)					
Code	Range	Micrometer head accuracy	L	b	Weight
3685-402	200-400mm	7µm	430	220	2.2kg
3685-602	400-600mm	9µm	630	323	3.4kg
3685-802	600-800mm	9µm	830	423	4.5kg
3685-1002	800-1000mm	10µm	1030	520	6.5kg
3685-1202	1000-1200mm	11µm	1230	635	8.9kg
3685-1402	1200-1400mm	12µm	1430	735	11.6kg
3685-1602	1400-1600mm	18µm	1660	840	13.9kg
3685-1802	1600-1800mm	20µm	1870	940	16.5kg
3685-2002	1800-2000mm	22µm	2075	1055	19.1kg

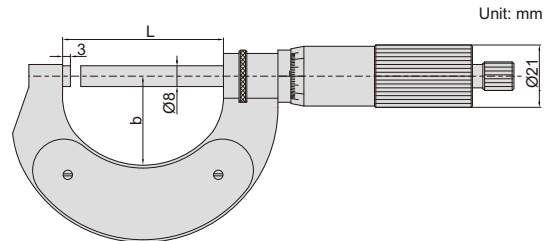
- Carbide measuring faces
- Graduation: 0.01mm
- Meet DIN863-1
- Friction thimble
- Optional accessory: setting standards (code **7386**)

Code	Range	Accuracy	L	b
3701-25A*	0-25mm	4μm	37mm	24mm
3701-50A*	25-50mm	4μm	62mm	34mm
3701-75A*	50-75mm	5μm	87mm	46mm
3701-100A*	75-100mm	5μm	112mm	60mm
3701-125A*	100-125mm	6μm	139mm	72mm
3701-150A*	125-150mm	6μm	164mm	85mm
3701-175A*	150-175mm	7μm	190mm	97mm
3701-200A*	175-200mm	7μm	215mm	110mm
3701-225A*	200-225mm	8μm	240mm	122mm
3701-250A*	225-250mm	8μm	264mm	135mm
3701-275A*	250-275mm	9μm	290mm	148mm
3701-300A*	275-300mm	9μm	315mm	160mm

* Supplied with manufacturer inspection certificate



3701-25A



**BALL TIPS DIAMETER
SØD CAN BE CUSTOMIZED**

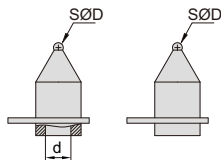
BALL TIPS FOR GEAR TOOTH MICROMETERS

INSIZE PLUS

- Supplied in pair
- Made of hardened steel
- Suitable for **3636, 3643, 3638, 3669, 3678** series micrometers



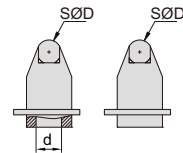
7383-1



Type A



7383-2



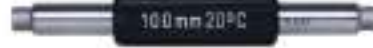
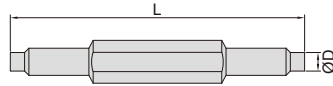
Type B

Code	Ball dia. (SØD)	d	Accuracy	Type
7383-1	SØ1mm	Ø3mm	±1µm	A
7383-1D5	SØ1.5mm	Ø3mm	±1µm	B
7383-1D75	SØ1.75mm	Ø3mm	±1µm	B
7383-2	SØ2mm	Ø3mm	±1µm	B
7383-2D25	SØ2.25mm	Ø3mm	±1µm	B
7383-2D5	SØ2.5mm	Ø3mm	±1µm	B
7383-3	SØ3mm	Ø3mm	±1µm	B
7383-3D5	SØ3.5mm	Ø3mm	±1µm	B
7383-4	SØ4mm	Ø3mm	±1µm	B
7383-4D5	SØ4.5mm	Ø3mm	±1µm	B
7383-5	SØ5mm	Ø3mm	±1µm	B
7383-5D5	SØ5.5mm	Ø3mm	±1µm	B
7383-6	SØ6mm	Ø3mm	±1µm	B

Code	Ball dia. (SØD)	d	Accuracy	Type
7383-6D5	SØ6.5mm	Ø3mm	±1µm	B
7383-7	SØ7mm	Ø3mm	±1µm	B
7383-7D5	SØ7.5mm	Ø3mm	±1µm	B
7383-8	SØ8mm	Ø3mm	±1µm	B
7383-9	SØ9mm	Ø3mm	±1µm	B
7383-10	SØ10mm	Ø3mm	±1µm	B
7383-10D5	SØ10.5mm	Ø3mm	±1.5µm	B
7383-11	SØ11mm	Ø3mm	±1.5µm	B
7383-12	SØ12mm	Ø3mm	±1.5µm	B
7383-13	SØ13mm	Ø3mm	±1.5µm	B
7383-14	SØ14mm	Ø3mm	±1.5µm	B
7383-15	SØ15mm	Ø3mm	±1.5µm	B
7383-16	SØ16mm	Ø3mm	±1.5µm	B

MICROMETERS SETTING STANDARDS

←INSIZE→PLUS



7386-100

- Suitable for outside micrometers

Code	Length(L)	Accuracy	ØD
7386-25	25mm	±1.25µm	6.5mm
7386-50	50mm	± 1.25µm	6.5mm
7386-75	75mm	± 1.5µm	6.5mm
7386-100	100mm	± 2µm	6.5mm
7386-125	125mm	± 2.5µm	6.5mm
7386-150	150mm	± 2.5µm	6.5mm
7386-175	175mm	± 2.5µm	6.5mm
7386-200	200mm	± 3µm	6.5mm
7386-225	225mm	± 3µm	6.5mm
7386-250	250mm	± 3µm	6.5mm
7386-275	275mm	±3µm	6.5mm
7386-300	300mm	±3µm	10mm
7386-325	325mm	±3.5µm	10mm
7386-350	350mm	±3.5µm	10mm
7386-375	375mm	±3.5µm	10mm
7386-400	400mm	±3.5µm	10mm

Code	Length(L)	Accuracy	ØD
7386-425	425mm	±3.5µm	10mm
7386-450	450mm	±3.5µm	10mm
7386-475	475mm	±3.5µm	10mm
7386-500	500mm	±3.5µm	10mm
7386-525	525mm	±3.5µm	10mm
7386-550	550mm	±3.5µm	10mm
7386-575	575mm	±3.5µm	10mm
7386-600	600mm	±3.5µm	10mm
7386-625	625mm	±4µm	10mm
7386-650	650mm	±4µm	10mm
7386-675	675mm	±4µm	10mm
7386-700	700mm	±4µm	10mm
7386-725	725mm	±4µm	10mm
7386-750	750mm	±4µm	10mm
7386-775	775mm	±4µm	10mm
7386-800	800mm	±4µm	10mm
7386-825	825mm	±4µm	10mm

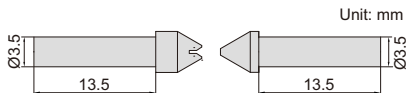
Code	Length(L)	Accuracy	ØD
7386-850	850mm	±4µm	10mm
7386-875	875mm	±4µm	10mm
7386-900	900mm	±5µm	10mm
7386-925	925mm	±5µm	10mm
7386-950	950mm	±5µm	10mm
7386-975	975mm	±5µm	10mm
7386-1000	1000mm	±5µm	10mm
7386-1050	1050mm	±5µm	10mm
7386-1150	1150mm	±6µm	10mm
7386-1250	1250mm	±7µm	10mm
7386-1350	1350mm	±7µm	10mm
7386-1450	1450mm	±7µm	10mm
7386-1550	1550mm	±9µm	10mm
7386-1650	1650mm	±10µm	10mm
7386-1750	1750mm	±10µm	10mm
7386-1850	1850mm	±11µm	10mm
7386-1950	1950mm	±12µm	10mm

MEASURING TIPS FOR EXTERNAL SCREW THREAD MICROMETERS

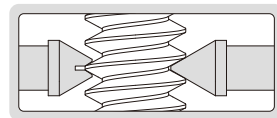
INSIZE PLUS



7390-T104



- Supplied in pair
- Made of hardened steel
- Suitable for **3680** series micrometers



60° thread angle

Code	Pitch
7390-T101	0.35-0.5mm/ 72-48TPI
7390-T102	0.6-0.8mm/ 44-32TPI
7390-T103	0.9-1.25mm/ 28-18TPI
7390-T104	1.5-2mm/ 16-11TPI
7390-T105	2.5-3.5mm/ 10-7TPI
7390-T106	4-6mm/ 6-4TPI

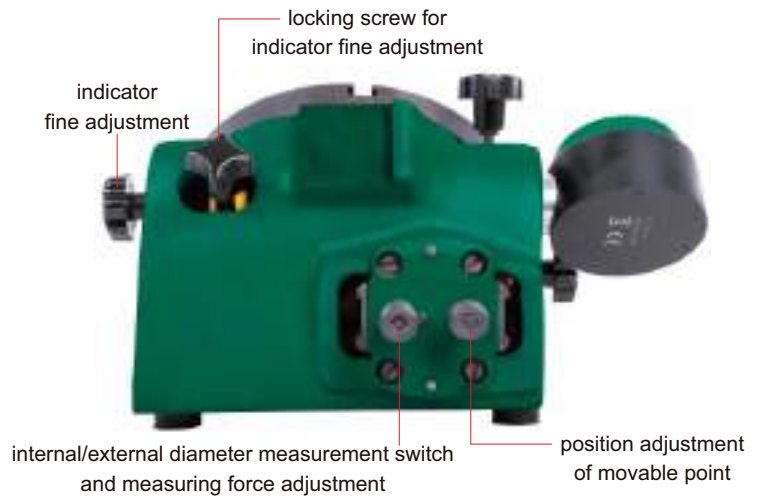
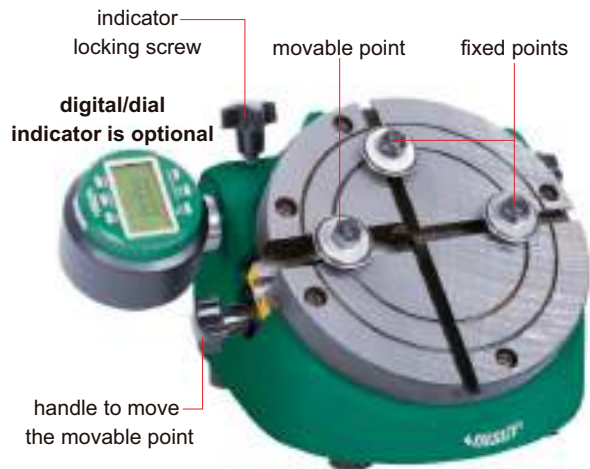
55° thread angle

Code	Pitch
7390-T201	60-48TPI
7390-T202	40-32TPI
7390-T203	28-22TPI
7390-T204	20-16TPI
7390-T205	14-11TPI
7390-T206	10-7TPI
7390-T207	6-4TPI

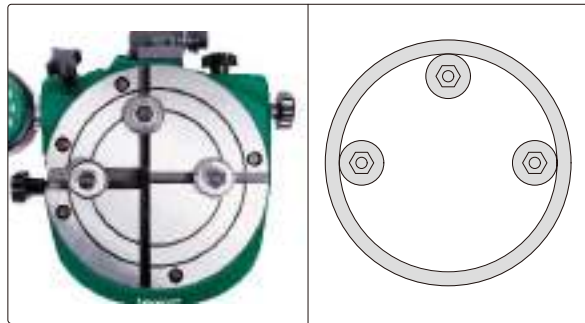
30° thread angle

Code	Pitch
7390-T301	1.5mm
7390-T302	2mm
7390-T303	3mm
7390-T304	4mm
7390-T305	5-6mm
7390-T306	7-8mm
7390-T307	9-10mm
7390-T308	12-14mm

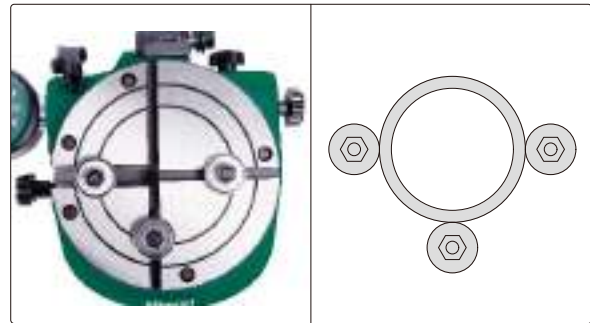
INTERNAL AND EXTERNAL DIAMETER COMPARISON INSTRUMENT



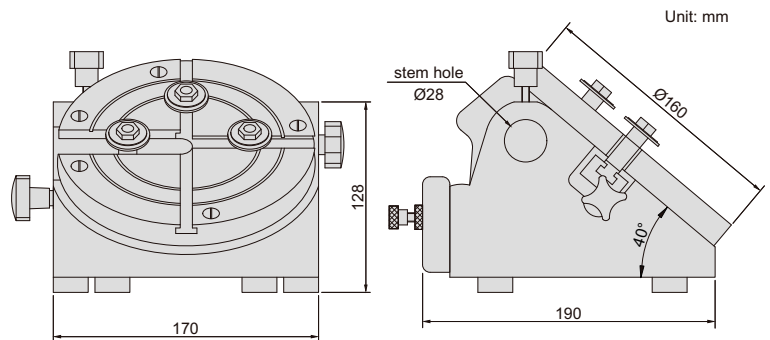
internal diameter measurement



external diameter measurement



- Measure internal/external diameter, variation and taper
- Total range of movable point: 2mm, effective range of movable point: $\pm 0.1\text{mm}$
- Optional accessory: $\varnothing 28\text{mm}/\varnothing 8\text{mm}$ bush (code **6843-B8**), 0.001mm digital/dial indicators, high precision digital indicators (code **2140-6**, **2140-6WL**)



Code	Applicable holding stem	Range of internal diameter	Range of external diameter	Accuracy	Repeatability
6843-140	$\varnothing 28\text{mm}$	50-140mm/2-5.5"	30-120mm/1.2-4.7"	$\pm 0.001\text{mm}$	0.001mm

$\varnothing 28\text{mm}/\varnothing 8\text{mm}$ bush (optional)

Code
6843-B8

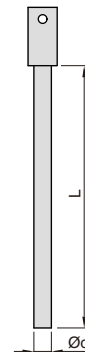


application



CARBIDE 3-WIRES

CUSTOMIZABLE PIN
GAGE DIAMETER $\varnothing d$



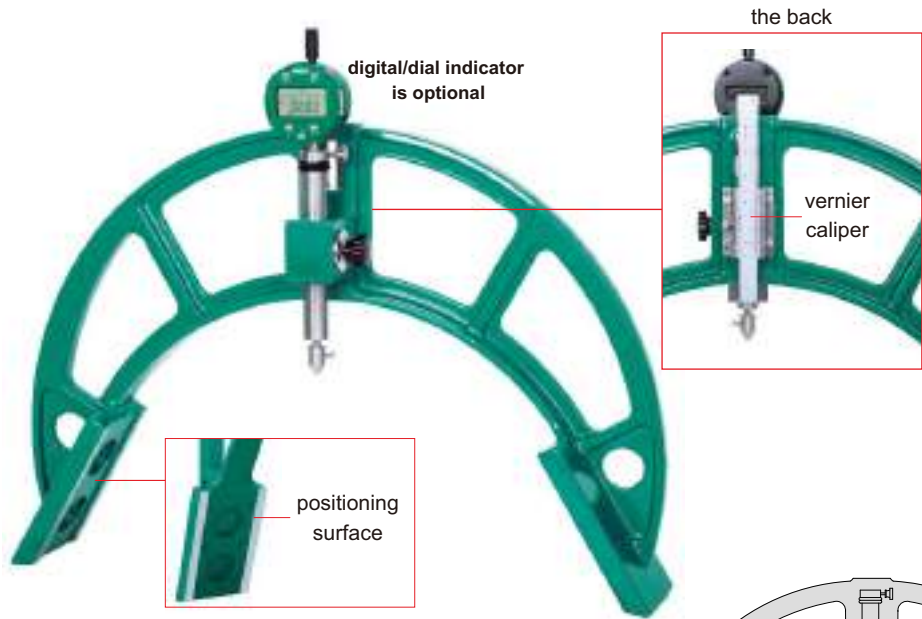
- When $\varnothing d \leq 0.3\text{mm}$, length $L=25\text{mm}$;
 $\varnothing d > 0.3\text{mm}$, length $L=45\text{mm}$
- Made of carbide
- Hardness HRA90
- Diameter accuracy: $\pm 0.5\mu\text{m}$
- Cylindricity: $1\mu\text{m}$
- Supplied with manufacturer inspection certificate

7394-75A

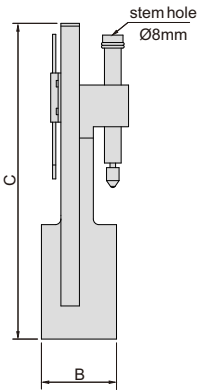
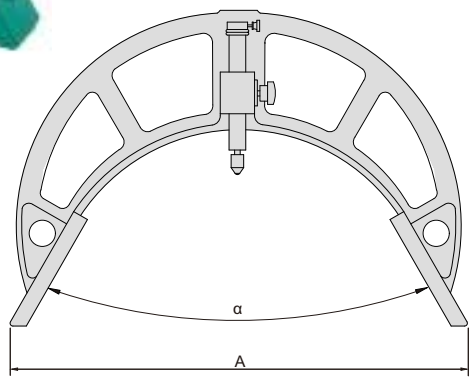
Code	Diameter ($\varnothing d$)	Applicable pitch
7394-60A	0.170mm	0.2mm, 0.25mm, 0.3mm
7394-61A	0.195mm	0.35mm
7394-62A	0.220mm	0.4mm
7394-63A	0.250mm	0.45mm
7394-64A	0.290mm	0.5mm
7394-65A	0.335mm	0.6mm
7394-66A	0.390mm	0.7mm
7394-67A	0.455mm	0.75mm, 0.8mm
7394-68A	0.530mm	0.9mm

Code	Diameter ($\varnothing d$)	Applicable pitch
7394-69A	0.620mm	1.0mm
7394-70A	0.725mm	1.25mm
7394-71A	0.895mm	1.5mm
7394-72A	1.100mm	1.75mm, 2.0mm
7394-73A	1.350mm	2.5mm
7394-74A	1.650mm	3.0mm
7394-75A	2.050mm	3.5mm
7394-76A	2.550mm	4mm, 4.5mm
7394-77A	3.200mm	5mm, 5.5mm, 6mm

OUTSIDE DIAMETER MEASURING INSTRUMENTS



- Comparison measurement by digital/dial indicators. Need standard workpieces to set zero. Measure diameter/convex/concave/taper/roundness and other parameters, can also measure the wear and surface scratch of the workpieces
- Diameter measurement by vernier caliper, graduation: 0.02mm
- The frame is made of aluminum magnesium alloy with light weight and high strength
- Optional accessory: 0.01mm or 0.001mm digital/dial indicators



(mm)							
Code	Range	Repeatability (by digital/dial indicators)	Accuracy (by vernier caliper)	α	A	B	C
2716-60	18-60	0.01mm	0.04mm	60°	140	60	160
2716-120	60-120	0.01mm	0.04mm	60°	160	65	192
2716-200	120-200	0.01mm	0.04mm	60°	225	70	228
2716-300	200-300	0.01mm	0.04mm	60°	330	80	262
2716-400	300-400	0.01mm	0.04mm	60°	405	80	303
2716-500	400-500	0.01mm	0.04mm	60°	494	80	340
2716-600	500-600	0.01mm	0.04mm	60°	594	80	398
2716-700	600-700	0.01mm	0.04mm	60°	685	80	446
2716-800	700-800	0.01mm	0.04mm	60°	772	80	479
2716-900	800-900	0.01mm	0.04mm	60°	860	80	520
2716-1000	900-1000	0.01mm	0.04mm	60°	950	80	560
2716-1100	1000-1100	0.01mm	0.04mm	60°	1035	90	575
2716-1200	1000-1200	0.01mm	0.08mm	83.62°	960	100	460
2716-1300	1100-1300	0.01mm	0.08mm	83.62°	1000	100	485
2716-1400	1200-1400	0.01mm	0.08mm	83.62°	1100	100	512
2716-1600	1400-1600	0.01mm	0.08mm	83.62°	1260	100	540
2716-1800	1600-1800	0.01mm	0.08mm	83.62°	1460	100	570
2716-2000	1800-2000	0.01mm	0.08mm	83.62°	1645	100	605

IP65
WATERPROOF

DATA
OUTPUT

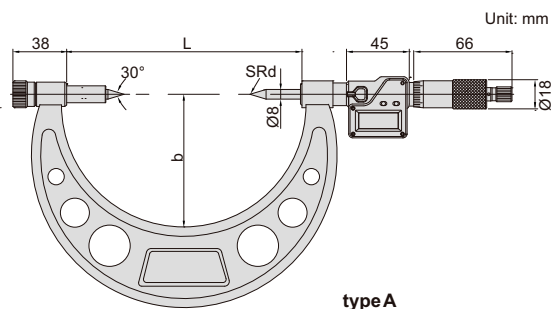
DIGITAL GEAR ROOT DIAMETER MICROMETERS



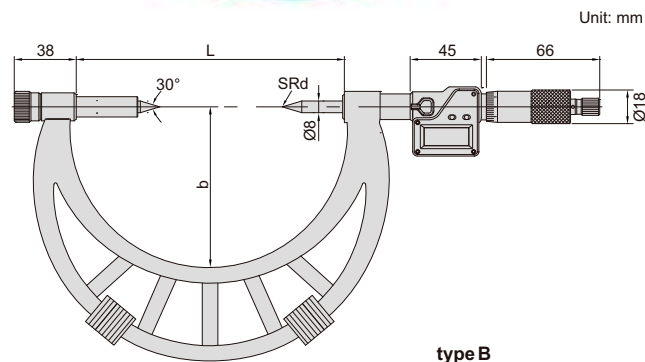
3597-100



3597-300



type A



type B

Unit: mm

- Measure diameter of gear root circle
- Resolution 0.001mm/0.0001" (resolution of **3597-100** and **3597-200** is 0.001mm/0.00005")
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC
- Data output
- Automatic power off
- Ratchet stop
- Carbide measuring faces
- Supplied with setting standards
- Optional accessory: data output cable (code **7315-30**, **7302-30**)

(mm)

Code	Range	Type	Accuracy	L	b	SRd
3597-100	5-100mm	A	3μm	137	72	0.4
3597-200	100-200mm	A	4μm	237	129	0.5
3597-300	200-300mm	B	5μm	414	225	0.7
3597-400	300-400mm	B	6μm	514	275	0.7
3597-500	400-500mm	B	7μm	614	325	0.7
3597-600	500-600mm	B	8μm	714	375	0.7
3597-700	600-700mm	B	8μm	814	425	0.7
3597-800	700-800mm	B	9μm	914	475	0.7
3597-900	800-900mm	B	10μm	1014	525	0.7

- DIN863-3 Standardına uygundur
- Çark çapı ölçülür
- Hassasiyet 0,01 mm
- Cırcırlı
- Opsiyonel aksesuar: bilya uçlar (kod **7383**)

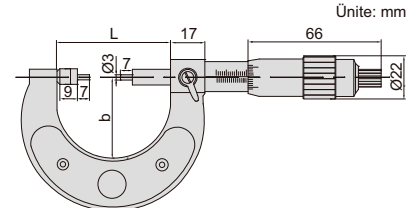
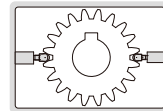
Kod	Ölçüm aralığı	Doğruluk	L	b
3636-25	0-25mm	4µm	56	40
3636-50	25-50mm	4µm	81,5	52
3636-75	50-75mm	5µm	106,5	64,5
3636-100	75-100mm	5µm	131,5	76
3636-125	100-125mm	6µm	156,5	88,5
3636-150	125-150mm	6µm	181,5	100
3636-175	150-175mm	7µm	242,5	121,5
3636-200	175-200mm	7µm	242,5	121,5
3636-225	200-225mm	8µm	267,5	134
3636-250	225-250mm	8µm	292,5	146,5
3636-275	250-275mm	9µm	318	159
3636-300	275-300mm	9µm	342,5	171,5
3636-325	300-325mm	10µm	367,5	184
3636-350	325-350mm	10µm	392,5	196,5
3636-375	350-375mm	11µm	417,5	209

DIŞLI ÇARK MİKROMETRESİ

INSIZE PLUS
ALMAN MALI



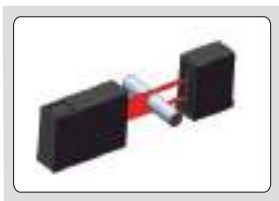
3636-25



LASER SCAN MICROMETER



- Measure outer diameter, ellipticity, run-out, maximum outer circle of tool rotation, blade edge jump and bump detection
- Can be used for transparent or non transparent objects
- Low and high limits
- Online measurement in line or offline measurement
- Connected with computer and PLC



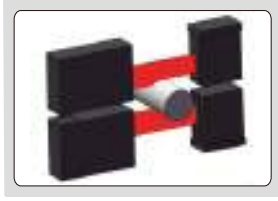
measure outer diameter



measure ellipticity and run-out



dual axis measurement



large size measurement

SPECIFICATION

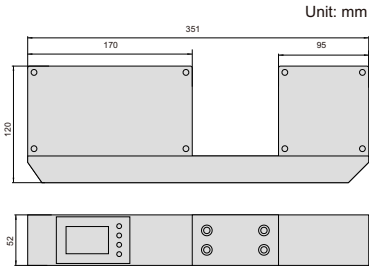
Code	LDM-030	LDM-065
Measuring range	0.1~30mm	0.5~65mm
Resolution	0.01/0.1/1/10/100μm	
25°C Accuracy	±(0.5+5%D)μm D is measuring diameter in mm	
Repeatability	0.2μm	0.4μm
Laser wave length	650nm	
Measuring speed	800~3200times/s(adjustable)	
Working temperature	0~50°C	
Working humidity	35~85RH without condensation	
Output	dual channel RS485	
Alarm output	24V, 1A	
Power supply	DC24V, 2A	
Dimension (L×W×H)	351×52×120mm	469×52×156mm
Weight	5kg	8kg



V-block(optional)



calibration gage(optional)



STANDARD DELIVERY

Main unit	1pc
AC/DC adapter	1pc
RS485 cable	1pc

OPTIONAL DELIVERY

V-block	LDM-030-V1 (for LDM-030)
Calibration gage	custom made

MICROMETERS FOR HOT PLATE

- Measure thickness of hot rolling sheet metal
- Carbide measuring faces
- Supplied with setting standard(except 0-15mm)



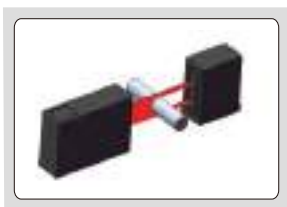
3264-15

Code	Range	Graduation	Accuracy
3264-15	0-15mm	0.05mm	0.05mm
3264-30	15-30mm	0.05mm	0.05mm
3264-45	30-45mm	0.05mm	0.05mm
3264-60	45-60mm	0.05mm	0.05mm
3264-75	60-75mm	0.05mm	0.05mm
3264-90	75-90mm	0.05mm	0.05mm
3264-105	90-105mm	0.05mm	0.05mm

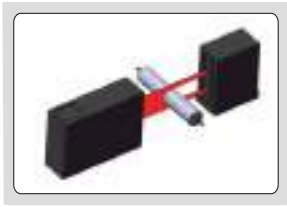
LASER SCAN MICROMETERS



- Measure outer diameter, ellipticity, run-out, maximum diameter of tools, etc.
- Can be used for transparent or non transparent workpieces
- Tolerance measurement
- Online or offline measurement
- Connected with computer and PLC



measure outer diameter



measure ellipticity and run-out



two-axis measurement



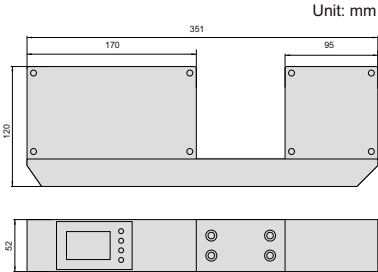
large size measurement

SPECIFICATION

Code	LDM-030	LDM-065
Measuring range	0.1~30mm	0.5~65mm
Resolution	0.01/0.1/1/10/100μm selectable	
25°C accuracy	±(0.5+10%D)μm, D is measuring diameter in mm	
Repeatability	±(0.3+5%D)μm, D is measuring diameter in mm	
Laser wave length	650nm	
Measuring speed	800~3200times/s(adjustable)	
Working temperature	0~50°C	
Working humidity	35~85RH without condensation	
Output	dual channel RS485	
Alarm output	24V, 1A	
Power supply	DC24V, 2A	
Dimension (L×W×H)	351×52×120mm	469×52×156mm
Weight	5kg	8kg



calibration gage(optional)



STANDARD DELIVERY

Main unit	1pc
V-block	1pc
AC/DC adapter	1pc
RS485 cable	1pc

OPTIONAL ACCESSORY

Calibration gage	custom made
------------------	-------------

3-PIECE MEASURING TOOL SET

■ Includes:

- 1) Vernier caliper, range 0-150mm graduation 0.02mm (code **1205-1501S**)
- 2) Outside micrometer, range 0-25mm, graduation 0.01mm (code **3203-25A**)
- 3) Steel rule, range 150mm/6", graduation 0.5mm, 1mm, 1/64", 1/32", 1/16" (code **7110-150**)
- 4) Dust free gloves and dust free cloth

dust free gloves and dust free cloth



Code

5032

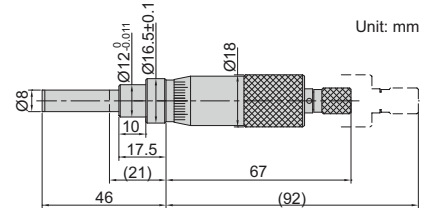
5032

NON-ROTATING SPINDLE MICROMETER HEAD

- Meet DIN863-2
- Graduation 0.01mm
- Ratchet stop
- Non-rotating spindle



6377-25W

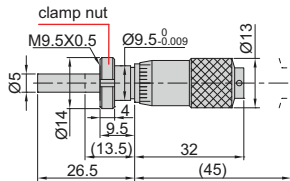


Code	Range	Stem	Spindle tip	Accuracy
6377-25W	0-25mm	plain	flat (carbide)	3μm

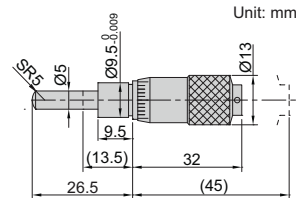
MICROMETER HEADS



6386-13W



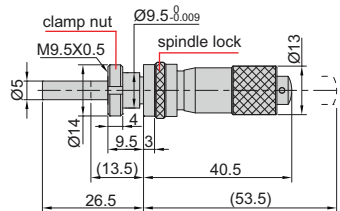
6386-13



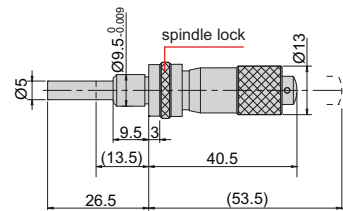
6386-13WS



6386-13P



6386-13P



6386-13WP

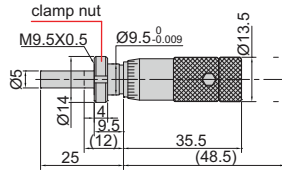
Code	Range	Stem	Spindle tip	Remark	Accuracy
6386-13	0-13mm	with clamp nut	flat		3μm
6386-13W	0-13mm	plain	flat		3μm
6386-13S	0-13mm	with clamp nut	spherical (SR5)		3μm
6386-13WS	0-13mm	plain	spherical (SR5)		3μm
6386-13P	0-13mm	with clamp nut	flat	with spindle lock	3μm
6386-13WP	0-13mm	plain	flat	with spindle lock	3μm

- Meet DIN863-2
- Graduation 0.01mm

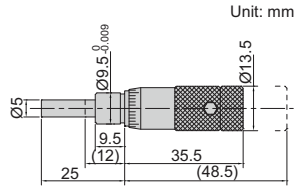
Unit: mm

MICROMETER HEADS WITH ZERO ADJUSTABLE THIMBLE

- Meet DIN863-2
- Range 0-13mm
- Graduation 0.01mm
- Accuracy 3μm
- The thimble can be set to zero at any position



6384-13



6384-13W

Unit: mm



6384-13W

Code	Stem	Spindle tip
6384-13	with clamp nut	flat
6384-13W	plain	flat

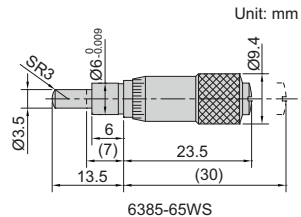
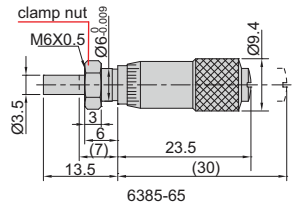
SMALL MICROMETER HEADS

- Range 0-6.5mm
- Graduation 0.01mm
- Accuracy 5μm



6385-65W

Code	Stem	Spindle tip
6385-65	with clamp nut	flat
6385-65W	plain	flat
6385-65S	with clamp nut	spherical (SR3)
6385-65WS	plain	spherical (SR3)



Unit: mm



MICROMETER LAPPING MACHINE

CODE 6307



lapping blocks (code: **6307-1**, optional)



- Used for lapping micrometer measuring surfaces
- Suitable for 0~100mm range micrometers

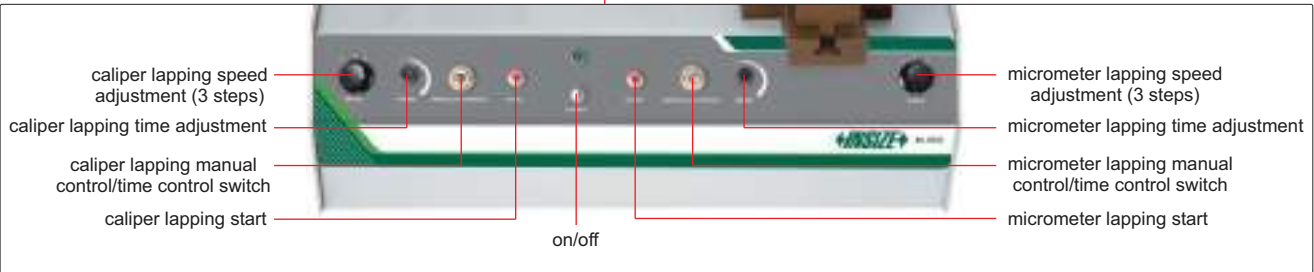
SPECIFICATION

Power supply	220V, 50/60HZ
Dimension (L×W×H)	450×260×220mm
Weight	30kg

LAPPING BLOCKS (optional)

Code	For micrometer	Remark
6307-1	0~25mm	includes 4 lapping blocks
6307-2	25~50mm	includes 4 lapping blocks
6307-3	50~75mm	includes 4 lapping blocks
6307-4	75~100mm	includes 4 lapping blocks

CALIPER/MICROMETER LAPPING MACHINE
CODE 6318



lapping measuring surfaces of caliper lower jaws



lapping measuring surfaces of outside micrometer



- For lapping measuring surfaces of caliper lower jaws and outside micrometer
- Suitable for 0-300mm range calipers and 0-100mm range outside micrometers

caliper lapping block (included)



micrometer lapping blocks (code: 6307-1, optional)



SPECIFICATION

Power supply	220V, 50/60Hz
Dimension (L×W×H)	430×400×210mm
Weight	28kg

MICROMETER LAPPING BLOCKS (optional)

Code	For micrometer	Remark
6307-1	0~25mm	includes 4 lapping blocks
6307-2	25~50mm	includes 4 lapping blocks
6307-3	50~75mm	includes 4 lapping blocks
6307-4	75~100mm	includes 4 lapping blocks

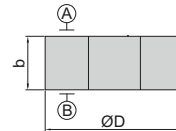
OPTICAL PARALLELS

- Check the flatness and parallelism of measuring faces of micrometer
- Flatness of A and B: $0.1\mu\text{m}$
- Parallelism between A and B: $0.6\mu\text{m}$



4184-41A

Code	Parallels included (b)	ØD	Applicable micrometer
4184-41A	15.62mm, 15.75mm, 15.87mm, 16.00mm	30mm	0-25mm
4184-42A	40.62mm, 40.75mm, 40.87mm, 41.00mm	30mm	25-50mm
4184-43B	65.62mm, 65.75mm, 65.87mm, 66.00mm	40mm	50-75mm
4184-44B	90.62mm, 90.75mm, 90.87mm, 91.00mm	50mm	75-100mm



**DATA
OUTPUT**

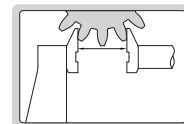
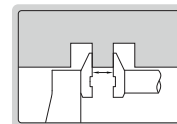
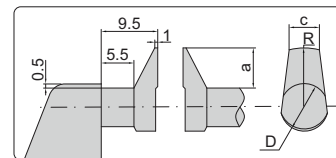
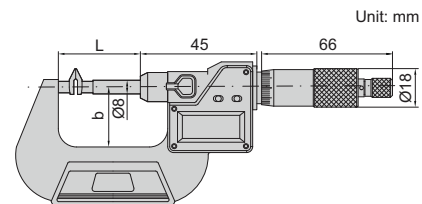
**NON-ROTATING
SPINDLE**

DIGITAL JAW TYPE MICROMETERS



3583-25A

- Resolution 0.001mm/0.00005"
- Non-rotating spindle
- Button function: on/off, set, mm/inch, ABS/INC
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessory: data output cable
(code **7315-30, 7302-30**)



								(mm)
Code	Range	Accuracy	L	a	b	c	R	D
3583-25A	0-25mm/0-1"	±4µm	43	6.5	32	5	10	8
3583-50A	25-50mm/1-2"	±4µm	85	6.5	44.5	5	10	8
3583-75A	50-75mm/2-3"	±5µm	110	6.5	57	5	10	8
3583-100A	75-100mm/3-4"	±5µm	135	6.5	70	5	10	8
3583-125A	100-125mm/4-5"	±6µm	160	11.5	86	8	15	12
3583-150A	125-150mm/5-6"	±6µm	186	11.5	94.5	8	15	12
3583-175A	150-175mm/6-7"	±7µm	211	11.5	107	8	15	12
3583-200A	175-200mm/7-8"	±7µm	236	11.5	120	8	15	12

NON-ROTATING
SPINDLE

JAW TYPE MICROMETERS

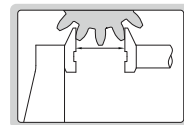
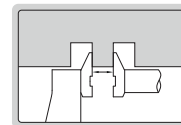
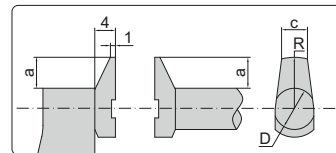
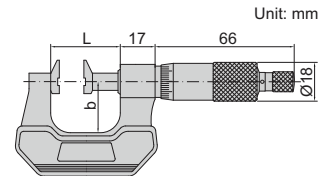


3283-25A

- Graduation 0.01mm
- Non-rotating spindle
- Ratchet stop
- Supplied with setting standards (except 0-25mm)

Code	Range	Accuracy	L	a	b	c	R	D
3283-25A	0-25mm	4μm	34	6	24	5	10	8
3283-50A	25-50mm	4μm	59	6	32	5	10	8
3283-75A	50-75mm	5μm	85	6	45	5	10	8
3283-100A	75-100mm	5μm	110	6	57	5	10	8
3283-125A	100-125mm	6μm	138	9	70	8	15	12
3283-150A	125-150mm	6μm	163	9	82	8	15	12
3283-175A	150-175mm	7μm	188	9	95	8	15	12
3283-200A	175-200mm	7μm	214	9	107	8	15	12

(mm)



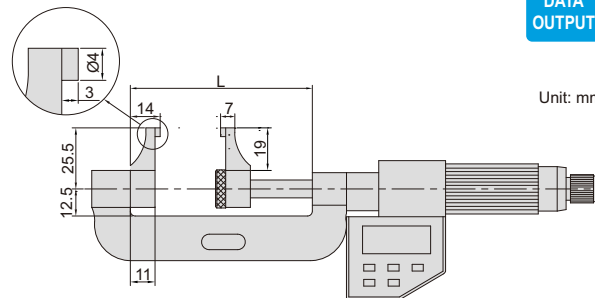
DIGITAL CALIPER TYPE MICROMETERS



3538-25

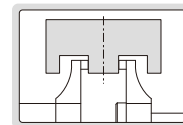
Code	Range	Accuracy	L
3538-25	0-25mm/0-1"	±10µm	56mm
3538-50	25-50mm/1-2"	±10µm	81mm
3538-75	50-75mm/2-3"	±11µm	106mm
3538-100	75-100mm/3-4"	±11µm	131mm

- Resolution: 0.001mm/0.00005"
- Non-rotating spindle
- Buttons: on/off, data set, mm/in, ABS/INC
- Data output
- LR44 battery, automatic power off
- Ratchet friction thimble
- Carbide measuring faces
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7315-30**, **7302-30**)



DATA
OUTPUT

Unit: mm



DATA
OUTPUT

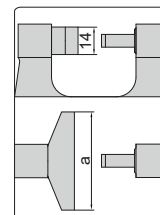
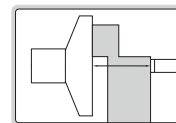
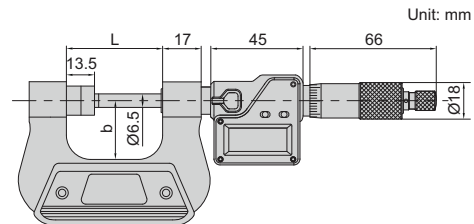
IP65
WATERPROOF

DIGITAL LARGE ANVIL MICROMETERS



3534-25A

- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC
- Data output
- LR44 battery, automatic power off
- Ratchet stop
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7315-30**, **7302-30**)



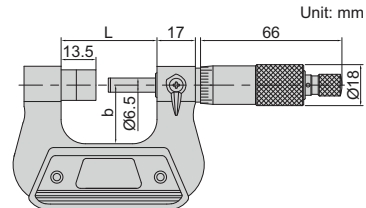
Code	Range	Accuracy	L	a	b
3534-25A	0-25mm/0-1"	±4μm	42mm	50mm	26mm
3534-50A	25-50mm/1-2"	±4μm	67mm	60mm	38mm

LARGE ANVIL MICROMETERS

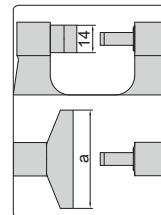
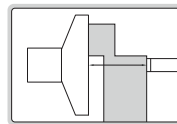
- Graduation 0.01mm
- Ratchet stop
- Supplied with setting standards (except 0-25mm)



3234-25A



(mm)					
Code	Range	Accuracy	L	a	b
3234-25A	0-25mm	4μm	42	50	26
3234-50A	25-50mm	4μm	67	60	38



BALL TIPS FOR GEAR TOOTH MICROMETERS

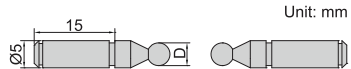
- Supplied in pair
- Suitable for **3291**, **3591** series micrometers

Code	Ball dia. (D)
7391-T2	SØ1.5mm
7391-T3	SØ2.0mm
7391-T4	SØ2.5mm
7391-T5	SØ3.0mm
7391-T6	SØ3.5mm

Code	Ball dia. (D)
7391-T7	SØ4.0mm
7391-T8	SØ4.5mm
7391-T9	SØ5.0mm
7391-T10	SØ6.0mm



7391-T5

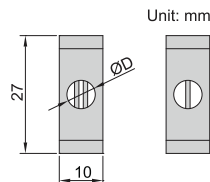


- Used with standard outside micrometers to measure pitch diameter of screw threads
- Diameter accuracy: $\pm 0.5\mu\text{m}$
- Cylindricity: $1\mu\text{m}$
- Hardness: HRC60
- Supplied with manufacturer inspection certificate

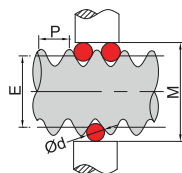


VIDEO

7382-19



application



Formula of pitch diameter E

$$E = M - 3d + 0.866025P$$

M=measured value of the micrometer
d=diameter of the pin gage (choose diameter of pin gage according to pitch: $d=0.577P$)

P=screw thread pitch

The formula is suitable for 60° screw

For outside micrometers with spindle Ø6.35mm (ØD)

Code	Pin gage diameter (Ød)	Applicable pitch
7382-11	0.170mm	0.2mm, 0.25mm, 0.3mm
7382-12	0.195mm	0.35mm
7382-13	0.220mm	0.4mm
7382-14	0.250mm	0.45mm
7382-15	0.290mm	0.5mm
7382-16	0.335mm	0.6mm
7382-17	0.390mm	0.7mm
7382-18	0.455mm	0.75mm, 0.8mm
7382-19	0.530mm	0.9mm
7382-110	0.620mm	1.0mm
7382-111	0.725mm	1.25mm
7382-112	0.895mm	1.5mm
7382-113	1.100mm	1.75mm, 2.0mm
7382-114	1.350mm	2.5mm
7382-115	1.650mm	3.0mm
7382-116	2.050mm	3.5mm
7382-117	2.550mm	4mm, 4.5mm
7382-118	3.200mm	5mm, 5.5mm, 6mm
7382-1S	18 pairs/set, including all above 3-wires	

For outside micrometers with spindle Ø6.50mm (ØD)

Code	Pin gage diameter (Ød)	Applicable pitch
7382-21	0.170mm	0.2mm, 0.25mm, 0.3mm
7382-22	0.195mm	0.35mm
7382-23	0.220mm	0.4mm
7382-24	0.250mm	0.45mm
7382-25	0.290mm	0.5mm
7382-26	0.335mm	0.6mm
7382-27	0.390mm	0.7mm
7382-28	0.455mm	0.75mm, 0.8mm
7382-29	0.530mm	0.9mm
7382-210	0.620mm	1.0mm
7382-211	0.725mm	1.25mm
7382-212	0.895mm	1.5mm
7382-213	1.100mm	1.75mm, 2.0mm
7382-214	1.350mm	2.5mm
7382-215	1.650mm	3.0mm
7382-216	2.050mm	3.5mm
7382-217	2.550mm	4mm, 4.5mm
7382-218	3.200mm	5mm, 5.5mm, 6mm
7382-2S	18 pairs/set, including all above 3-wires	

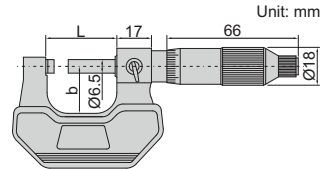
NON MAGNETIC MICROMETERS

- Suitable for magnetic materials
- Graduation: 0.01mm
- Non magnetic carbide measuring faces
- Ratchet stop

Code	Range	Accuracy	L	b
3231-25A	0-25mm	4μm	32mm	24mm
3231-50A	25-50mm	4μm	57mm	32mm
3231-75A	50-75mm	5μm	82mm	45mm
3231-100A	75-100mm	5μm	105mm	57mm



3231-25A



DIGITAL VERTICAL MICROMETERS

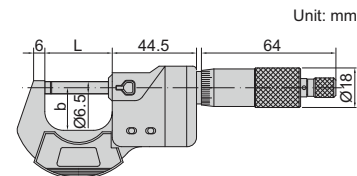
- Measure the thickness of plates for easy reading
- Resolution 0.001mm/0.00005"
- IP65 dust/waterproof
- Button function: on/off, set, mm/inch, ABS/INC
- Data output
- LR44 battery, automatic power off
- Carbide spindle tip
- Ratchet stop
- Supplied with setting standards (except 0-25mm/0-1")
- Optional accessory: data output cable (code **7315-30**, **7302-30**)



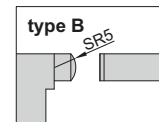
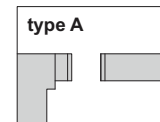
3565-25A

Code	Range	Type	Accuracy	L	b
3565-25A *	0-25mm/0-1"	A	±2µm	34.5mm	25mm
3565-50A *	25-50mm/1-2"	A	±2µm	59.5mm	32mm
3565-25BA *	0-25mm/0-1"	B	±2µm	34.5mm	25mm
3565-50BA *	25-50mm/1-2"	B	±2µm	59.5mm	32mm

* Supplied with manufacturer inspection certificate traceable to DKD Germany



Unit: mm



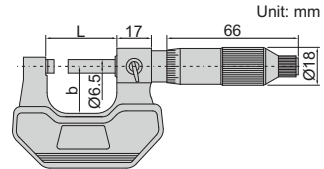
NON MAGNETIC MICROMETERS

- Suitable for magnetic materials
- Graduation: 0.01mm
- Non magnetic carbide measuring faces
- Ratchet stop

Code	Range	Accuracy	L	b
3231-25A	0-25mm	4μm	32mm	24mm
3231-50A	25-50mm	4μm	57mm	32mm
3231-75A	50-75mm	5μm	82mm	45mm
3231-100A	75-100mm	5μm	105mm	57mm

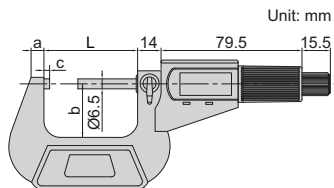


3231-25A



DIGITAL OUTSIDE MICROMETERS (BASIC TYPE, WITH DATA OUTPUT)

- Resolution 0.001mm/0.00005"
- Button function: on/off, set, mm/inch, ABS/INC
- Data output
- LR44 battery, automatic power off
- Carbide measuring faces
- Friction thimble
- Supplied with spherical anvil
- Setting standards are included (except 0-25mm/0-1")
- Optional accessory: data output cable



data output
on the back



**INSPECTION
CERTIFICATE**
TRACEABLE TO DKD

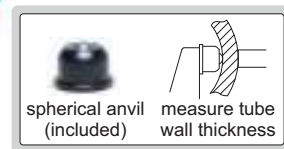
DATA
OUTPUT

Code	Range	Accuracy	L	a	b	c
3102-25 *	0-25mm/0-1"	±2µm	32	6	24	3
3102-50 *	25-50mm/1-2"	±2µm	57	8	32	3
3102-75 *	50-75mm/2-3"	±3µm	82	8	45	3
3102-100 *	75-100mm/3-4"	±3µm	107	10	57	3
3102-125	100-125mm/4-5"	±3µm	133	10	70	3
3102-150	125-150mm/5-6"	±3µm	158	10	82	3
3102-175	150-175mm/6-7"	±4µm	183	12	95	5.5
3102-200	175-200mm/7-8"	±4µm	209	12	107	5.5

(mm)



3102-50



spherical anvil
(included)

measure tube
wall thickness

Set

Code	Range	Micrometers included	Packaging
3102-753A *	0-75mm/0-3"	3102-25, 3102-50, 3102-75	blow mould case
3102-1004A *	0-100mm/0-4"	3102-25, 3102-50, 3102-75, 3102-100	blow mould case
3102-1506A	0-150mm/0-6"	3102-25, 3102-50, 3102-75, 3102-100, 3102-125, 3102-150	aluminum box

* Supplied with manufacturer inspection certificate traceable to DKD Germany



3102-753A



3102-1506A

MEASURING TIPS FOR EXTERNAL SCREW THREAD MICROMETERS

INSIZE PLUS
MADE IN EUROPE

TIPS FOR TRAPEZOIDAL, ACME
THREAD ARE ALSO AVAILABLE

ATTENTION: WHEN PITCH <0.4MM OR >63.5 TPI,
SETTING STANDARDS CANNOT BE USED TO SET ZERO,
A CALIBRATED WORK PIECE CAN BE USED INSTEAD

- Supplied in pair
- Made of hardened steel
- Suitable for **3639** series micrometers



7384-T108



60° thread angle

Code	Applicable pitch (mm)
7384-T101	0.2
7384-T102	0.225
7384-T103	0.25
7384-T104	0.3
7384-T105	0.35
7384-T106	0.4/0.45
7384-T107	0.5/0.6
7384-T108	0.7/0.75/0.8
7384-T109	1/1.25
7384-T110	1.5/1.75
7384-T111	2.0/2.5
7384-T112	3.0/3.5
7384-T113	4.0/4.5/5.0
7384-T114	5.5/6.0

55° thread angle

Code	Applicable pitch (TPI)
7384-T201	80
7384-T202	72/64
7384-T203	60/48
7384-T204	40/32
7384-T205	28/26/24/22
7384-T206	20/19/18/16
7384-T207	14/12/11
7384-T208	10/9/8
7384-T209	7/6
7384-T210	5/4.5/4
7384-T211	3.5/3.25/3/2.875/2.75
7384-T212	2.625/2.5/2

SETTING STANDARDS FOR EXTERNAL SCREW THREAD MICROMETERS



7384-A100



- Made of hardened steel
- Deviation (difference between the ordered size and the size marked on the setting standard when supplied): $\pm 20\mu\text{m}$
For example, the ordered size is 25mm, the size marked on the setting standard when supplied may be 25.015mm
- Suitable for **3639** series micrometers

60° thread angle

(mm)

Code	L	Ød	Accuracy
7384-A25	25	7.8	$\pm 2.5\mu\text{m}$
7384-A50	50	7.8	$\pm 3\mu\text{m}$
7384-A75	75	7.8	$\pm 3.5\mu\text{m}$
7384-A100	100	7.8	$\pm 4\mu\text{m}$
7384-A125	125	7.8	$\pm 4.5\mu\text{m}$
7384-A150	150	7.8	$\pm 5\mu\text{m}$
7384-A175	175	7.8	$\pm 5.5\mu\text{m}$
7384-A200	200	7.8	$\pm 6\mu\text{m}$
7384-A225	225	10	$\pm 6.5\mu\text{m}$
7384-A250	250	10	$\pm 7\mu\text{m}$
7384-A275	275	10	$\pm 7.5\mu\text{m}$
7384-A300	300	10	$\pm 8\mu\text{m}$

55° thread angle

(mm)

Code	L	Ød	Accuracy
7384-B25	25	7.8	$\pm 2.5\mu\text{m}$
7384-B50	50	7.8	$\pm 3\mu\text{m}$
7384-B75	75	7.8	$\pm 3.5\mu\text{m}$
7384-B100	100	7.8	$\pm 4\mu\text{m}$
7384-B125	125	7.8	$\pm 4.5\mu\text{m}$
7384-B150	150	7.8	$\pm 5\mu\text{m}$
7384-B175	175	7.8	$\pm 5.5\mu\text{m}$
7384-B200	200	7.8	$\pm 6\mu\text{m}$
7384-B225	225	10	$\pm 6.5\mu\text{m}$
7384-B250	250	10	$\pm 7\mu\text{m}$
7384-B275	275	10	$\pm 7.5\mu\text{m}$
7384-B300	300	10	$\pm 8\mu\text{m}$

QUICK MEASUREMENT
ONE TURN OF SLEEVE OR RATCHET
STOP MAKES 2MM SPINDLE FEED

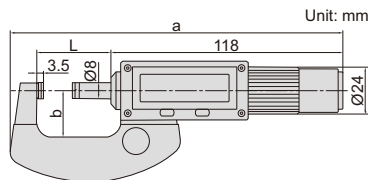
ATTENTION: SETTING
STANDARDS ARE NOT INCLUDED

DATA
OUTPUT

STROKE
30mm

IP65
WATERPROOF

NON-ROTATING
SPINDLE



HIGH PRECISION NON-ROTATING SPINDLE DIGITAL MICROMETERS

INSIZE PLUS
MADE IN EUROPE



3661-30

- Resolution: 0.01mm/0.0005", 0.001mm/0.00005", 0.0005mm/0.00002"
- Repeatability: 0.5µm
- Measuring force: 5-10N
- Flatness of measuring faces: 0.3µm
- Parallelism of measuring faces: 0.5µm
- Ratchet stop
- Non-rotating spindle, suitable for cylinders
- Quick measurement: one turn of sleeve or ratchet stop makes 2mm spindle feed
- Carbide measuring faces
- Data output
- Button function: mm/inch, max./min. value tracking, preset value, hold, on/off, zero
- CR2032 battery
- Automatic power off, turn the sleeve to turn on
- Optional accessory: setting standards (code **7386**), data output cable (code **7305-A03**, **7305-SPC4**)

(mm)

Code	Range	Accuracy		L	a	b
		Stroke ≤25mm	Stroke >25mm			
3661-30	0-30mm/0-1.18"	±2µm	±3µm	38	169	24
3661-55	25-55mm/0.98-2.17"	±2µm	±3µm	63	195	30.5
3661-80	50-80mm/1.97-3.15"	±3µm	±4µm	88	228	44
3661-105	75-105mm/2.95-4.13"	±3µm	±4µm	113	257	57
3661-130	100-130mm/3.94-5.12"	±3µm	±5µm	138	289	70
3661-155	125-155mm/4.92-6.1"	±3µm	±5µm	163	315	83
3661-180	150-180mm/5.91-7.09"	±4µm	±6µm	188	340	96
3661-205	175-205mm/6.89-8.07"	±4µm	±6µm	213	363	109
3661-230	200-230mm/7.87-9.06"	±4µm	±6µm	238	388	122
3661-255	225-255mm/8.86-10.04"	±4µm	±6µm	268	429	135
3661-280	250-280mm/9.84-11.02"	±5µm	±7µm	293	454	147.5
3661-305	275-305mm/10.83-12.01"	±5µm	±7µm	318	479	160

HIGH PRECISION DIGITAL
MICROMETERS/SNAP GAGES



NON-ROTATING
SPINDLE

ABSOLUTE ENCODER, THE ORIGINAL
DATA REMAINS AFTER POWER OFF

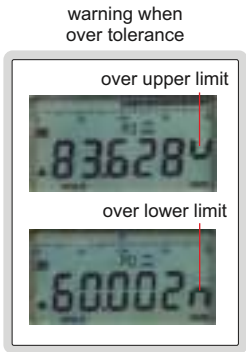
IP65
WATERPROOF

DATA
OUTPUT

ONE TURN OF SLEEVE MAKES 5MM SPINDLE FEED,
PRESS THE FORK, THE SPINDLE RETRACTS 3MM

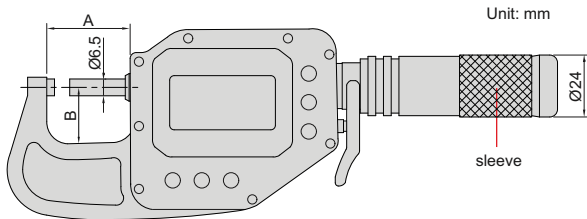
MEASUREMENT ACCURACY IS NOT
AFFECTED BY THE USE OF SLEEVE

ATTENTION: RECHARGEABLE BATTERY,
FOR 24 HOURS CONTINUOUS WORKING



3350-25

- Absolute encoder, the original data remains after power off
- Adjustable resolution: 0.0002mm/0.00001"
0.001mm/0.00005"
0.01mm/0.0005"
- One turn of sleeve makes 5mm spindle feed
- Measurement accuracy is not affected by the use of sleeve
- Press the fork, the spindle retracts 3mm
- Linear ball bearings for ten million times use
- Carbide spindle and anvil
- Measuring force 7-10N.
Customizable measuring force range 2-12N.
Attention: small measuring force will reduce the dustproof and waterproof level
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, zero, mm/inch, adjust resolution
- Supplied with gage blocks for zero setting (except 0-25mm/0-1")
- Power: rechargeable battery, for 24 hours continuous working



With data interface

Optional accessory:
wireless transmitter, code **7315-60**, wireless receiver, code **7315-2**, **7315-3**
data output cable (keyboard format), code **7302-60**
data output cable (serial port format), code **7305-G60**
(cable length 3m, optional cable length maximum 15m; RS232 protocol, optional RS485 protocol)

Code	Range	Accuracy	Repeatability	Measuring faces		A	B
				Flatness	Parallelism		
3350-25 *	0-25mm/0-1"	1.4µm	0.6µm	0.5µm	1µm	38mm	24mm
3350-50 *	25-50mm/1-2"	1.6µm	1µm	0.5µm	1µm	63mm	28mm
3350-75 *	50-75mm/2-3"	1.8µm	1µm	0.5µm	1µm	88mm	45mm
3350-100 *	75-100mm/3-3.95"	2µm	1µm	0.5µm	1µm	113mm	57mm

Built-in wireless

Optional accessory:
wireless receiver (keyboard format), code **2134-R1**
wireless receiver (serial port format), code **2134-R2**

Code	Range	Accuracy	Repeatability	Measuring faces		A	B
				Flatness	Parallelism		
3350-25WL *	0-25mm/0-1"	1.4µm	0.6µm	0.5µm	1µm	38mm	24mm
3350-50WL *	25-50mm/1-2"	1.6µm	1µm	0.5µm	1µm	63mm	28mm
3350-75WL *	50-75mm/2-3"	1.8µm	1µm	0.5µm	1µm	88mm	45mm
3350-100WL *	75-100mm/3-3.95"	2µm	1µm	0.5µm	1µm	113mm	57mm

wireless receiver
2134-R1, 2134-R2 (optional)



* Supplied with manufacturer inspection certificate

DİJİTAL KABLO KLİPS MİKROMETRESİ

IP65
TOZA/SUYAKARŞIKORUMA

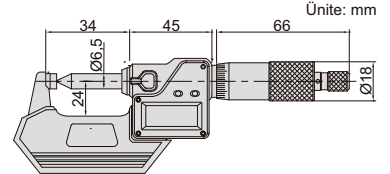
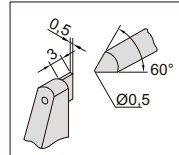
BİLGİ
ÇIKIŞI

İLGİLİ ÜRÜN: DİJİTAL KABLO
KLİPS KUMPASI (KOD 1165-150A)

- Kablo klips kalınlığı ölçülür
- Hassasiyet 0,001mm/0,00005"
- IP65 toza/suya karşı korumalı
- Tuşlar: aç/kapa, ayar, mm/inç,ABS/INC
- Bilgi çıkışı
- LR44 pil, otomatik kapanma
- Cırcırlı
- Opsiyonel aksesuar: bilgi çıkışı kablosu
(kod 7306-30A, 7302-SPC6,
7305-SPC3A, 7305-B01)



3566-25BA



Kod	Ölçüm aralığı	Doğruluk
3566-25BA	0-25mm/0-1"	±4µm

DİJİTAL DEĞİŞTİRİLEBİLİR UÇLU MİKROMETRELER

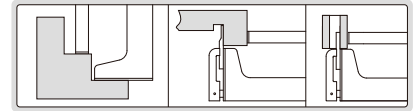
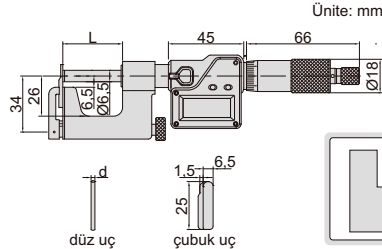
IP65
TOZA/SUYAKARŞIKORUMA

BİLGİ
ÇIKIŞI

- Boru kalınlığı, destek aralığı, kafa yüksekliği ölçülür
- Düz ve çubuk uçlarla tedarik edilir
- Hassasiyet: 0,001mm/0,0005"
- IP65 toza/suya karşı korumalı
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC
- Bilgi çıkışı
- LR44 pil, otomatik kapanma
- Cırcırlı
- Karbür ölçüm ağızları
- Sıfırlama mastarlarıyla tedarik edilir (0-25mm/0-1" hariç)
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod **7306-30A**, **7302-SPC6**, **7305-SPC3A**, **7305-B01**)



3562-25A



(mm)				
Kod	Ölçüm aralığı	Doğruluk	L	d
3562-25A	0-25mm/0-1"	±4µm	28,5	Ø3
3562-50A	25-50mm/1-2"	±4µm	53,5	Ø5

IP65

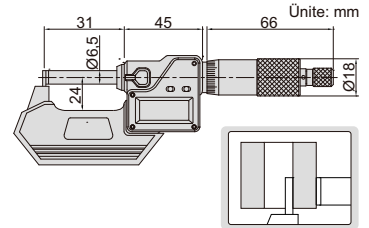
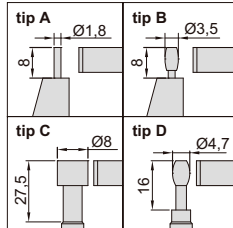
TOZA/SUYAKARŞIKORUMA

**BİLGİ
ÇIKIŞI**

- Boruların duvar kalınlığı ölçülür
- Hassasiyet 0,001mm/0,00005"
- IP65 toza/suya karşı korumalı
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC
- Bilgi çıkış
- LR44 pil, otomatik kapanma
- Cırcırlı
- Karbür ölçüm ağızları
- Sıfırlama masterları dahildir (0-25mm/0-1" hariç)
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-30A, 7302-SPC6, 7305-SPC3A, 7305-B01)

Kod	Ölçüm aralığı	Tip	Doğruluk
3561-25A	0-25mm/0-1"	A	$\pm 6\mu\text{m}$
3561-25BA	0-25mm/0-1"	B	$\pm 6\mu\text{m}$
3561-25CA	0-25mm/0-1"	C	$\pm 6\mu\text{m}$
3561-25DA	0-25mm/0-1"	D	$\pm 6\mu\text{m}$

DİJİTAL SİLİNDİRİK UÇLU BORU MİKROMETRESİ

**3561-25A**

DİJİTAL KÜRESEL BORU MİKROMETRESİ

IP65
TOZA/SUYAKARŞIKORUMA

BİLGİ
ÇIKIŞI

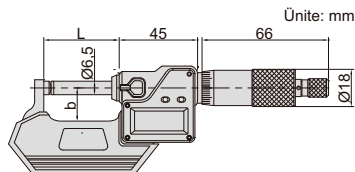
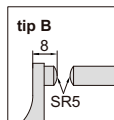
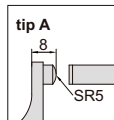
- Boruların duvar kalınlığı ölçülür
- Hassasiyet 0,001mm/0,00005"
- IP65 toza/suya karşı korumalı
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC
- Bilgi çıkış
- LR44 pil, otomatik kapanma
- Cırcırlı
- Karbür ölçüm ağızları
- Sıfırlama masterları dahildir (0-25mm/0-1" hariç)
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod 7306-30A, 7302-SPC6, 7305-SPC3A, 7305-B01)



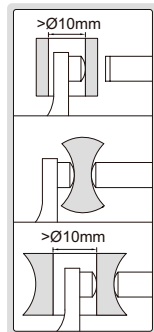
3560-25A

(mm)

Kod	Ölçüm aralığı	Tip	Doğruluk	L	b
3560-25A	0-25mm/0-1"	A	$\pm 4\mu\text{m}$	32	24
3560-50A	25-50mm/1-2"	A	$\pm 4\mu\text{m}$	57	32
3560-75A	50-75mm/2-3"	A	$\pm 5\mu\text{m}$	82	44,5
3560-100A	75-100mm/3-4"	A	$\pm 5\mu\text{m}$	107	57
3560-25SA	0-25mm/0-1"	B	$\pm 4\mu\text{m}$	32	24
3560-50SA	25-50mm/1-2"	B	$\pm 4\mu\text{m}$	57	32
3560-75SA	50-75mm/2-3"	B	$\pm 5\mu\text{m}$	82	44,5
3560-100SA	75-100mm/3-4"	B	$\pm 5\mu\text{m}$	107	57



Ünite: mm



IP65

TOZA/SUYAKARŞIKORUMA

**BİLGİ
ÇIKIŞI**

- Sac metal, plastik ve kağıdın derinlik çerçevesi için kullanılır
- Hassasiyet 0,01 mm/0,00005"
- IP65 toza/suya karşı korumalı
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC
- Bilgi çıkışı
- LR44 pil, otomatik kapanma
- Cırcırlı
- Karbür ölçüm ağızları
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod 7306-30A, 7302-SPC6, 7305-SPC3A, 7305-B01)

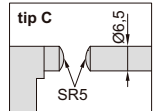
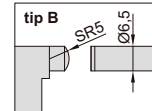
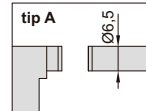
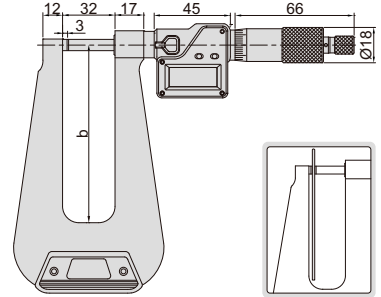
(mm)

Kod	Ölçüm aralığı	Tip	Doğruluk	b
3539-253A	0-25mm/0-1"	A	$\pm 7\mu\text{m}$	155
3539-253FA	0-25mm/0-1"	B	$\pm 7\mu\text{m}$	155
3539-254FA	0-25mm/0-1"	B	$\pm 10\mu\text{m}$	310
3539-253SA	0-25mm/0-1"	C	$\pm 7\mu\text{m}$	155

DİJİTAL SAC METAL MİKROMETRESİ

**3539-253A**

Ünite: mm



IP65
TOZA/SUYAKARŞIKORUMA

BİLGİ
ÇIKIŞI

- Oluklu şaft, yarık ve anahtar yatağı ölçümleri içindir
- Hassasiyet 0,01mm/0,00005"
- IP65 toza/suya karşı korumalı
- Tuşlar: aç/kapa, ayar, mm/inç,ABS/INC
- Bilgi çıkışı
- LR44 pil, otomatik kapanma
- Cırcırlı
- Karbür ölçüm yüzeyleri
- Sıfırlama masterları ile tedarik edilir (0-25mm hariç)
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod **7306-30A**, **7302-SPC6**, **7305-SPC3A**, **7305-B01**)

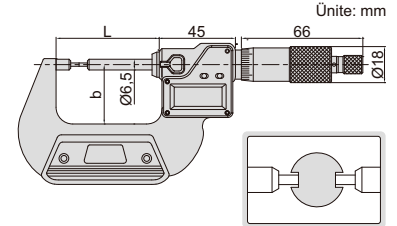
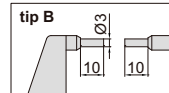
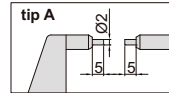
(mm)

Kod	Ölçüm aralığı	Tip	Doğruluk	L	b
3533-25A	0-25mm/0-1"	A	$\pm 4\mu\text{m}$	57	32
3533-50A	25-50mm/1-2"	A	$\pm 4\mu\text{m}$	82	44,5
3533-75A	50-75mm/2-3"	A	$\pm 5\mu\text{m}$	107	57
3533-100A	75-100mm/3-4"	A	$\pm 5\mu\text{m}$	132,6	69,5
3533-25BA	0-25mm/0-1"	B	$\pm 4\mu\text{m}$	57	32
3533-50BA	25-50mm/1-2"	B	$\pm 4\mu\text{m}$	82	44,5
3533-75BA	50-75mm/2-3"	B	$\pm 5\mu\text{m}$	107	57
3533-100BA	75-100mm/3-4"	B	$\pm 5\mu\text{m}$	132,6	69,5

DİJİTAL OLUK MİKROMETRESİ



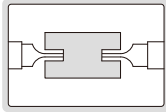
3533-25BA



SABİT BİÇAK AĞIZLI MİKROMETRE MİLİ

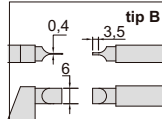
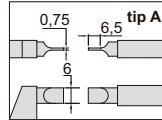
BİLGİ ÇIKIŞI

- Kanal çapı, mil ve anahtar kanalı ölçülür
- Hassasiyet 0,001mm/0,00005"
- Sabit mil
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC
- Bilgi Çıkışı
- LR44 pil, otomatik kapanma
- Cırcırlı
- Sıfırlama masterları dahildir (0-25mm/0-1" hariç)
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-30A**, **7302-SPC6**, **7305-SPC3A**, **7305-B01**)



Kod	Ölçüm aralığı	Tip	Doğruluk	L	b
3532-25A	0-25mm/0-1"	A	$\pm 4\mu\text{m}$	57	32
3532-50A	25-50mm/1-2"	A	$\pm 4\mu\text{m}$	82	44,5
3532-75A	50-75mm/2-3"	A	$\pm 5\mu\text{m}$	107	57
3532-100A	75-100mm/3-4"	A	$\pm 5\mu\text{m}$	132,6	69,5
3532-25BA	0-25mm/0-1"	B	$\pm 4\mu\text{m}$	57	32
3532-50BA	25-50mm/1-2"	B	$\pm 4\mu\text{m}$	82	44,5

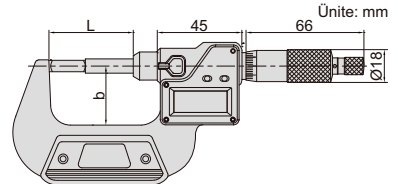
(mm)



DİJİTAL BİÇAK AĞIZLI MİKROMETRE



3532-25A



DİJİTAL SİVRİ UÇLU MİKROMETRE

- Matkap kalınlığı, küçük oluk ve anahtar kanalı ölçülür
- Hassasiyet 0,001mm/0,00005"
- IP65 toza/suya karşı korumalı
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC
- Bilgi çıkışı
- LR44 pil, otomatik kapanma
- Cırcırlı
- Karbür ağızlı
- Sıfırlama mastarları dahildir (0-25mm/0-1" hariç)
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-30A, 7302-SPC6, 7305-SPC3A, 7305-B01)

IP65
TOZA/SUYAKARŞIKORUMA

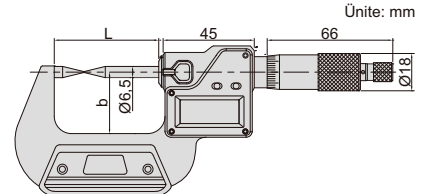
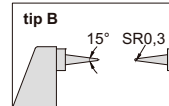
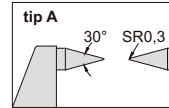
**BİLGİ
ÇIKIŞI**



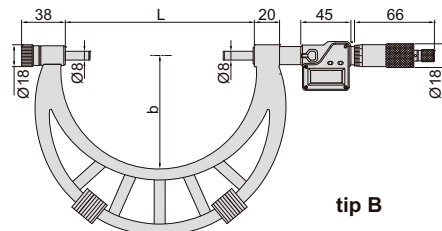
(mm)

Kod	Ölçüm aralığı	Tip	Doğruluk	L	b
3530-25A	0-25mm/0-1"	A	$\pm 4\mu\text{m}$	57	32
3530-50A	25-50mm/1-2"	A	$\pm 4\mu\text{m}$	82	44,5
3530-75A	50-75mm/2-3"	A	$\pm 5\mu\text{m}$	107	57
3530-100A	75-100mm/3-4"	A	$\pm 5\mu\text{m}$	132,6	69,5
3530-25BA	0-25mm/0-1"	B	$\pm 4\mu\text{m}$	57	32
3530-50BA	25-50mm/1-2"	B	$\pm 4\mu\text{m}$	82	44,5
3530-75BA	50-75mm/2-3"	B	$\pm 5\mu\text{m}$	107	57
3530-100BA	75-100mm/3-4"	B	$\pm 5\mu\text{m}$	132,6	69,5

3530-25A



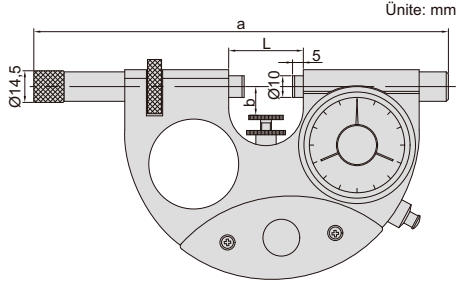
IP65
SUGEÇİRMEZ



SAATLİ PASOMETRE

INSIZE PLUS

ALMAN MALI



(mm)

Kod	Ölçüm aralığı	L	a	b
3335-25	0-25mm	35	191	<15
3335-50	25-50mm	60	215	<25
3335-75	50-75mm	84	239	<37,5
3335-100	75-100mm	110	265	<50



3335-25

IP54
SU GEÇİRMEZ



- Toplu üretim için Geçer ve geçmez masterları
- Mil geri çekme hareket mesafesi: 2,5 mm
- Komparatör saati: ölçüm aralığı $\pm 0,07\text{mm}$, hassasiyet $1\mu\text{m}$, doğruluk $\pm 1\mu\text{m}$
- Tüm aralık üzerindeki sabit ölçüm kuvveti: 8,5N
- Karbür ölçüm ağızlı
- IP54 toza/suya dayanıklı
- Komparatör saati sıfırlama, ayarlanabilir ve kilitlenebilir (kilitleme anahtarı ile tedarik edilir)
- Platform yüksekliği ayarlanabilir

- Toplu üretim için Geçer ve geçmez mastarları
- Komparatör saati: aralık $\pm 0,04\text{mm}$
hassasiyet $0,001\text{mm}$; doğruluk $0,001\text{ mm}$
- IP54 toza/suya dayanıklı
- Ölçme kuvveti: 5-10N
- Karbür ölçüm ağızları
- Sıfırlama mastarı ile tedarik edilir (0-25mm hariç)

Kod	Ölçüm aralığı	L	D
3334-25	0-25mm	28,5mm	25mm
3334-50	25-50mm	53,5mm	35mm
3334-75	50-75mm	78,5mm	47,5mm
3334-100	75-100mm	103,5mm	60mm

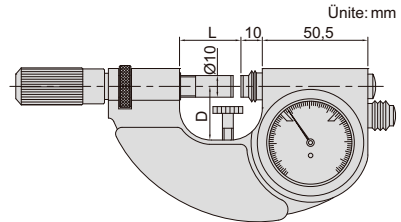


3334-25

SAATLİ PASOMETRE

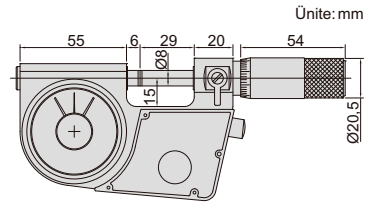
IP54
SUYA DAYANIKLI

DİKKAT:
EKONOMİK MODEL



←INSIZE→ PLUS
ALMAN MALI

- 3333-25**



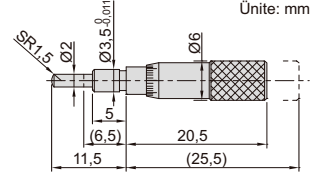
KÜÇÜK MİKROMETRE KAFASI

- Hassasiyet: 0,02 mm

Kod	Ölçüm aralığı	Gövde	Mil ucu	Doğruluk
6372-5WS	0-5mm	düz	küresel (SR1,5)	5µm



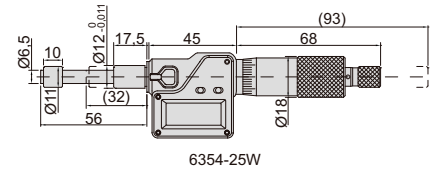
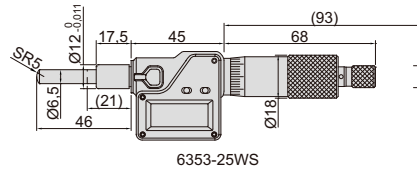
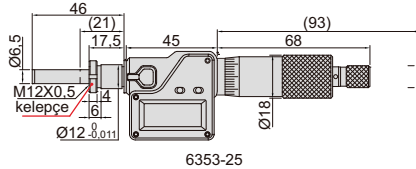
6372-5WS



- Hassasiyet 0,001mm/0,00005"
- IP65 toza/suya dayanıklı
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC
- Bilgi çıkışı
- LR44 pil, otomatik kapanma
- Cırcırlı
- Opsiyonel aksesuar: bilgi çıkışı kablosu (kod 7306-30A, 7302-SPC6, 7305-SPC3A, 7305-B01)



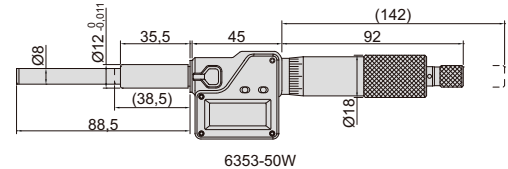
6353-25W



Ünite: mm

Dönen mil

Kod	Ölçüm aralığı	Gövde	Mil ucu	Doğruluk
6353-25	0-25mm/0-1"	kelepçeli	düz (karbür)	±2µm
6353-25W	0-25mm/0-1"	düz	düz (karbür)	±2µm
6353-25S	0-25mm/0-1"	kelepçeli	küresel (SR5)	±2µm
6353-25WS	0-25mm/0-1"	düz	küresel (SR5)	±2µm
6353-50W	0-50mm/0-2"	düz	düz (karbür)	±4µm



Sabit mil

Kod	Ölçüm aralığı	Gövde	Mil ucu	Doğruluk
6354-25W	0-25mm/0-1"	düz	düz	±2µm

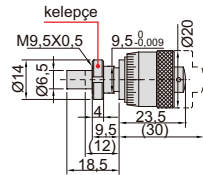
BÜYÜK TAMBURLU MİKROMETRE KAFASI

- DIN863-2 Standardına uygundur
- Kolay okuma için büyük tamburların çapını ölçer
- Hassasiyet: 0,01 mm
- Doğruluk 3µm

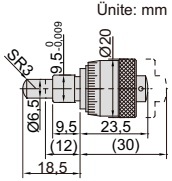
Kod	Ölçüm aralığı	Gövde	Mil ucu
6373-65	0-6,5mm	kelepçeli	düz
6373-65W	0-6,5mm	düz	düz
6373-65S	0-6,5mm	kelepçeli	küresel (SR3)
6373-65WS	0-6,5mm	düz	küresel (SR3)
6373-13	0-13mm	kelepçeli	düz
6373-13W	0-13mm	düz	düz



6373-65



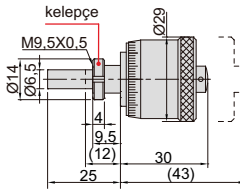
6373-65



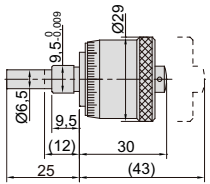
6373-65WS



6373-13



6373-13



6373-13W

DIŞ VİDA MİKROMETRESİ

INSIZE PLUS
ALMAN MALI

- DIN863-3 Standardına uygundur
- Vida adımı çapı ölçer
- Hassasiyet 0,01mm
- Cırcırlı
- Opsiyonel aksesuar:
dış vida mikrometre için ölçüm ucu (kod 7384)

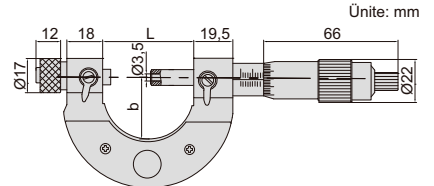
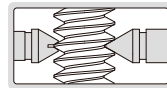
(mm)

Kod	Ölçüm aralığı	Doğruluk	L	b
3639-25	0-25mm	4µm	45	31
3639-50	25-50mm	4µm	70	35
3639-75	50-75mm	5µm	95	48,5
3639-100	75-100mm	5µm	120	60
3639-125	100-125mm	6µm	145	72,5
3639-150	125-150mm	6µm	170	80
3639-175	150-175mm	7µm	195	97,5
3639-200	175-200mm	7µm	220	110
3639-225	200-225mm	8µm	245	122

uçlar dahil değildir



3639-25

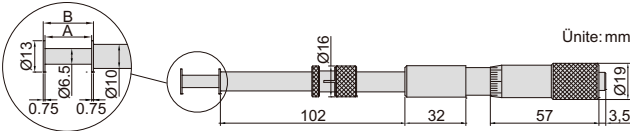
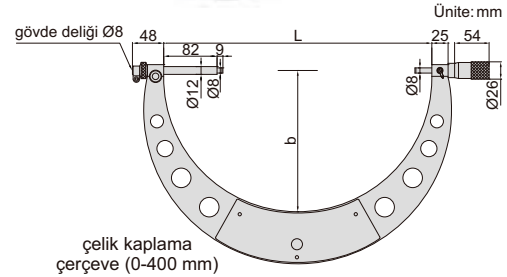


- DIN863-3 standardına uygundur
- Mikrometre kafası hassasiyeti: 0,001mm
- Farklı ölçüm aralıkları için uç ayarlanır
- Miil geri çekme hareket aralığı: 3mm
- Karbür ölçüm ağızları
- Opsiyonel aksesuar: komparatör saati ya da dijital komparatör saati, sıfırlama mastarı

komparatör saati
dahil değildir

(mm)

Kod	Ölçüm aralığı	Mikrometre kafa aralığı	Çerçeve tip	L	b
3633-100	0-100mm	25mm	çelik plaka	116	65
3633-200	100-200mm	25mm	çelik plaka	217	109
3633-300	200-300mm	25mm	çelik plaka	317	159
3633-400	300-400mm	25mm	çelik plaka	417	209
3633-500	400-500mm	25mm	çelik tüp	517	259
3633-600	500-600mm	25mm	çelik tüp	617	310
3633-700	600-700mm	25mm	çelik tüp	717	360
3633-800	700-800mm	25mm	çelik tüp	817	408
3633-900	800-900mm	25mm	çelik tüp	917	460
3633-1000	900-1000mm	25mm	çelik tüp	1017	512



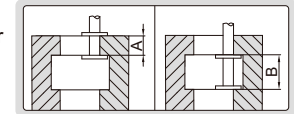
KANAL MİKROMETRESİ



3287-25A

Kod	Ölçüm aralığı (dış A)	Ölçüm aralığı (iç B)	Doğruluk
3287-25A	0-25mm	1,6-26,5mm	10µm
3287-50A	25-50mm	26,5-51,5mm	10µm
3287-75A	50-75mm	51,5-76,5mm	10µm
3287-100A	75-100mm	76,5-101,5mm	10µm

- Hassasiyet 0,01 mm
- Delik içi aralıkların genişliğini ölçer
- Sabit millî
- İç ve dış ölçümler için iki hassasiyet vardır



HIZLI ÖLÇÜM:

KILIFI ÇEVİRMEK YA DA CIRCIR, MILİ 1MM YAPAR

KALDIRAÇ CİHAZI TOPLU
ÜRETİME UYGUNDUR

SABİT MİL

BİLGİ
ÇIKIŞI

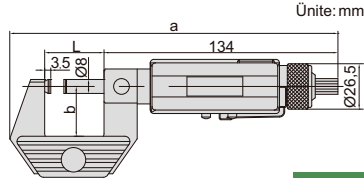
- Çözünürlük: 0,01mm/0,0005"
- Tekrarlanabilirlik: 1µm
- Ölçme kuvveti: 5-10N
- Kaldıraç cihazı toplu üretime uygundur
- Sabit mil, silindirler için uygundur
- Hızlı ölçüm: kılıfı çevirmek ya da cırcır, mili 1mm yapar
- Karbür ağızlı ölçüm uçları
- Cırcırlı
- Bilgi çıkışı
- Tuşlar: mm/inç, max./min., değer bulma, tolerans ölçümü, bekle, aç/kapa, sıfırla
- CR2032 Pil, otomatik kapanma

SABİT MİLLİ DİJİTAL MİKROMETRE

INSIZE PLUS
ALMAN MALI



3632-25



kaldıraç

mili hareket ettirmek için
kaldıraca basın,
Mili urdurmak için de bırakın,
Ölçme kuvveti sabittir,

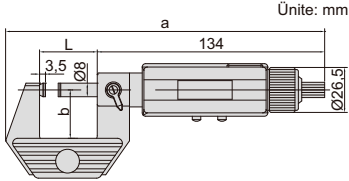
geri çekme hareketi
1,5mm (max,)



(mm)

Kod	Ölçüm aralığı	Doğruluk	L	a	b
3632-25	0-25mm/0-1"	±2µm	34	134	28,5

HIZLI ÖLÇÜM:
KILIFI ÇEVİRMEK YA DA CIRCIR, MILI 1MM YAPAR



- Çözünürlük: 0,01mm/0,0005"
- Tekrarlanabilirlik: 1µm
- Ölçme kuvveti: 5-10N
- Sabit mil, silindirler için uygundur
- Hızlı ölçüm: kılıfı çevirmek ya da circir, mili 1mm yapar karbür ağızlı ölçüm uçları
- Cırcırlı, bilgi çıkışı
- Tuşlar: mm/inç, max./min., değer bulma, tolerans ölçümü, bekle, aç/kapa, sıfırla
- CR2032 Pil, otomatik kapanma
- Sıfırlama mastarı ile tedarik edilir (0-25mm/0-1" hariç)

SABİT MİLLİ DİJİTAL MİKROMETRE

INSIZE PLUS
ALMAN MALI

SABİT MİL

BİLGİ
ÇIKIŞI



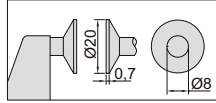
3631-25

(mm)					
Kod	Ölçüm aralığı	Doğruluk	L	a	b
3631-25	0-25mm/0-1"	±2µm	34	188	28,5
3631-50	25-50mm/1-2"	±2µm	59	211	30
3631-75	50-75mm/2-3"	±3µm	84	240	44
3631-100	75-100mm/3-4"	±3µm	109	264	56
3631-125	100-125mm/4-5"	±3µm	134	289	76
3631-150	125-150mm/5-6"	±3µm	160	314	89

DİJİTAL SABİT MİLLİ DİSK MİKROMETRELERİ (EKONOMİK MODEL)



VIDEO



- Dişlilerin diş taban genişliğini ölçer
- Hassasiyet 0,01mm/0,00005"
- Sabit mil
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC
- Bilgi çıkışı
- LR44 pil, otomatik kapanma
- Cırcırlı
- Sıfırlama masterları ile tedarik edilir
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod 7306-30A, 7302-SPC6, 7305-SPC3A, 7305-B01)

(mm)

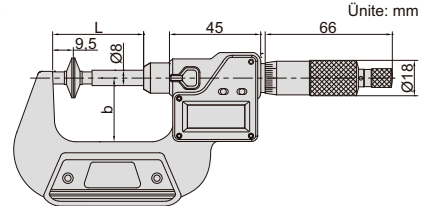
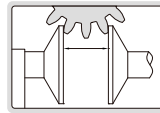
Kod	Ölçüm aralığı	Doğruluk	Senkronizasyon	L	b
3594-25A	0-25mm/0-1"	±4µm	5µm	43	32
3594-50A	25-50mm/1-2"	±4µm	5µm	68	44,5
3594-75A	50-75mm/2-3"	±5µm	5µm	93	57
3594-100A	75-100mm/3-4"	±5µm	5µm	118,5	70



SABİT MİL

BİLGİ
ÇIKIŞI

3594-25A

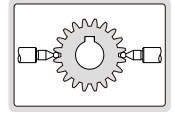


DİJİTAL MODÜL MİKROMETRESİ

IP65
TOZA/SUYAKARŞIKORUMA

**BİLGİ
ÇIKIŞI**

bilya uçlar dahil değildir

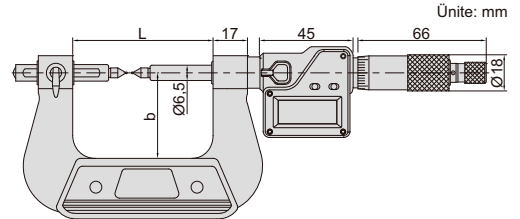


3591-25A

- Çark çapı ölçülür
- Çözünürlük: 0,01mm/0,0005"
- IP65 toza/suya karşı koruma
- Tuşlar: açma/kapama, ayar, mm/inch, ABS/INC
- Bilgi çıkışı
- LR44 pil, otomatik kapatma
- Cırcırlı
- Sıfırlama masterları dahildir (0-25mm/0-1" hariç)
- Opsiyonel aksesuar: bilya uçlar (kod 7391), bilgi çıkış kablosu (kod **7306-30A**, **7302-SPC6**, **7305-SPC3A**, **7305-B01**)

(mm)

Kod	Ölçüm aralığı	Doğruluk	L	b
3591-25A	0-25mm/0-1"	$\pm 4\mu\text{m}$	67	38
3591-50A	25-50mm/1-2"	$\pm 4\mu\text{m}$	92,4	50
3591-75A	50-75mm/2-3"	$\pm 5\mu\text{m}$	117,6	62
3591-100A	75-100mm/3-4"	$\pm 5\mu\text{m}$	143	70



DİJİTAL V-UÇLU MİKROMETRE

- 3 veya 5 Ağızlı kesici takımların dış çapını ölçer (rayba, freze, kılavuz gibi)
- Hassasiyet 0,01mm/0,00005"
- IP65 toza/suya karşı korumalı
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC
- Bilgi çıkış
- LR44 pil, otomatik kapanma
- Cırcırlı
- Karbür ölçüm yüzeyleri
- Sıfırlama masterları ile tedarik edilir
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-30A, 7302-SPC6, 7305-SPC3A, 7305-B01)

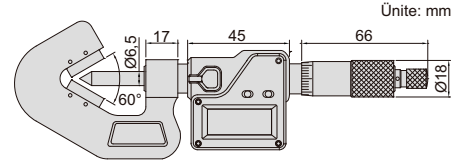
IP65
TOZA/SUYAKARŞIKORUMA

**BİLGİ
ÇIKIŞI**



3590-153A

Kod	Ölçüm aralığı	Ağızlı	Doğruluk
3590-153A	1-15mm/0,04-0,6"	3	$\pm 4\mu\text{m}$
3590-203A	5-20mm/0,2-0,8"	3	$\pm 4\mu\text{m}$
3590-353A	20-35mm/0,8-1,4"	3	$\pm 5\mu\text{m}$
3590-503A	35-50mm/1,4-2,0"	3	$\pm 5\mu\text{m}$



İLGİLİ ÜRÜN: DİJİTAL FREN DİSK VE BALATA KUMPASI,
DİJİTAL DİSK KUMPASI (KOD 1162-125A, 1167-150A, 1168-300A)

BİLGİ
ÇIKIŞI

DİJİTAL FREN DİSK MİKROMETRESİ

IP65
TOZA/SUYAKARŞIKORUMA

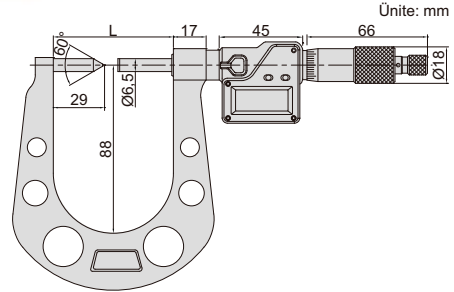
- Fren diski kalınlığı ölçülür
- Hassasiyet 0,001mm/0,00005"
- IP65 toza/suya karşı korumalı
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC
- Bilgi çıkışı
- LR44 pil, otomatik kapanma
- Cırcırlı
- Karbür ölçüm ağızları
- Sıfırlama masterları dahildir
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod 7306-30A, 7302-SPC6, 7305-SPC3A, 7305-B01)

(mm)

Kod	Ölçüm aralığı	Doğruluk	L
3588-33A	7,6-33mm/0,3-1,3"	$\pm 5\mu\text{m}$	64,5
3588-50A	25-50mm/1-2"	$\pm 5\mu\text{m}$	82



3588-33A



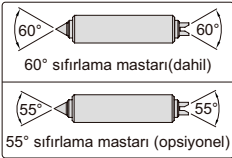
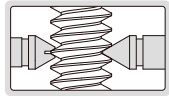
DİJİTAL VİDA MİKROMETRESİ

BİLGİ ÇIKIŞI

DÖNMEYEN MİL

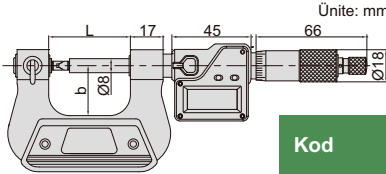
- Vida dişi adımı ölçülür
- Çözünürlük 0,001mm/0,00005"
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC
- Bilgi çıkış
- LR44 pil, otomatik kapanma
- Dönmeyen mil
- Cırcırlı
- 60° sıfırlama masterları ile tedarik edilir
- Opsiyonel aksesuar: 55° sıfırlama masterları, ölçüm uçları (kod 7381), bilgi çıkış kablosu (kod 7306-30A, 7302-SPC6, 7305-SPC3A, 7305-B01)

ölçüm uçları dahil değildir



uçları ile mikrometrenin doğruluğu (mm)

Diş adımı	Ölçüm aralığı			
	0-25	25-50	50-75	75-100
0,4~0,5	±0,01	-	-	-
0,6~0,8	±0,01	±0,013	-	-
1~1,25	±0,012	±0,015	±0,017	±0,017
1,5~2,0	±0,014	±0,017	±0,019	±0,019
2,5~3,5	±0,016	±0,019	±0,021	±0,021
4,0~7,0	-	±0,021	±0,023	±0,023



Kod	Ölçüm aralığı	L	b	55° sıfırlama masterı (opsiyonel)
3581-25A	0-25mm/0-1"	42	26	-
3581-50A	25-50mm/1-2"	67	38	3281-SP1
3581-75A	50-75mm/2-3"	92	50	3281-SP2
3581-100A	75-100mm/3-4"	117,6	62	3281-SP3

SABİT MİL

BİLGİ
ÇIKIŞI

- Hassasiyet 0,01mm/0,00005"
- IP65 toza/suya karşı korumalı
- Tuşlar: aç/kapa, ayar, mm/inç, ABS/INC
- Bilgi çıkışı
- LR44 pil, otomatik kapanma
- Cırcırlı
- 7 çift yatak/mil ucu ile tedarik edilir (**3280** serisinden aynı)
- Sıfırlama mastarı dahildir (0-25mm hariç)
- Opsiyonel aksesuar: 55° yatak/mil ucu (kod **3280-SP1** ve **3280-SP2**), **3280** serisinden aynı, bilgi çıkış kablosu (kod **7306-30A**, **7302-SPC6**, **7305-SPC3A**, **7305-B01**)

Kod	Ölçüm aralığı	Doğruluk	L	b
3580-25A	0-25mm/0-1"	$\pm 4\mu\text{m}$	42	26
3580-50A	25-50mm/1-2"	$\pm 4\mu\text{m}$	67	38

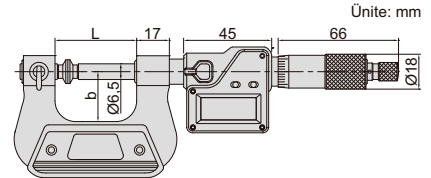
(mm)

DİJİTAL UNIVERSAL MİKROMETRELER



3580-25A

7 çift yatak/mil ucu ile tedarik edilir
(3280 serisinden aynı)



Ünite: mm

SİVRİ UÇLU MİKROMETRE

- Matkap kalınlığı, küçük oluk ve anahtar kanalı ölçülür
- Hassasiyet 0,01mm
- Cırcırlı
- Karbür Ölçüm ucu
- Sıfırlama mastarları dahildir (0-25mm hariç)

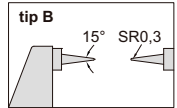
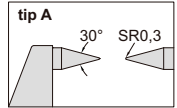


3230-25A

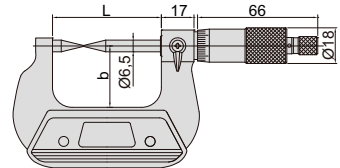
(mm)

Kod	Ölçüm aralığı	Tip	Doğruluk	L	b
3230-25A	0-25mm	A	4µm	57	32
3230-50A	25-50mm	A	4µm	82	44,5
3230-75A	50-75mm	A	5µm	107	57
3230-100A	75-100mm	A	5µm	132,6	69,5
3230-25BA	0-25mm	B	4µm	57	32
3230-50BA	25-50mm	B	4µm	82	44,5
3230-75BA	50-75mm	B	5µm	107	57
3230-100BA	75-100mm	B	5µm	132,6	69,5

Ünite: mm

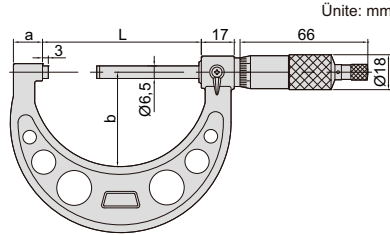


Ünite: mm



UZUN MİLLİ DIŞ ÇAP MİKROMETRESİ

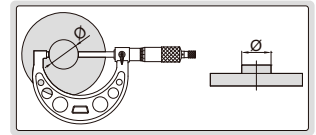
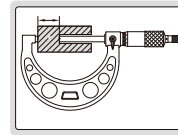
- Hassasiyet: 0,01mm
- Karbür ölçüm ağızları
- DIN863-1 standardına uygundur
- Cırcırlı
- Sıfırlama mastarları ile tedarik edilir (0-25mm hariç)



3209-25

(mm)

Kod	Ölçüm aralığı	Doğruluk	L	a	b
3209-25	0-25mm	4µm	57	14	38
3209-50	25-50mm	4µm	82	15	49
3209-75	50-75mm	5µm	107	15	60
3209-100	75-100mm	5µm	133	16,5	73



HIZLI BESLEME MİKROMETRELERİ

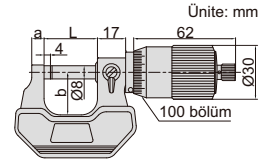
- Hassasiyet 0,01 mm
- Her tur 1mm besleme
- Tambur
- Karbür ölçüm ağızları
- DIN863-1 Standardına uygundur
- Sıfırlama mastarları ile tedarik edilir (0-25mm hariç)

(mm)

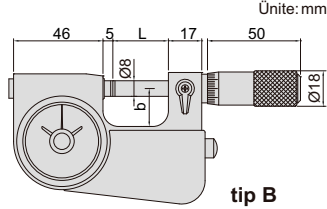
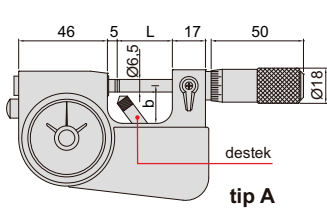
Kod	Ölçüm aralığı	Doğruluk	L	a	b
3208-25B	0-25mm	4 μ m	32	6	24
3208-50B	25-50mm	4 μ m	57	8	32
3208-75B	50-75mm	5 μ m	82	8	45
3208-100B	75-100mm	5 μ m	107	8	57



3208-25B



SAATLİ MİKROMETRE



- DIN863-3 standardına uygundur
- Mikrometre kafası hassasiyeti: 0,002mm
- Komparatör saati: ölçüm aralığı $\pm 0,04$ mm, hassasiyet 0,001mm; doğruluk 0,001mm
- Karbür ölçüm ağızları
- Sıfırlama masterları dahildir (0-25mm hariç)

Kod	Mikrometre kafa aralığı	Mikrometre kafa doğruluğu	Tip	L	b	Açıklama
3332-25	0-25mm	4 μ m	A	28,5	19	destekli
3332-50	25-50mm	4 μ m	A	53,5	30	destekli
3332-75	50-75mm	5 μ m	A	78,5	45	desteksiz
3332-100	75-100mm	5 μ m	A	103,5	57	desteksiz
3332-25B	0-25mm	4 μ m	B	28,5	19	desteksiz



3332-25



3332-25B

KOMPARATÖR SAATLİ MİKROMETRE

**DİKKAT: 0,001 MM KOMPARATÖR
İÇİN UYGUN DEĞİLDİR**

- DIN863-3 standardına uygundur
- Mikrometre kafası hassasiyeti: 0,002mm
- Milil geri çekme hareket aralığı: 8 mm
- Karbür ölçüm ağızları
- Sıfırlama mastarları dahildir (0-25mm hariç)
- Opsiyonel aksesuar: komparatör saati (hassasiyet 0,01 mm), dijital komparatör saati (hassasiyet 0,01mm/0,0005")

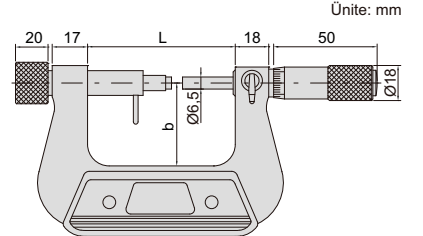


komparatör saati
dahil değildir

3331-25A

Kod	Mikrometre kafa aralığı	Mikrometre kafa doğruluğu	L	b
3331-25A	0-25mm	4μm	67	38
3331-50A	25-50mm	4μm	92,4	50
3331-75A	50-75mm	5μm	117,6	62
3331-100A	75-100mm	5μm	143	70
3331-125A	100-125mm	6μm	168,2	82
3331-150A	125-150mm	6μm	192	94,5
3331-175A	150-175mm	7μm	217	107

(mm)



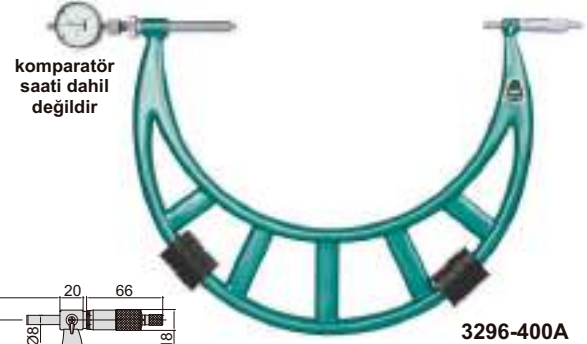
**DİKKAT: 0,001 mm KOMPARATÖR
İÇİN UYGUN DEĞİLDİR**

KOMPARATÖR SAATLİ MİKROMETRE



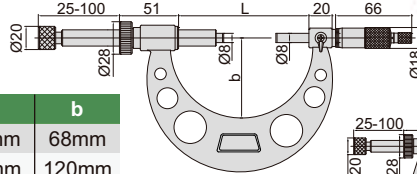
3296-100A

- DIN863-3 standardına uygundur
- Hassasiyet: 0,01 mm
- Cırcırlı
- Karbür ölçüm ağızları
- Sıfırlama masterları dahildir (0-25mm hariç)
- Opsiyonel aksesuar:
komparatör saati (hassasiyet 0,01mm)
dijital komparatör saati
(hassasiyet 0,01mm/0,0005")

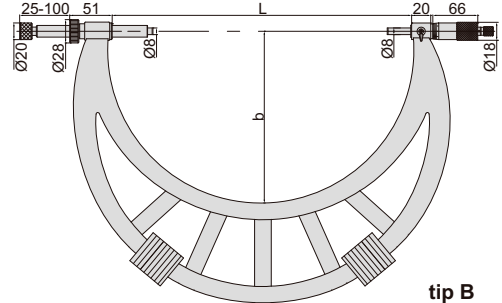


3296-400A

Ünite: mm



tip A

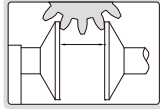


tip B

Kod	Ölçüm aralığı	Tip	Doğruluk	L	b
3296-100A	0-100mm	A	6µm	115mm	68mm
3296-200A	100-200mm	A	7µm	215mm	120mm
3296-300A	200-300mm	A	8µm	315mm	170mm
3296-400A	300-400mm	B	9µm	415mm	225mm
3296-500A	400-500mm	B	10µm	515mm	275mm
3296-600A	500-600mm	B	11µm	615mm	325mm
3296-700A	600-700mm	B	12µm	715mm	375mm
3296-800A	700-800mm	B	13µm	815mm	430mm
3296-900A	800-900mm	B	14µm	915mm	480mm
3296-1000A	900-1000mm	B	15µm	1015mm	530mm

SABİT MİLLİ DİSK MİKROMETRELERİ (EKONOMİK MODEL)

- DIN863-3 Standardına uygundur
- Dişlilerin diş taban genişliğini ölçer
- Hassasiyet 0,01mm
- Sabit mil
- Cırcırlı
- Sıfırlama masterları ile tedarik edilir

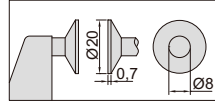


(mm)

Kod	Ölçüm aralığı	Doğruluk	Senkronizasyon	L	b
3294-25	0-25mm	4µm	5µm	34	24
3294-50	25-50mm	4µm	5µm	59	32
3294-75	50-75mm	5µm	5µm	85	45
3294-100	75-100mm	5µm	5µm	110	57



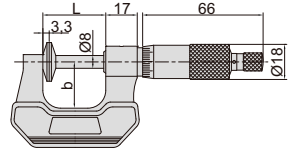
3294-25



SABİT MİL



Ünite: mm



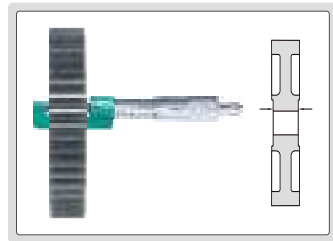
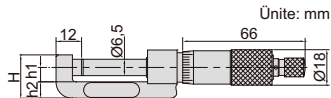
TEKERLEK MİKROMETRELER

- DIN863-3 standardına uygundur
- Tekerlek kalınlığı ve boru içindeki destekler ölçülür
- Hassasiyet 0,01 mm
- Cırcırlı
- Karbür ölçüm ağızları
- Sıfırlama masterları ile tedarik edilir (0-25 mm hariç)



3292-25

Kod	Ölçüm aralığı	Doğruluk	h1	h2	H (mm)
3292-25	0-25mm	4µm	6	9	18,7
3292-50	25-50mm	4µm	6,5	11	21,2
3292-75	50-75mm	5µm	6,5	11	21,2
3292-100	75-100mm	5µm	6,5	11	21,2



DIŞLİ ÇARK MİKROMETRESİ

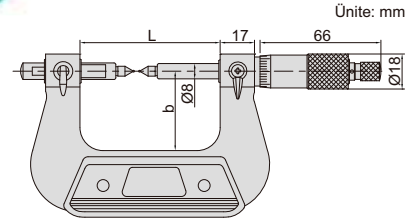
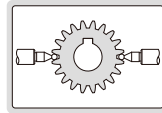
- DIN863-3 Standardına uygundur
- Çark çapı ölçülür
- Hassasiyet 0,01 mm
- Cırcırlı
- Sıfırlama masterları dahildir (0-25mm hariç)
- Opsiyonel aksesuar: bilya uçlar (kod **7391**)

(mm)				
Kod	Ölçüm aralığı	Doğruluk	L	b
3291-25	0-25mm	4µm	67	38
3291-50	25-50mm	4µm	92,4	50
3291-75	50-75mm	5µm	117,6	62
3291-100	75-100mm	5µm	143	70
3291-125	100-125mm	6µm	168,2	82
3291-150	125-150mm	6µm	192	94,5
3291-175	150-175mm	7µm	217	107

bilya uçlar dahil değildir



3291-25



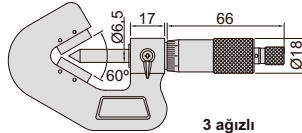
V-UÇLU MİKROMETRE

- DIN863-3 Standardına uygundur
- 3 veya 5 Ağızlı kesici takımların dış çapını ölçer (rayba, freze, kılavuz gibi)
- Hassasiyet 0,01mm
- Cırcırlı
- Karbür ölçüm yüzeyleri
- Sıfırlama masterları ile tedarik edilir

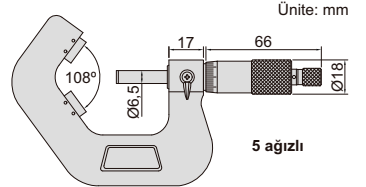
Kod	Ölçüm aralığı	Ağızlı	Doğruluk
3290-153A	1-15mm	3	4µm
3290-203A	5-20mm	3	4µm
3290-353A	20-35mm	3	5µm
3290-503A	35-50mm	3	5µm
3290-653A	50-65mm	3	6µm
3290-803A	65-80mm	3	6µm
3290-953A	80-95mm	3	7µm
3290-255A	5-25mm	5	4µm
3290-455A	25-45mm	5	5µm
3290-655A	45-65mm	5	6µm
3290-855A	65-85mm	5	7µm



3290-153A



3 ağızlı



5 ağızlı

Ünite: mm

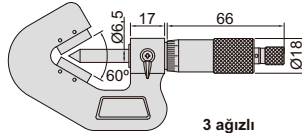
V-UÇLU MİKROMETRE

- DIN863-3 Standardına uygundur
- 3 veya 5 Ağızlı kesici takımların dış çapını ölçer (rayba, freze, kılavuz gibi)
- Hassasiyet 0,01mm
- Cırcırlı
- Karbür ölçüm yüzeyleri
- Sıfırlama masterları ile tedarik edilir

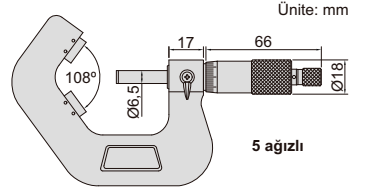
Kod	Ölçüm aralığı	Ağızlı	Doğruluk
3290-153A	1-15mm	3	4µm
3290-203A	5-20mm	3	4µm
3290-353A	20-35mm	3	5µm
3290-503A	35-50mm	3	5µm
3290-653A	50-65mm	3	6µm
3290-803A	65-80mm	3	6µm
3290-953A	80-95mm	3	7µm
3290-255A	5-25mm	5	4µm
3290-455A	25-45mm	5	5µm
3290-655A	45-65mm	5	6µm
3290-855A	65-85mm	5	7µm



3290-153A



3 ağızlı



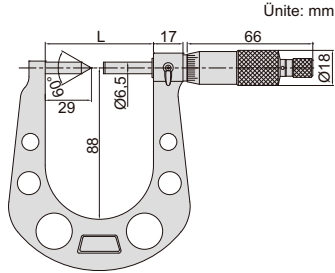
5 ağızlı

Ünite: mm

FREN DİSK MİKROMETRESİ

İLGİLİ ÜRÜN: DİJİTAL FREN DİSK VE BALATA KUMPASI,
DİJİTAL DİSK KUMPASI (KOD 1162-125A, 1167-150A, 1168-300A)

- Fren diski kalınlığı ölçülür
- Hassasiyet: 0,01mm
- Cırcırlı
- Karbür ölçüm ağızları
- Sıfırlama masterları dahildir

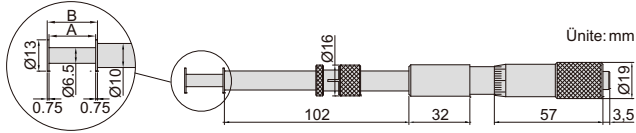


Kod	Ölçüm aralığı	Doğruluk	L
3288-33A	7,6-33mm	5µm	64,5mm
3288-50A	25-50mm	5µm	82mm



3288-33A

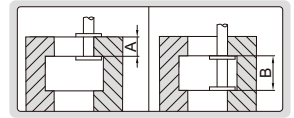




KANAL MİKROMETRESİ

3287-25A

- Hassasiyet 0,01 mm
- Delik içi aralıkların genişliğini ölçer
- Sabit milli
- İç ve dış ölçümler için iki hassasiyet vardır



Kod	Ölçüm aralığı (dış A)	Ölçüm aralığı (iç B)	Doğruluk
3287-25A	0-25mm	1,6-26,5mm	10µm
3287-50A	25-50mm	26,5-51,5mm	10µm
3287-75A	50-75mm	51,5-76,5mm	10µm
3287-100A	75-100mm	76,5-101,5mm	10µm

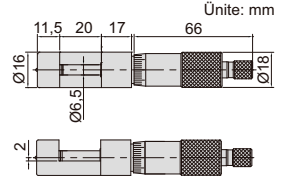
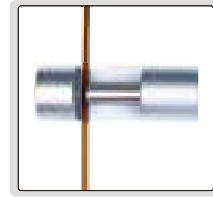
TEL MİKROMETRE

- DIN863-3 standardına uygundur
- Tel ve küçük uç çapları ölçülür
- Hassasiyet 0,01 mm
- Cırcırlı
- Karbür ölçüm ağızları

Kod	Ölçüm aralığı	Doğruluk
3285-10	0-10mm	4μm

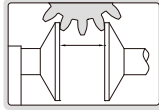


3285-10



DİSK MİKROMETRESİ (EKONOMİK MODEL)

- DIN863-3 Standardına uygundur
- Dişlilerin diş taban genişliğini ölçer
- Hassasiyet 0,01mm
- Cırcırlı
- Sıfırlama mastarları ile tedarik edilir



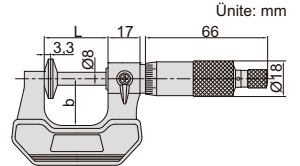
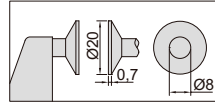
(mm)

Kod	Ölçüm aralığı	Doğruluk	Senkronizasyon	L	b
3282-25	0-25mm	4µm	5µm	34	24
3282-50	25-50mm	4µm	5µm	59	32
3282-75	50-75mm	5µm	5µm	85	45
3282-100	75-100mm	5µm	5µm	110	57



VIDEO

3282-25



VİDA MİKROMETRESİ

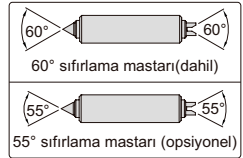
- Vida dişi adımı ölçülür
- Hassasiyet 0,001mm
- Dönmeyen mil
- Cırcırlı
- 60° sıfırlama masterları ile tedarik edilir
- Opsiyonel aksesuar: 55° sıfırlama masterları, ölçüm uçları (kod **7381**)

ölçüm uçları dahil değildir

DÖNMİYEN MİL

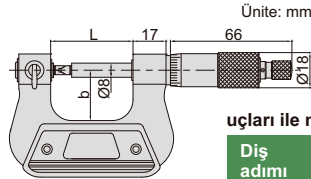


3281-25A



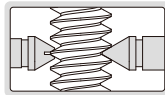
(mm)

Kod	Ölçüm aralığı	L	b	55° sıfırlama masterı (opsiyonel)
3281-25A	0-25mm	42	26	—
3281-50A	25-50mm	67	38	3281-SP1
3281-75A	50-75mm	92	50	3281-SP2
3281-100A	75-100mm	117,6	62	3281-SP3
3281-125A	100-125mm	143	70	3281-SP4
3281-150A	125-150mm	168,2	82	3281-SP5
3281-175A	150-175mm	192	94,5	3281-SP6
3281-200A	175-200mm	217	107	3281-SP7



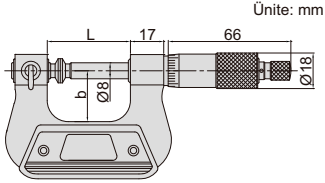
uçları ile mikrometrenin doğruluğu (mm)

Diş adımı	Ölçüm aralığı					
	0-25	25-50	50-75	75-100	100-125	125-200
0,4~0,5	±0,01	-	-	-	-	-
0,6~0,8	±0,01	±0,013	-	-	-	-
1~1,25	±0,012	±0,015	±0,017	±0,017	-	-
1,5~2,0	±0,014	±0,017	±0,019	±0,019	±0,020	±0,023
2,5~3,5	±0,016	±0,019	±0,021	±0,021	±0,023	±0,025
4,0~7,0	-	±0,021	±0,023	±0,023	±0,025	±0,028



SABİT MİL

SABİT DÖNMEYEN MİLLİ UNİVERSAL MİKROMETRE



- DIN863-3 Standardına uygundur
- Hassasiyet 0,01mm
- Sabit Dönmeyen Milli
- Cırcırlı
- 7 çift yatak/mil ucu ile tedarik edilir
- Sıfırlama mastarı dahildir (0-25mm hariç)
- Opsiyonel aksesuar: 55° yatak/mil ucu (kod 3280-SP1 ve 3280-SP2)

Kod	Ölçüm aralığı	Doğruluk	L	b
3280-25A	0-25mm	4µm	42	26
3280-50A	25-50mm	4µm	67	38



3280-25A

55° yatak/mil ucu (opsiyonel)

kod 3280-SP1 Keskin kenar	0.35 55°	Ünite: mm
kod 3280-SP2 Sivri	Ø0.3 55°	Ünite: mm

Yatak/mil ucu (dahil)

Ünite: mm

Düz	Ø6.5	
Küresel	SR5 Ø6.5	
Oluk	Ø2	
Disk	Ø12	
Bıçak	0.7	
Keskin kenar	0.35 60°	
Sivri	Ø0.3 60°	

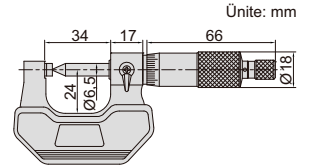
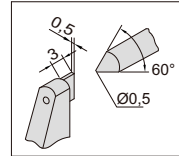
KABLO KLİPS MİKROMETRESİ



3266-25BA

- Kablo klips kalınlığı ölçülür
- Hassasiyet 0,001mm
- Cırcırlı

Kod	Ölçüm aralığı	Doğruluk
3266-25BA	0-25mm	4µm

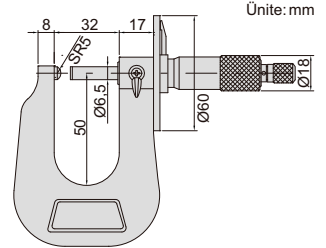
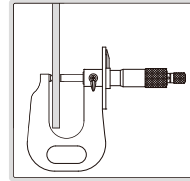


SAC METAL MİKROMETRESİ

- DIN863-3 Standardına uygundur
- Sac metal, plastik ve kağıdın derinlik çerçevesi için kullanılır
- Hassasiyet 0,01 mm
- Cırcırlı
- Karbür ölçüm ağızları



3263-25A



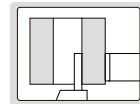
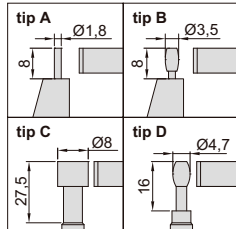
Kod	Ölçüm aralığı	Doğruluk
3263-25A	0-25mm	4µm

SİLİNDİRİK UÇLU BORU MİKROMETRESİ

- Boruların duvar kalınlıđını ölçer
- Hassasiyet 0,01mm
- Cırcırlı
- Karbür uçlu mil
- Sıfırlama mastarları ile tedarik edilir (0-25mm hariç)

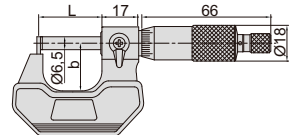


					(mm)
Kod	Ölçüm aralığı	Tip	Doğruluk	L	b
3261-25A	0-25mm	A	6µm	31	24
3261-50A	25-50mm	A	6µm	57	32
3261-25BA	0-25mm	B	6µm	31	24
3261-50BA	25-50mm	B	6µm	57	32
3261-25CA	0-25mm	C	6µm	31	24
3261-25DA	0-25mm	D	6µm	31	24



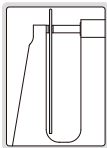
3261-25A

Ünite: mm

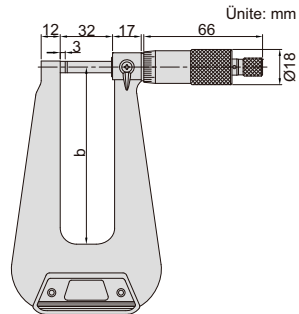


SAC METAL MİKROMETRESİ

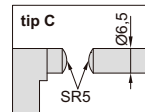
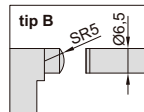
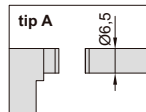
- Sac metal, plastik ve kağıdın derinlik çerçevesi için kullanılır
- Hassasiyet 0,01 mm
- Cırcırlı
- Karbür ölçüm ağızları



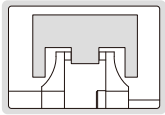
3239-253



(mm)				
Kod	Ölçüm aralığı	Tip	Doğruluk	b
3239-253	0-25mm	A	7 μ m	155
3239-253F	0-25mm	B	7 μ m	155
3239-254F	0-25mm	B	10 μ m	310
3239-253S	0-25mm	C	7 μ m	155



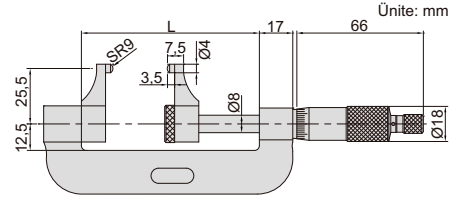
KUMPAS TİPİ MİKROMETRELER



- Hassasiyet 0,01mm
- Sabit mil
- Cırcırlı
- Karbür ölçüm yüzeyleri
- Sıfırlama mastarları ile tedarik edilir (0-25 mm hariç)



3238-25

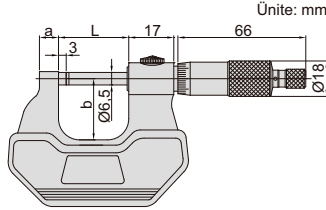


(mm)

Kod	Ölçüm aralığı	Doğruluk	L
3238-25	0-25mm	5µm	56
3238-50	25-50mm	6µm	81

SAĞ VE SOL EL KULLANANLAR İÇİN DIŞ ÇAP MİKROMETRESİ

- Hassasiyet: 0,01mm
- Her iki taraf için hassasiyet
- Cırcırlı
- Karbür ölçüm ağızları
- DIN863-1 standardına uygundur
- Sıfırlama masterları ile tedarik edilir (0-25mm hariç)



ön



arka

3236-25B

(mm)					
Kod	Ölçüm aralığı	Doğruluk	L	a	b
3236-25B	0-25mm	4µm	32	6	24
3236-50B	25-50mm	4µm	57	8	32

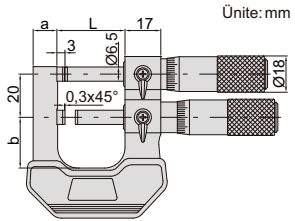
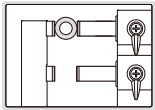
LİMİT MİKROMETRELERİ

- Üst ve alt limit ayarları ile Geçer/Geçmez kontrolü yapıldı
- Hassasiyet: 0,002 mm
- Karbür ölçüm ağızları
- Sıfırlama masterları dahildir (0-25mm hariç)



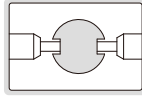
3235-25A

(mm)					
Kod	Ölçüm aralığı	Doğruluk	L	a	b
3235-25A	0-25mm	4µm	32	12	24
3235-50A	25-50mm	4µm	57	15	32



OLUK MİKROMETRESİ

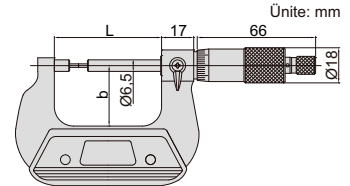
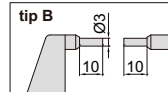
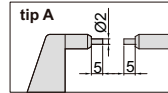
- DIN863-3 Standardına uygundur
- Oluklu şaft, yarık ve anahtar yatağı ölçümleri içindir
- Hassasiyet 0,01mm
- Cırcırlı
- Karbür ölçüm yüzeyleri
- Sıfırlama mastarları ile tedarik edilir (0-25mm hariç)

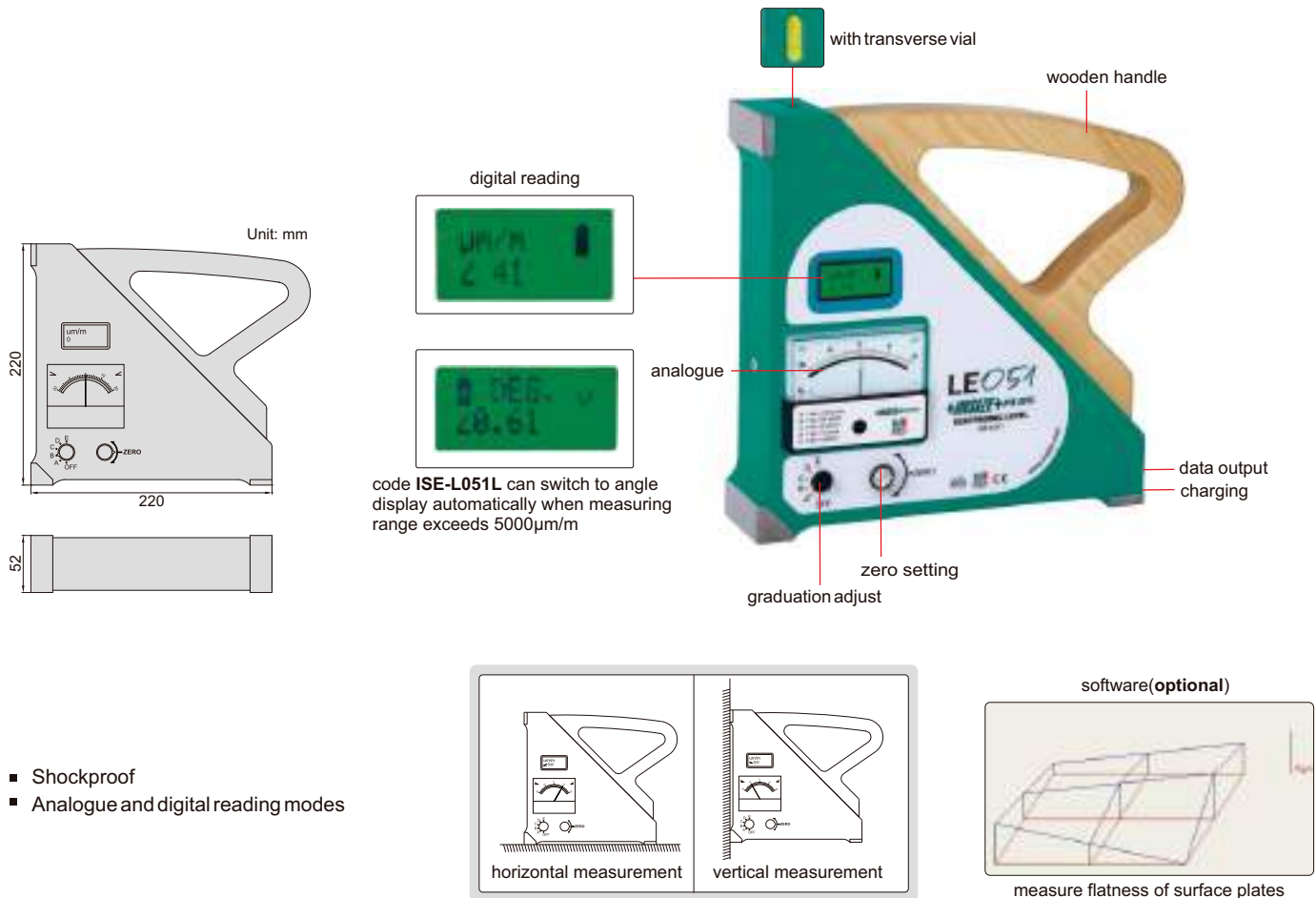


3233-25BA

(mm)

Kod	Ölçüm aralığı	Tip	Doğruluk	L	b
3233-25A	0-25mm	A	4μm	57	32
3233-25BA	0-25mm	B	4μm	57	32
3233-50BA	25-50mm	B	4μm	82	44,5
3233-75BA	50-75mm	B	5μm	107	57
3233-100BA	75-100mm	B	5μm	132,6	69,5
3233-125BA	100-125mm	B	6μm	158	82
3233-150BA	125-150mm	B	6μm	183,4	94,5
3233-175BA	150-175mm	B	7μm	208,8	107





- Shockproof
- Analogue and digital reading modes

SPECIFICATION

Code	ISE-L051			ISE-L051L		
Analogue graduation(adjustable)	250μm/m(=0.014°)	50μm/m(=10")	10μm/m(=2")	5μm/m(=1")	1μm/m(=0.2")	
Analogue range	±5000μm/m	±1000μm/m	±200μm/m	±100μm/m	±20μm/m	
Digital reading resolution	horizontal: 1μm/m(=0.2")			horizontal: 1μm/m(=0.2"), angle: 0.01°		
Digital reading range	horizontal: 5000μm/m			horizontal: 5000μm/m, angle: 0.3~85°		
Accuracy	horizontal: ±1%			horizontal: ±1%, angle: ±0.7%		
Zero setting range	±1500μm/m					
Response time	<3s					
Data output	RS232					
Power supply	rechargeable Li-ion battery, provides power for 10h continuous working					
Dimension	220×220×52mm					
Weight	4.4kg					

STANDARD DELIVERY

Main unit	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Software and data output cable	ISE-L050-SOFTWARE
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MAGNETIC BASE

LIFETIME
WARRANTY VIALS

ALUMINUM LEVEL

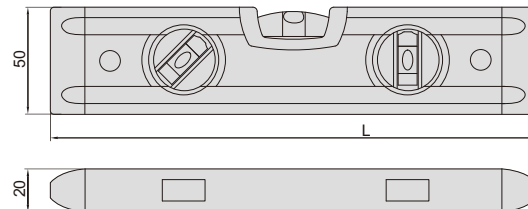


4921-230

- Shockproof horizontal and vertical vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: -15°C~55°C

Code	Size (L)	Accuracy
4921-230	230mm	0.5mm/m

Unit: mm



MAGNETIC BASE

LIFETIME
WARRANTY VIALS

HANDY LEVELS

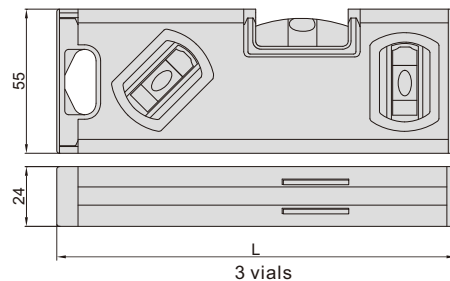
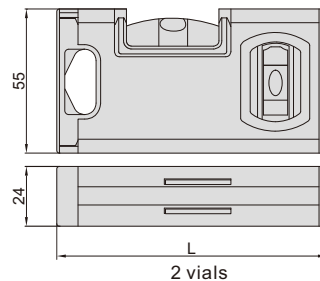


4922-100



4922-150

Unit: mm



- Shockproof horizontal and vertical vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: -15°C~55°C

Code	Size (L)	Accuracy	Number of vials
4922-100	100mm	0.5mm/m	2
4922-150	150mm	0.5mm/m	3
4922-200	200mm	0.5mm/m	3

CROSS-LINE LASER LEVEL CODE 4917-30



VIDEO

IP54
WATERPROOF

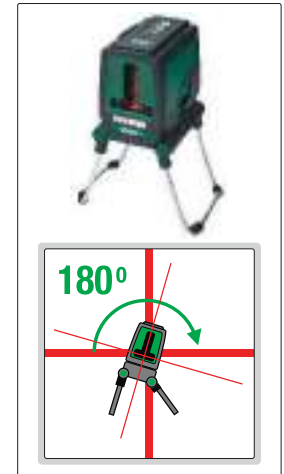
AUDIBLE AND VISUAL
WARNING WHEN OUT OF $\pm 3^\circ$

- Red horizontal and vertical cross laser lines
- Self-leveling within $\pm 3^\circ$, self-leveling time within 4s, audible and visual warning when out of $\pm 3^\circ$
- Folding legs for angle and height adjustment
- Outdoor use with the detector (code: **4917-DETECTOR**)

application examples



folding legs for angle
and height adjustment



SPECIFICATION

Laser line width	2 $\pm$ 0.5mm (within 5m)
Laser type	630~660nm, class II, <1mW
Beam angle	120 $\pm$ 0.5°
Self-leveling range	$\pm 3^\circ$
Working distance	indoor: 30m, outdoor: 50m with detector (optional)
Accuracy	0.2mm/m
Operation temperature	-10~40°C
Power supply	3×AA batteries, for 3 hours working
Dimension	100×82×104mm
Weight	620g

STANDARD DELIVERY

Main unit	1 pc
1/4" to 5/8" tripod adaptor	1 pc
Battery (AA)	3 pcs

OPTIONAL ACCESSORY

Outdoor detector	4917-DETECTOR
------------------	---------------

OUTDOOR DETECTOR (OPTIONAL)

Detecting distance	horizontal 1~50m, vertical 1~30m
Detecting accuracy *	high accuracy ± 1.5 mm, low accuracy ± 2.5 mm
Power supply	9V battery
Dimension	168×58×30mm
Weight	140g (battery included)

* Use high accuracy detection mode within 15m,
use low accuracy detection mode over 15m



outdoor detector (**optional**)

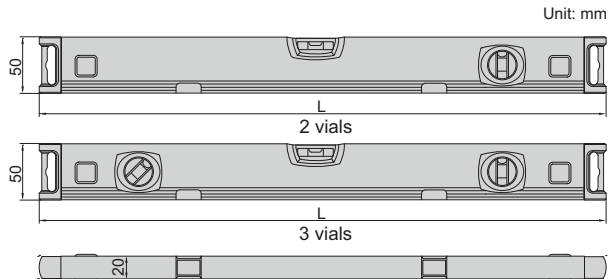


stand
(included with outdoor detector)

LIFETIME
WARRANTY VIALS

MAGNETIC BASE

ALUMINUM LEVELS

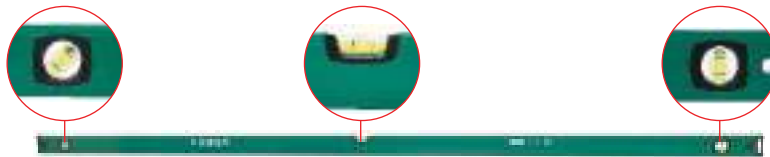


- Shockproof horizontal and vertical vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: -15°C~55°C

Code	Size (L)	Accuracy	Number of vials
4914-300	300mm	0.5mm/m	2
4914-600	600mm	0.5mm/m	2
4914-800	800mm	0.5mm/m	2
4914-1000	1000mm	0.5mm/m	2
4914-1200	1200mm	0.5mm/m	2
4914-2000	2000mm	0.5mm/m	3



4914-600



4914-2000

magnetic bottom surface (milled)

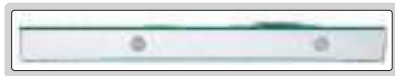


MAGNETIC BASE

LIFETIME
WARRANTY VIALS

CASTING ALUMINUM LEVEL

magnetic bottom surface (milled)

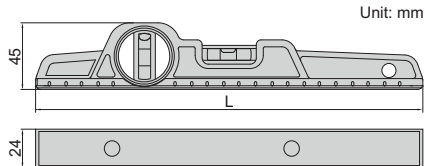


- Shockproof horizontal and vertical vials
- Magnetic base
- Working temperature: -15°C~55°C
- Casting aluminum body

Code	Size (L)	Accuracy
4913-250	250mm	0.5mm/m



4913-250



packaging



MAGNETIC BASE

LIFETIME
WARRANTY VIALS

magnetic base surface

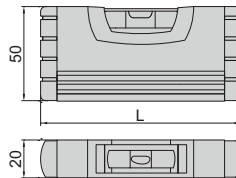


- Shockproof vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: -15°C~55°C



4912-100

Unit: mm



packaging



Code	Size (L)	Accuracy
4912-100	100mm	0.5mm/m

HANDY LEVEL

ALUMINUM ALLOY LEVELS

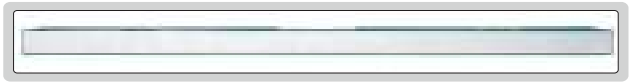
LIFETIME
WARRANTY VIALS

- Top and bottom working surfaces
- Shock-proof and UV-proof vials
- Die casting aluminum alloy frame
- Zero position of horizontal vial can be set
- One graduation of horizontal vial is 2% slope
- Working temperature: -15°C~55°C

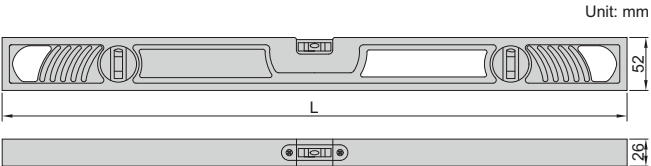


4911-600

bottom surface (non-magnetic, milled)



Code	Length (L)	Accuracy
4911-600	600mm	0.5mm/m
4911-800	800mm	0.5mm/m



MACHINISTS' LEVELS

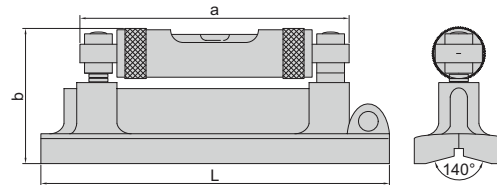
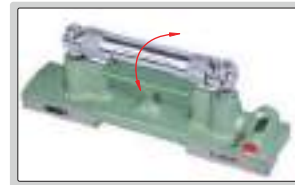
- With transverse and longitudinal vials
- V-groove on bottom for shafts (shafts dia. 15-60mm for **4904-150**, and 15-70mm for **4904-200/300**)
- Supplied with adjust wrench



4904-200

Code	Sensitivity	Size (L)	a	b
4904-150	0.3mm/m (=0.017°)	150mm	116mm	58mm
4904-200	0.3mm/m (=0.017°)	200mm	135mm	73mm
4904-300	0.3mm/m (=0.017°)	300mm	216mm	73mm

rotate cover to protect vials

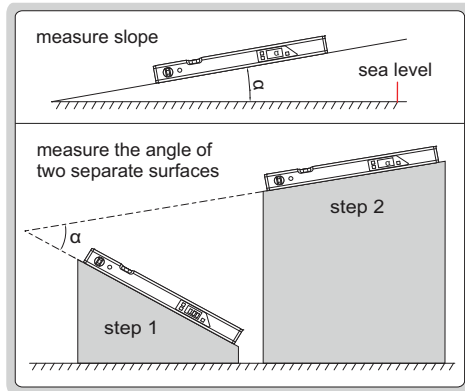


DIGITAL LEVELS AND SLOPE METERS

ABSOLUTE
LEVEL

BACKLIGHT

WORKING TEMPERATURE
0°C ~ 50°C



both angle and
slope are displayed

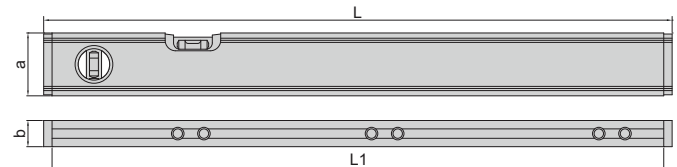


4910-400



4910-600

- With transverse and longitudinal vials
- Used as level and slope meter
- Aluminum frame, magnetic bottom
- The sea level is permanently set inside the chip, zero setting is not needed when batteries are replaced
- Buttons: ON/OFF, absolute and incremental measurement, keep the reading, buzzer alarm (not for **4910-400**), unit (mm/m, %, in/ft), conversion (not for **4910-400**), backlight
- The display flips over when the bottom faces up
- Two AAA batteries
- Automatic power off



(mm)

Code	Range	Resolution	Accuracy	Remark	L	L1	a	b
4910-400	0~360° (90°×4)	angle: 0.1°; slope: 1mm/m	±0.2°	both angle and slope are displayed	416	400	50	21
4910-600	0~360° (90°×4)	at 0° and 90°: 0.05° (=0.8725mm/m); at others: 0.1° (=1.745mm/m)	at 0° and 90°: ±0.1°; at others: ±0.2°	at 0° and 90° buzzer alarms	600	585	60	25

NO NEED TO SET
ZERO BEFORE USE

- No need to set zero before use
- With mounting holes (for M5 screws)

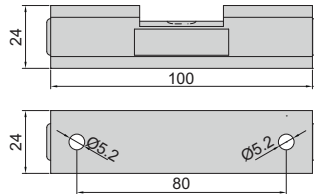
Code	Length	Sensitivity
4908-100	100mm	0.1mm/m (=0.0057°)



4908-100

MINI LEVEL
INSIZE PLUS
MADE IN EUROPE

Unit: mm



NO NEED TO SET
ZERO BEFORE USE

- No need to set zero before use
- Suitable for small spaces like crankshaft
- Longitudinal and transverse V-grooves on bottom for shafts (shafts dia. 19.3~115.9mm)
- With transverse vial

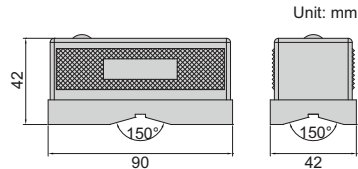
Code	Length	Sensitivity
4907-90	90mm	0.1mm/m (=0.0057°)



4907-90

SHORT LEVEL

INSIZE PLUS
MADE IN EUROPE



BLOCK LEVELS

INSIZE^{PLUS}
MADE IN EUROPE

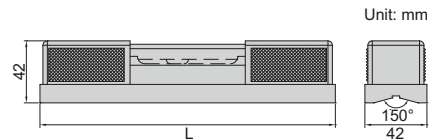
- No need to set zero before use
- V-groove on bottom for shafts
(shafts dia. 19.3~115.9mm)
- With longitudinal vial



4905-200

NO NEED TO SET
ZERO BEFORE USE

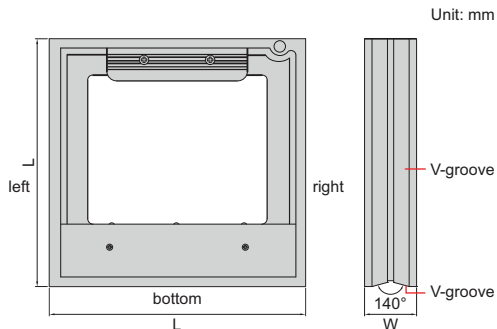
Code		Size (L)
Sensitivity 0.02mm/m(=0.001°)	Sensitivity 0.1mm/m(=0.0057°)	
4905-160	4905-B160	160mm
4905-200	4905-B200	200mm
4905-300	4905-B300	300mm
4905-500	4905-B500	500mm



FRAME LEVELS (ECONOMIC TYPE)



- V-groove on bottom and left for shafts (shafts dia. 15~70mm)
- With transverse vial
- Supplied with adjusting wrench



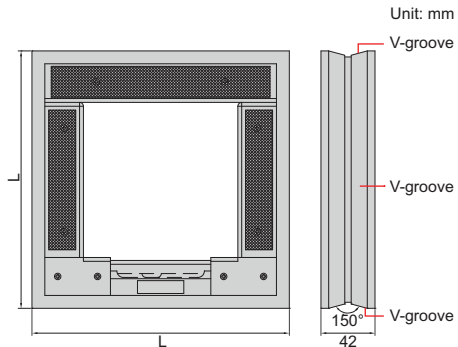
4902-200

Code		Size (LxL)	W
Sensitivity 0.02mm/m (=0.001°)	Sensitivity 0.05mm/m (=0.0029°)		
4902-150	4902-C150	150x150mm	40mm
4902-200	4902-C200	200x200mm	40mm
4902-300	4902-C300	300x300mm	45mm

FRAME LEVELS

INSIZE^{PLUS}
MADE IN EUROPE

- No need to set zero before use
- Three V-grooves for shafts (shafts dia. 19.3~115.9mm)
- With longitudinal vial



NO NEED TO SET
ZERO BEFORE USE



4906-200

Code		Size (LxL)
Sensitivity 0.02mm/m (=0.001°)	Sensitivity 0.1mm/m (=0.0057°)	
4906-150	4906-B150	150x150mm
4906-200	4906-B200	200x200mm
4906-300	4906-B300	300x300mm

ALUMINUM LEVELS

MAGNETIC BASE

VIALS MADE IN ISRAEL
LIFETIME WARRANTY

- Shockproof horizontal and vertical vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: -15°C~55°C

Code	Size (L)	Accuracy
4914-300	300mm	0.5mm/m (.006in/ft)
4914-600	600mm	0.5mm/m (.006in/ft)
4914-800	800mm	0.5mm/m (.006in/ft)
4914-1000	1000mm	0.5mm/m (.006in/ft)
4914-1200	1200mm	0.5mm/m (.006in/ft)
4914-2000	2000mm	0.5mm/m (.006in/ft)

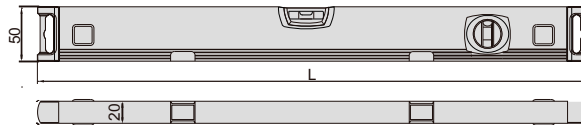


4914-600

magnetic bottom surface(milled)



Unit: mm



ELEKTRONİK TERAZİ KOD ISE-L051

INSIZE PLUS
İTALYAN MALI

yazılım (opsiyonel)



yüzeylerin düzlüğü ölçülür

- Şoka dayanıklı
- Analog ve dijital okuma

ÖZELLİK

Analog okuma hassasiyeti	250µm/m(=0,014")	50µm/m(=10")	10µm/m(=2")	5µm/m(=1")	1µm/m(=0,2")
Analog okuma aralığı	5000µm/m	1000µm/m	200µm/m	100µm/m	20µm/m
Dijital okuma çözünürlüğü	1µm/m(=0,2")				
Dijital okuma aralığı	5000µm/m				
Doğruluk	±2%				
Sıfırlama mastarı aralığı	±1500µm/m				
Tepki süresi	<3 sec				
Bilgi çıkışı	RS232				
Güç kaynağı	şarj edilebilir pil; 100 saatlik çalışma için				
Boyut	220x220x52mm				
Ağırlık	4,4kg				

STANDART TESLİMAT

Ana ünite	1 parça
AC/DC Adaptörü	1 parça

OPSİYONEL AKSESUAR

USB kablo su ve yazıcı	ISE-L050-SOFTWARE
------------------------	-------------------

uzunlamasına
kapsüller ile



tahta tutacak

dijital okuma

analog

hassasiyet
ayarlaması

sıfırlama
mastarı

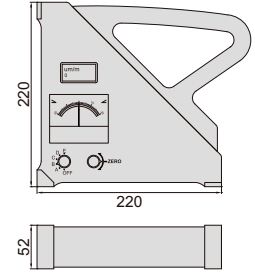
bilgi çıkışı
şarj aleti girişi

BİLGİ
ÇIKIŞI

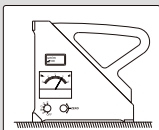
ŞOKA
DAYANIKLI

**KALİBRASYON
SERTİFİKASI**

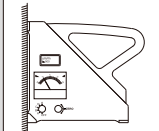
Ünite: mm



VIDEO



dikey ölçme



yatay ölçme

ELEKTRONİK TERAZİ

KOD ISE-L050

INSIZE PLUS
İTALYAN MALİ

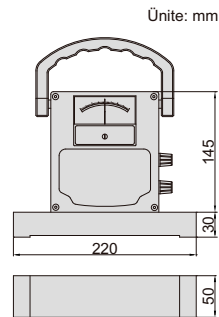
KALİBRASYON
SERTİFİKASI

yazılım (opsiyonel)



yüzeylerin düzlüğü ölçülür

■ Şoka dayanıklı



ŞOKA
DAYANIKLI

BİLGİ
ÇIKIŞI

ÖZELLİK

Hassasiyet (ayarlanabilir)	250µm/m (=0,014°)	50µm/m (=10")	10µm/m (=2")	5µm/m (=1")	1µm/m (=0,2")
Ölçüm aralığı	5000µm/m	1000µm/m	200µm/m	100µm/m	20µm/m
Doğruluk	±2%				
Sıfırlama mastarı aralığı	±1500µm/m				
Tepki süresi	<3 sec				
Bilgi çıkışı	RS232				
Güç kaynağı	şarj edilebilir pil; 100 saatlik çalışma için				
Boyut	220x236x50mm				
Ağırlık	2,8kg				



VIDEO

STANDART TESLİMAT

Ana ünite	1 parça
AC/DC Adaptörü	1 parça

OPSİYONEL AKSESUAR

USB kablosu ve yazıcı	ISE-L050-SOFTWARE
-----------------------	-------------------

BİLGİ ÇIKIŞI

- Renkli LCD; dokunmatik ekran
- X-Y eksenlerinde ölçüm
- Tolerans ve gösterge ayarlaması farklı renklerde gösterilir



tolerans içinde (yeşil)



az tolerans dışında (sarı)



çok tolerans dışında (kırmızı)

- Eğimi çizgi yada baloncuk ile gösterme



dikey kullanım



yatay kullanım



yatık kullanım

renkli LCD ve dokunmatik ekran

eğim yönü

mutlak/sayarak artan mod

eğim açısı



DİJİTAL TERAZİ KOD ISE-2DT



LED ışığı

şarj etme ve bilgi çıkışı



silindir için V-ucu

alt kısımda 4 vidalı monte yeri vardır



VIDEO

ÖZELLİK

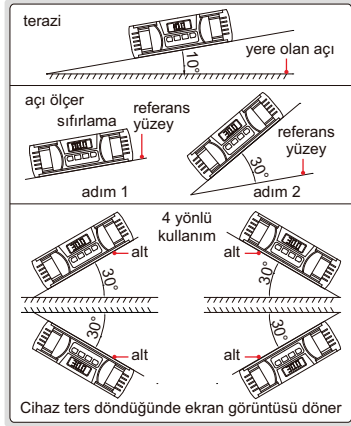
Ölçüm aralığı	$\pm 30^\circ$
Çözünürlük	$0,01^\circ$; 0,1mm/m
Doğruluk	$\pm 0,03^\circ$ (ölçüm aralığı $0 \sim 3^\circ$) $\pm 0,05^\circ$ (ölçüm aralığı $> 3^\circ$)
Güç kaynağı	şarj edilebilir pil
Boyut	115×66×23mm
Ağırlık	224g

STANDART TESLİMAT

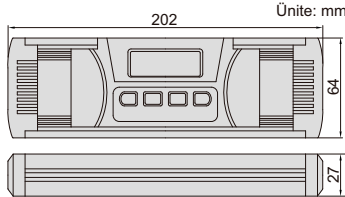
Ana ünite	1 parça
USB kablosu	1 parça

OPSİYONEL AKSESUAR

Yazılım	ISE-2DT-SOFTWARE
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2175-360



DİJİTAL TERAZİ VE AÇI ÖLÇER

IP54
SUGEÇİRMEZ

MUTLAK
TERAZİ

ARKA IŞIK

0° VE 90°'DE
SESLİ ALARM

- IP67 suya/toza karşı koruma
- Alüminyum çerçeve; şok emici kauçuk kpaklar
- Mil üstü kullanım için V-kanallı manyetik taban
- Yere olan açı kalıcı olarak ayarlanmıştır; pil değişiminde sıfırlama gerekmemektedir
- Tuşlar: AÇ/KAPA; mutlak ve sayarak artarak ölçme; BEKLET; ünite (mm/m; %; °)
- 3 AAA pil
- Otomatik kapanma

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk
2175-360	0-360° (90°x4)	0,05° (=0,873mm/m)	0°'de: ±0,05°; diğerleri: ±0,1°

ATTENTION:
BASIC MODEL

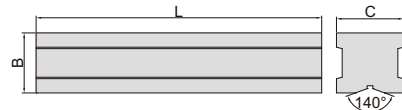
- Mil üstü kullanım için tabanda V-oluk (mil çapı 15~70mm)
- Uzunlamasına kapsül ile
- Ayarlama anahtarı ile tedarik edilir



4903-200A



Kod		(mm)		
Hassasiyet 0,02mm/m (=0,001°)	Hassasiyet 0,05mm/m (=0,0029°)	Uzunluk (L)	B	C
4903-150A	4903-C150	150mm	40	45
4903-200A	4903-C200	200mm	42	47
4903-300A	4903-C300	300mm	45	50



DİJİTAL TERAZİ VE AÇI ÖLÇER

MUTLAK
TERAZİ

ARKA IŞIK

MANYATIK
TABAN

CIHAZ TERS DÖNDÜĞÜNDE
EKRAN GÖRÜNTÜSÜ DÖNER

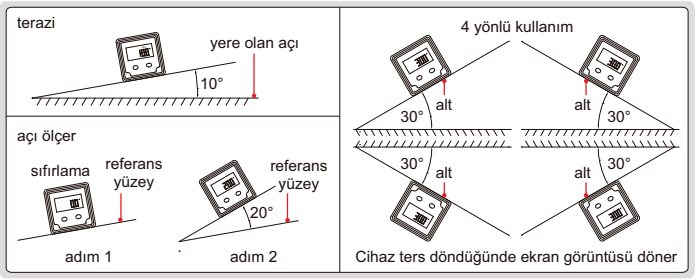
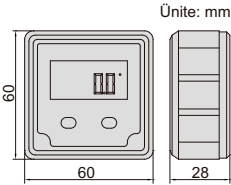
- Alüminyum çerçeve
- Manyetik taban
- Cihaz ters döndüğünde ekran görüntüsü döner
- Kullanırken arka ışık otomatik yanar; kullanım durduktan 15 dakika sonra otomatik kapanır
- Yere olan açı kalıcı olarak ayarlanmıştır; pil değişiminde sıfırlama gerekmemektedir
- Tuşlar: AÇ/KAPA; mutlak ve sayarak artarak ölçme; BEKLET; ünite (mm/m; %; °)
- Bir AAA pil
- 5 dakika sonra otomatik kapanma



Kod	Ölçüm aralığı	Çözünürlük	Doğruluk
2170-1	4x90°	0,1° (=1,745mm/m)	0° ve 90°'de: ±0,1°; diğerleri: ±0,2°



2170-1



DİJİTAL TERAZİ VE AÇI ÖLÇER

IP54
SUGEÇİRMEZ

MUTLAK
TERAZİ

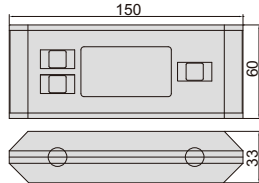
ARKA IŞIK

0° VE 90°'DE
SESLİ ALARM



2179-360

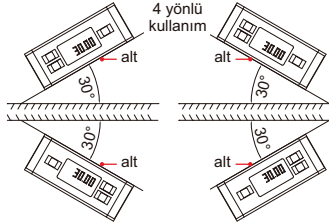
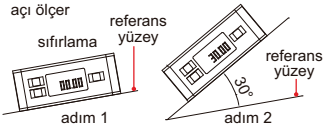
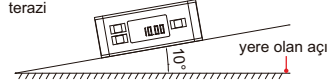
Ünite: mm



VIDEO

- IP54 suya/toza karşı koruma
- Alüminyum çerçeve;
- Mil üstü kullanım için V-kanallı manyetik taban
- Yere olan açı kalıcı olarak ayarlanmıştır; pil değişiminde sıfırlama gerekmemektedir
- Tuşlar: AÇ/KAPA; mutlak ve sayarak artarak ölçme; BEKLET; ünite (mm/m; %; °)
- İki AAA pil
- Otomatik kapanma

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk
2179-360	0-360° (90°x4)	0,05° (=0,873mm/m)	0° ve 90°'de: ±0,1°; diğerleri: ±0,2°

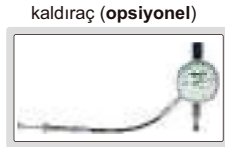


Cihaz ters döndüğünde ekran görüntüsü döner

YÜKSEK HASSASIYETLİ KOMPAKT KOMPARATÖR SAATİ

←INSIZE→PLUS
ALMAN MALI

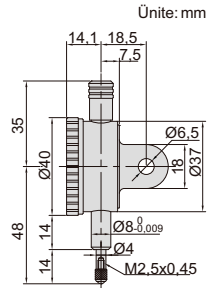
- Darbeye dayanıklı
- Kıymetli taş yataklı
- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar:
arka kapaklar (sayfa 94-95),
temas uçları (sayfa 92-93),
kaldıraç (kod **6289-150**)



2890-1

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2890-1*	1mm	0,001mm	3µm	1,5µm	0,1mm	0-100	kulaklı kapak
2890-1F*	1mm	0,001mm	3µm	1,5µm	0,1mm	0-100	düz kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir



KOMPAKT KOMPARATÖR SAATİ

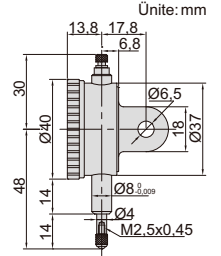
INSIZE PLUS
ALMAN MALI

- DIN878 Standardına uygundur
- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar: arka kapaklar (sayfa 94-95), temas uçları (sayfa 92-93)



2887-5

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI



Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2887-5 *	5mm	0,01mm	14µm	3µm	0,5mm	0-50	kulaklı kapak
2887-5F *	5mm	0,01mm	14µm	3µm	0,5mm	0-50	düz kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir

←INSIZE→ PLUS
ALMAN MALI

KALİBRASYON
SERTİFİKASI
NIST ONAYLI



- DIN878 Standardına uygundur
- Yanlış sayma sebebiyle olan okuma hatalarını ortadan kaldırır
- Darbeye dayanıklı
- Serbest hareket: 7 mm
- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar: arka kapaklar (sayfa 94-95), temas uçları (sayfa 92-93)

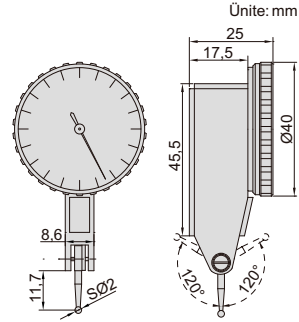
Technical drawing of a mechanical part, labeled "Fig. 1.1". The drawing shows a side view of a component with a central shaft and a flange. Key dimensions are: total height 69, flange diameter Ø58, flange thickness 19, shaft diameter Ø8 (tolerance 0 to -0.009), and a hole in the flange with diameter Ø6.5 and distance 18 from the center. A detail view shows a hole with diameter Ø5 and a thread M2.5x0.45. Other dimensions include 15.5, 18.5, and 7.5 for the top section.

* Üretici kalibrasyon sertifikası ile tedarik edilir



2880-02

- DIN2270 Standardına uygundur
- Seramik çerçevesi
- Çift yönlü ölçüm
- Tek kelepçe ile tedarik edilir: çap Ø8mm
- Opsiyonel aksesuar: prob (sayfa 99)



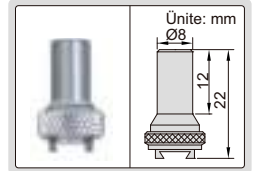
HASSAS SALGI SAATİ

INSIZE PLUS
ALMAN MALI

yakut temas ucu 2880-02R



kelepçe (dahil)

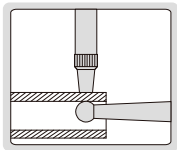


Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma	Açıklama
2880-02*	0,2mm	0,002mm	4µm	2µm	0-100-0	manyetik olmayan kARBÜR uç
2880-02R*	0,2mm	0,002mm	4µm	2µm	0-100-0	yakut temas ucu

* Üretici kalibrasyon sertifikası ile tedarik edilir

DİJİTAL BORU KALINLIĞI KOMPARATÖRÜ

BİLGİ
ÇIKIŞI

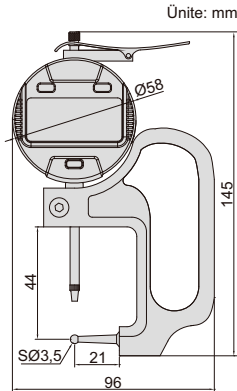


- Tuşlar: aç/kapa, sıfırla, mm/inç
- CR2032 pil, otomatik kapanma
- Bilgi çıkış
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod 7306-40, 7302-SPC3A, 7305-SPC1A, 7305-C01)

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk
2876-10	0-10mm/0-0,4"	0,01mm/0,0005"	±0,02mm

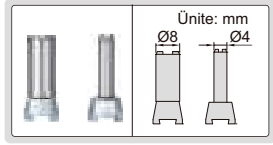


2876-10



UZUN PROBLU SALGI SAATİ (YATAY EKRAN)

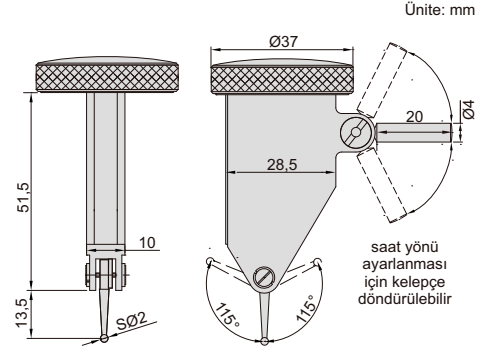
kelepçe (dahil)



- Saat Okuma: 0-40-0
- Kıymetli taş yataklı
- Karbür temas ucu
- Çift yönlü ölçüm
- Manyetik olmayan gövde
- İki kelepçe ile tedarik edilir:
çap Ø8mm ve Ø4 mm
- Opsiyonel aksesuar: prob (sayfa 99)



2480-16



Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi
2480-16*	1,6mm	0,01mm	18µm	3µm

* Üretici kalibrasyon sertifikası ile tedarik edilir

ATTENTION: NOT SUITABLE FOR DIAL
INDICATORS WITH GRADUATION 0.001MM



VIDEO

DIAL INDICATOR TESTER CODE 2396-25A

- To calibrate dial indicators, test indicators and dial bore gages
- Dimension: 270x210x205mm
- Weight: 11kg

Micrometer head

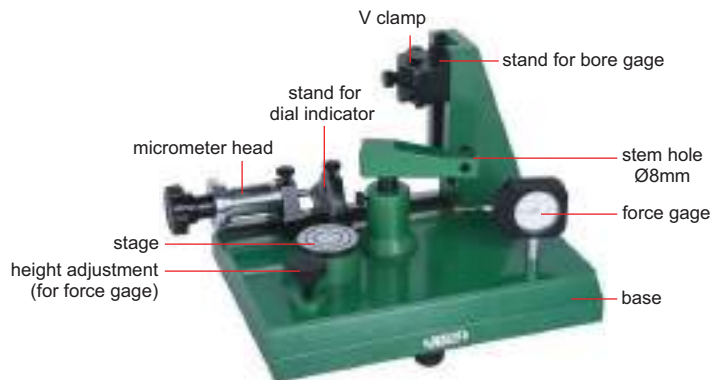
Range	Sampling interval	Accuracy	Hysteresis
0-25mm	0.1mm	4μm (0-25mm), 3μm (0-10mm), 2μm (0-1mm)	1μm

Force gage

Range	Graduation	Accuracy
0-1.6N	0.05N	±5% (of load capacity)

Stage

Diameter	Flatness	Roughness
50mm	1μm	0.05μm



2396-25A



Half round gage block (optional)

Code	Parallelism
2396-block	1μm



inspect accuracy of dial
indicators (range 0-25mm)



inspect accuracy of dial bore
gages (range 6-450mm)



inspect accuracy of
test indicators



check force of dial indicators



check repeatability of dial
indicators



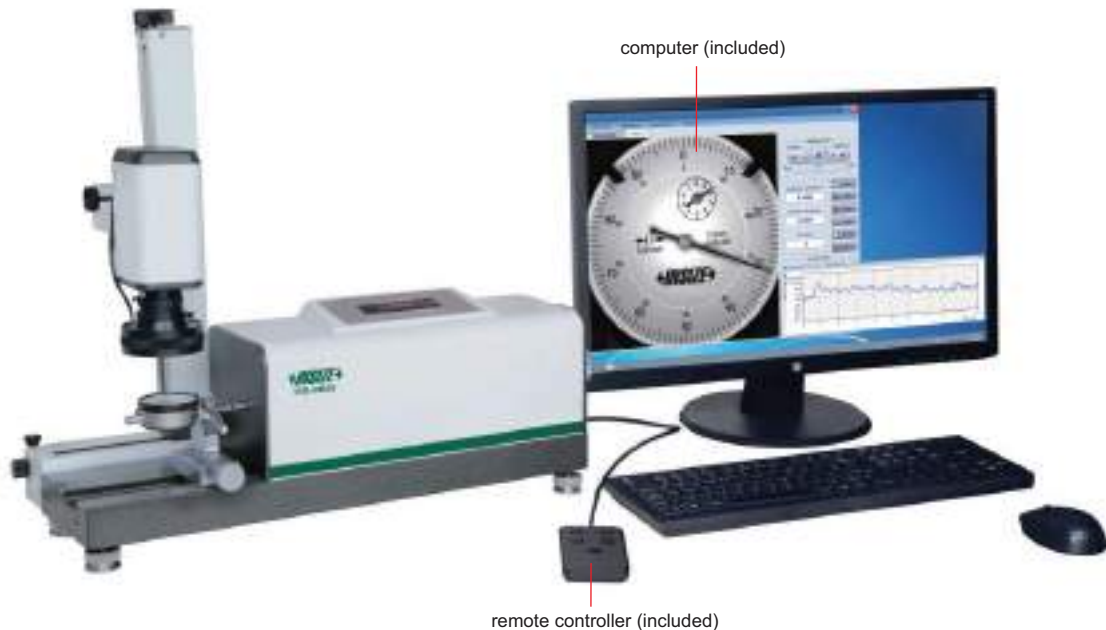
check the effect of lateral force on
accuracy of dial indicators
(half round gage block is required)



check the effect of lateral force on
accuracy of test indicators
(half round gage block is required)



AUTOMATIC DIAL INDICATOR TESTER CODE ISQ-DB50



- Automatic measurement
- Semi-automatic measurement is possible, operate by hand and find graduation lines by eyes, for indicators with stains on dial faces
- Automatic zero setting
- Detection accuracy of graduation lines:
 - 1/15 graduation for 0.001mm dial indicators or dial test indicators,
 - 1/30 graduation for 0.01mm dial indicators or dial test indicators
- Suitable for dial indicators or dial test indicators with plain and convex crystals

SPECIFICATION

Applicable products	dial indicators, digital indicators, dial test indicators and bore gages
Standard	DIN878, DIN2270, ASME B89.1.10M, BS907, BS2795, JIS B7503, JIS B7533 and so on. customized standard: customers can set the range, interval, accuracy and hysteresis
Measuring range	0-50mm
Resolution	0.1μm
Repeatability	0.1μm
Speed	average 0.6s/point (adjustable) It takes 3 minutes to calibrate a 10mm dial indicator (100 points forward and 100 points backward)
Accuracy	any 1mm: 0.8μm
	any 2mm: 1.0μm
	any 10mm: 1.3μm
	any 30mm: 1.5μm
	50mm: 2.0μm
Hysteresis	0.5μm
Output	RS232
Power supply	220V, 50Hz
Operation temperature	20±5°C
Operation humidity	(50~70)%RH
Dimension (L×W×H)	640×240×530mm
Weight	35kg

STANDARD DELIVERY

Main unit	1 pc
Holder for dial indicators and digital indicators (Ø8mm, 3/8")	1 pc
Holder for dial test indicators (Ø4mm, Ø6mm, Ø8mm)	3 pcs
Holder for bore gages (Ø4-28mm)	1 pc
Computer	1 pc
Remote controller	1 pc
Software	1 pc

OPTIONAL ACCESSORY

Holder for split type bore gages	ISQ-DB501
Cable for INSIZE digital indicators	ISQ-DB502

To be continued



Ø8mm and 3/8" holder for dial indicators or digital indicators (included)



Ø4-28mm holder for bore gages (included)



holder for split type bore gages (optional)



Ø4mm, Ø6mm and Ø8mm holder for dial test indicators (included)



cable for INSIZE digital indicators (optional)



check dial indicators



check dial test indicators



check digital indicators (detect digits on screen)



check INSIZE digital indicators (connection with cable)



check bore gages

report

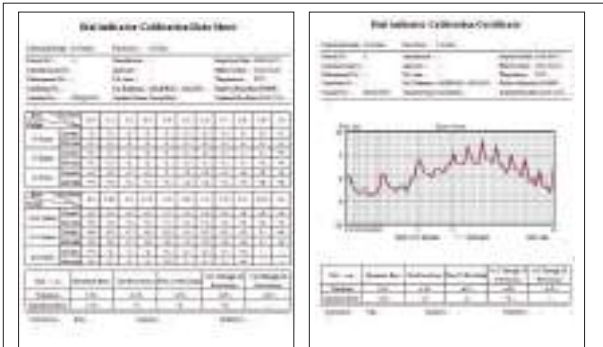


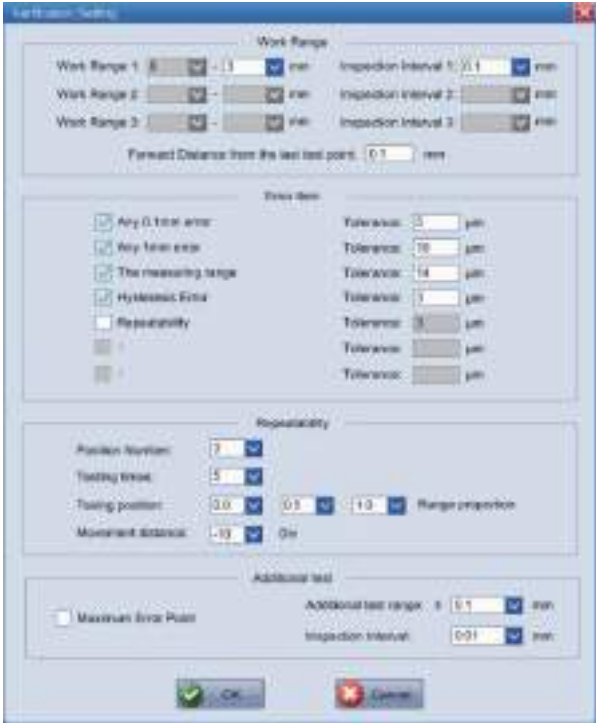
table form

graph form



certificate form

customized standard



CLAMPS FOR DIAL TEST INDICATORS

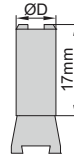
Code	ØD
6298-1	Ø4mm
6298-2	Ø8mm



6298-1



6298-2



FLAT BACKS



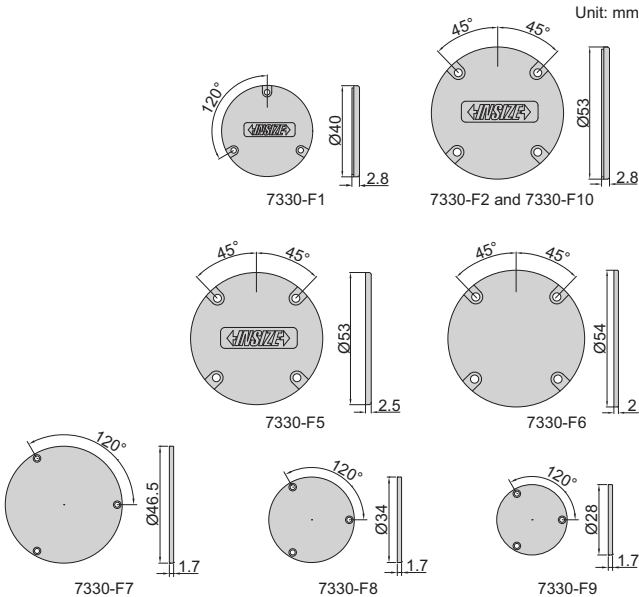
7330-F2



7330-F8

Code	For digital/dial indicators
7330-F1	2311
7330-F2	2301
	2302
	2308
	2309 (except 2309-30, 2309-30F)
	2313
	2314
	2316
	2324
	2801
7330-F5	2103
	2104
	2108
	2109
	2112
	2113

Code	For digital/dial indicators
7330-F5	2115
	2116
	2117
	2118
	2120
	2501
7330-F6	2318
7330-F7	2830
	2882
	2885
	2888
	2889
	2891
	2892
7330-F8	2890
7330-F9	2887
	2886
7330-F10	2310



LUG BACKS



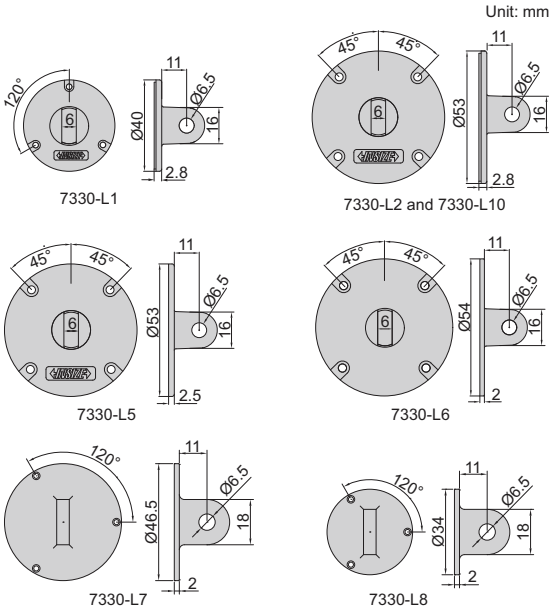
7330-L2



7330-L8

Code	For digital/dial indicators
7330-L1	2311
7330-L2	2301
	2302
	2308
	2309 (except 2309-30, 2309-30F)
	2313
	2314
	2316
	2324
	2801
7330-L5	2103
	2104
	2108
	2109
	2112
	2113

Code	For digital/dial indicators
7330-L5	2115
	2116
	2117
	2118
	2120
	2501
7330-L6	2318
7330-L7	2830
	2882
	2885
	2888
	2889
	2891
	2892
7330-L8	2890
7330-L9	2887
	2886
7330-L10	2310

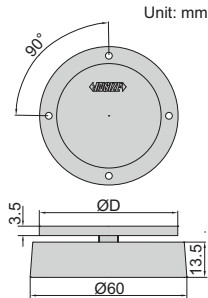


MAGNETIC BACKS

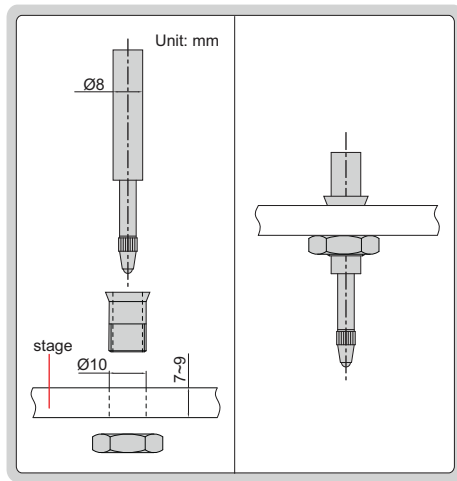
Code	ØD	For digital/dial indicators
7331-M1	51.5mm	2103
		2104
		2108
		2109
		2112
		2113
		2115
		2116
		2117
		2118
		2120
		2501
		2301
		2302
		2308
		2309 (except 2309-30, 2309-30F)
		2313
		2314
		2316
		2324
		2801
7331-M2	54mm	2318



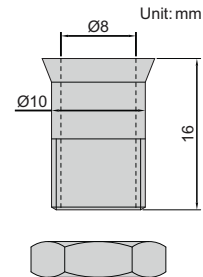
7331-M2



SHAFT SLEEVE



7333



- For dial indicators and probes with shaft diameter $\varnothing 8$ mm

Code
7333

- For dial/digital indicators with spindle diameter Ø4.5mm or Ø5mm

Code

7332



7332

SPINDLE LIFT KNOB

INCH LONG STROKE DIAL INDICATORS



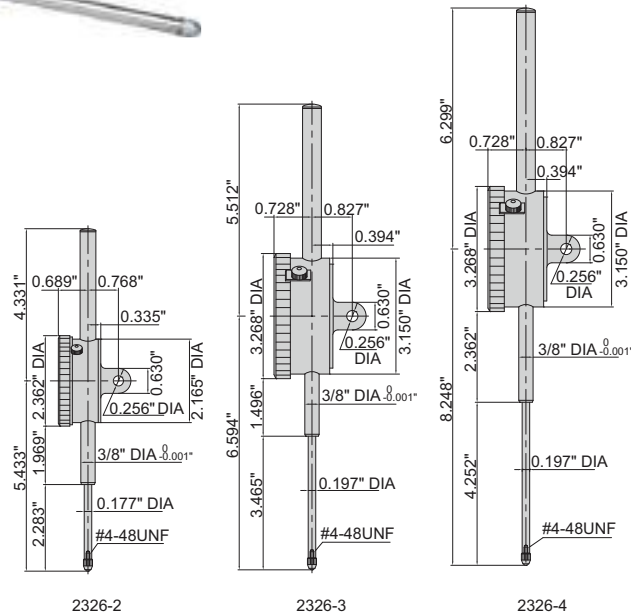
2326-2

- Graduation 0.001"
- With lug back
- Supplied with limit pointers and bezel clamp

Code	Range	Accuracy		Range/rev	Dial reading
		First 2.5 rev	Overall		
2326-2 *	2"	±0.001"	±0.004"	0.1"	0-100
2326-3 **	3"	±0.001"	±0.005"	0.1"	0-100
2326-4 **	4"	±0.001"	±0.005"	0.1"	0-100

* Supplied with manufacturer inspection certificate traceable to NIST

** **2326-3** and **2326-4** can only be used vertically



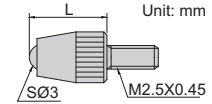
BALL POINTS

Code	Material of measuring face	L (mm)
6282-0101	carbide	7.3
6282-0103	ceramic	7.3
6282-0104	carbide	8.3
6282-0106	carbide	12.1
6282-0107	carbide	14
6282-0108	carbide	15
6282-0109	ceramic	15
6282-0110	carbide	17

Code	Material of measuring face	L (mm)
6282-0111	carbide	19.3
6282-0112	carbide	20
6282-0113	ceramic	20
6282-0114	carbide	22
6282-0115	carbide	25
6282-0116	ceramic	25
6282-0117	carbide	30
6282-0118	ceramic	30



6282-0101

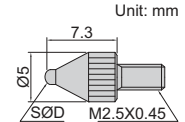


Code	Material of measuring face	SØD (mm)
6282-0301	steel	1
6282-0302	carbide	1.5
6282-0303	carbide	1.8

Code	Material of measuring face	SØD (mm)
6282-0304	carbide	2.5
6282-0305	carbide	4



6282-0301



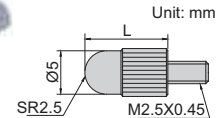
SHELL TYPE POINTS

Code	Material of measuring face	L (mm)
6282-0202	steel	5
6282-0203	steel	10
6282-0205	steel	15

Code	Material of measuring face	L (mm)
6282-0207	steel	20
6282-0208	steel	25
6282-0210	steel	30



6282-0202

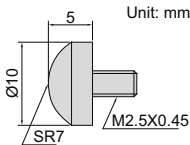


SPHERICAL POINT

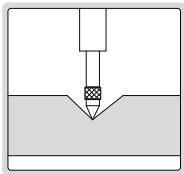
Code	Material of measuring face
6282-0401	steel



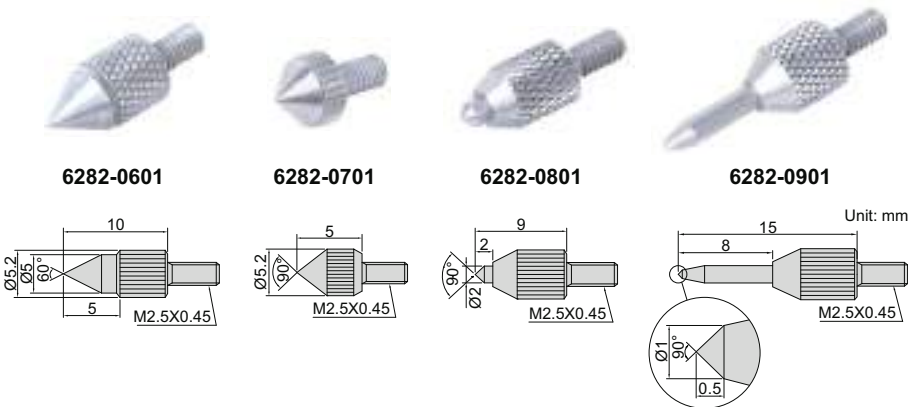
6282-0401



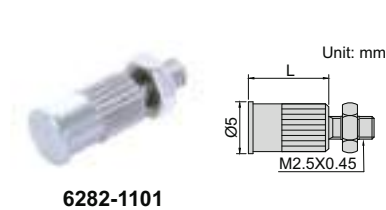
CONICAL POINTS



Code	Material of measuring face
6282-0601	steel
6282-0701	steel
6282-0801	steel
6282-0901	steel

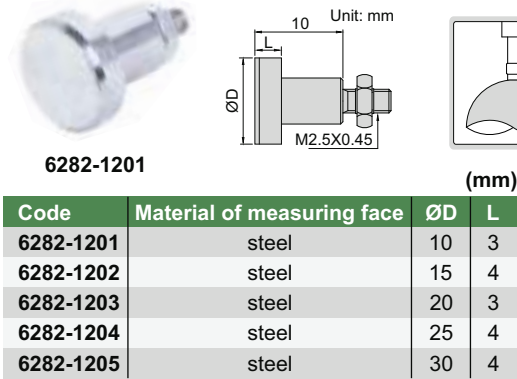


FLAT POINTS



6282-1101

Code	Material of measuring face	L (mm)
6282-1101	steel	8
6282-1102	steel	10



6282-1201

(mm)

Code	Material of measuring face	ØD	L
6282-1201	steel	10	3
6282-1202	steel	15	4
6282-1203	steel	20	3
6282-1204	steel	25	4
6282-1205	steel	30	4



6282-1301

Code	Material of measuring face
6282-1301	carbide

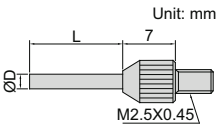
NEEDLE POINTS

Code	Material of measuring face	ØD	L
6282-1701	steel	0.45	3
6282-1702	steel	0.45	5
6282-1703	carbide	1	3
6282-1704	carbide	1	5
6282-1705	carbide	1	8
6282-1706	carbide	1	10
6282-1707	carbide	1	20
6282-1708	carbide	1	40
6282-1709	carbide	1.5	5

Code	Material of measuring face	ØD	L
6282-1710	carbide	1.5	10
6282-1711	carbide	1.5	13
6282-1712	carbide	1.5	20
6282-1713	carbide	1.5	40
6282-1714	carbide	2	8
6282-1715	carbide	2	18
6282-1716	carbide	2	28
6282-1717	carbide	2	40



6282-1711

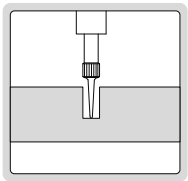
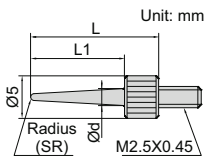


Code	Material of measuring face	L1	L	SR	Ød
6282-1601	steel	11	15	0.4	2
6282-1602	steel	13	17	0.2	2
6282-1603	steel	21	25	0.4	3
6282-1604	steel	31	35	0.4	3

(mm)



6282-1601

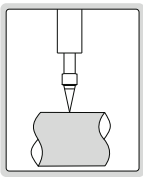
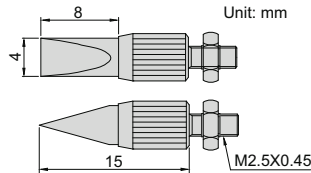


KNIFE EDGE POINT

Code	Material of measuring face
6282-1001	steel



6282-1001

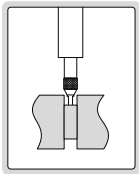
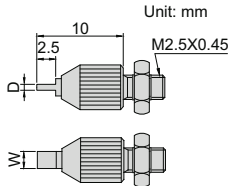


BLADE POINTS

Code	Material of measuring face	D	W
6282-1801	steel	0.4mm	2mm
6282-1802	steel	0.6mm	2mm
6282-1803	steel	1mm	4mm



6282-1801

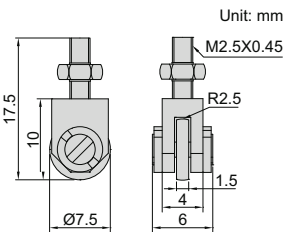


ROLLER POINT

Code	Material of measuring face
6282-1901	steel



6282-1901



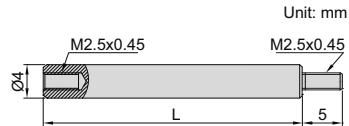
EXTENSION RODS

Code	Material	L (mm)
6282-2001	steel	10
6282-2002	steel	15
6282-2003	steel	20
6282-2004	steel	25
6282-2005	steel	30
6282-2006	steel	35
6282-2007	steel	40
6282-2008	steel	45
6282-2009	steel	50

Code	Material	L (mm)
6282-2010	steel	55
6282-2011	steel	60
6282-2012	steel	65
6282-2013	steel	70
6282-2014	steel	75
6282-2015	steel	80
6282-2016	steel	90
6282-2017	steel	100



6282-2010

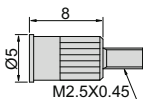


POINT SET

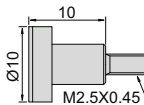


6282-S6

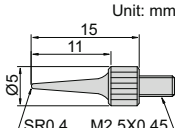
Code	Material of measuring face
6282-S6	steel



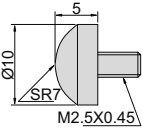
Flat Point



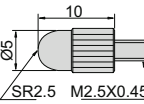
Flat Point



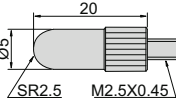
Needle Point



Spherical Point



Shell Type Point



Shell Type Point

MULTI LINEAR GAGE SYSTEM

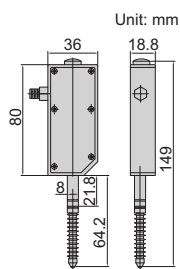
LINEAR GAGE
IP65
WATERPROOF



VIDEO



linear gage

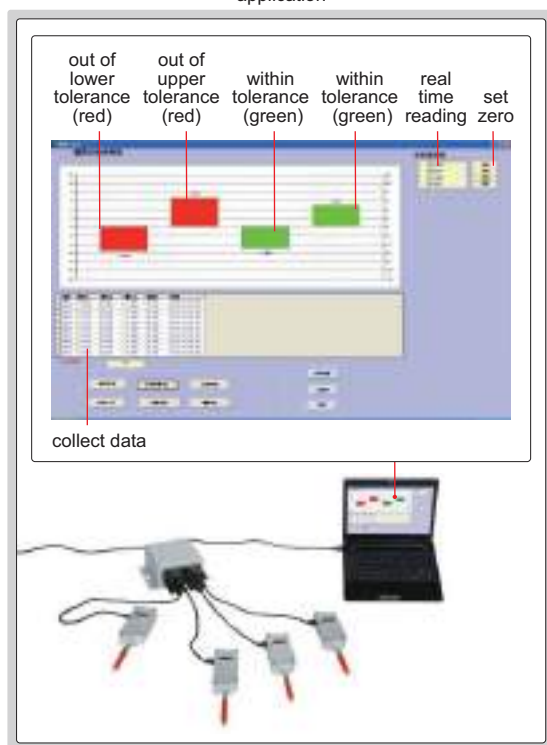


Unit: mm

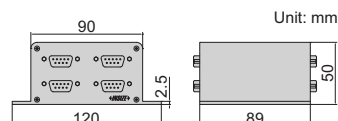


software CD
(included)

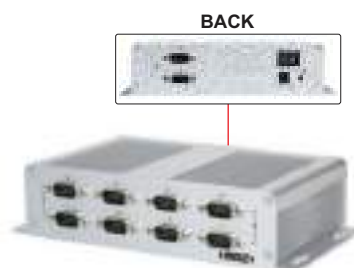
application



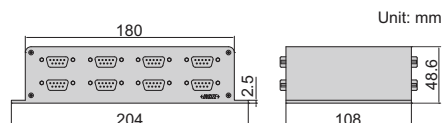
4-channel interface box
7107-1



Unit: mm



8-channel interface box
7107-2



Unit: mm

- Interface boxes are supplied with software. In the software, it is possible to set tolerance of each channel and show judgment (red when out of tolerance, green when within tolerance), set zero, collect data manually or automatically (time is adjustable), output data to Excel, print report.
- Connection box (code: **7107-3**) is needed to connect interface boxes, when two or more interface boxes are used. Maximum 4 interface boxes can be connected.

LINEAR GAGE SPECIFICATION

Code	7107-11	7107-12
Measuring range	12mm/0.47"	12mm/0.47"
Resolution	0.01mm/0.0004"	0.001mm/0.00004"
Accuracy	20μm	5μm
Hysteresis	10μm	2μm
Measuring principle	capacity system	
Voltage	5V	
Sampling frequency	100 times/sec.	
Working life	ten million times	
Dust/waterproof	IP65	
Measuring force	1.5N	
Cable length	2m	
Data output	RS232	

INTERFACE BOX SPECIFICATION

Code	7107-1	7107-2
Quantity of linear gages to be connected	4 pcs	8 pcs
Data output	RS232 and RS485	
Power supply	DC 9~24V	

CONNECTION BOX (OPTIONAL) SPECIFICATION

Code	7107-3
Quantity of interface boxes to be connected	4 pcs (maximum 4 interface boxes can be connected)
Data output	RS232 and RS485
Power supply	DC 9~24V

ZEROING FOOT SWITCHES

- For zeroing of digital indicators



7360-1

application



Code	Description	Interface of digital indicators	Applicable products
7360-1	zeroing foot switch with cable (length 2.5m)		 for digital indicators
7360-1M			

DIGITAL INDICATORS (FOR HIGH SPEED MOVING OF SPINDLE)

ATTENTION: LARGE POWER CONSUMPTION,
A BATTERY CAN BE USED FOR ABOUT HALF A YEAR

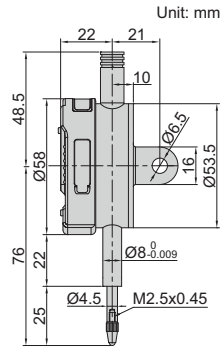
spindle lift knob is included



- For high speed moving of spindle
- Large power consumption, a battery can be used for about half a year
- Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Keep preset data in memory after restart
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7315-50M**, **7302-40M**, **7305-40M**), backs (page 164~165), contact points (page 161~163)

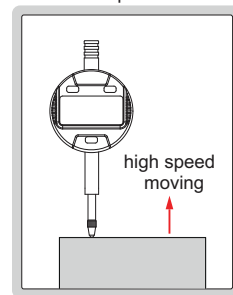


2120-10



2120-10
2120-101

for high speed moving
of spindle



Resolution 0.001mm/0.00005"

Code	Range	Accuracy	Hysteresis	Remark
2120-101F*	12.7mm/0.5"	5μm	2μm	flat back
2120-101*	12.7mm/0.5"	5μm	2μm	lug back

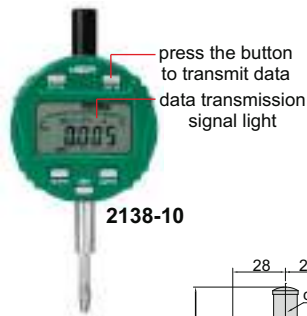
* Supplied with manufacturer inspection certificate traceable to NIST USA

Resolution 0.01mm/0.0005"

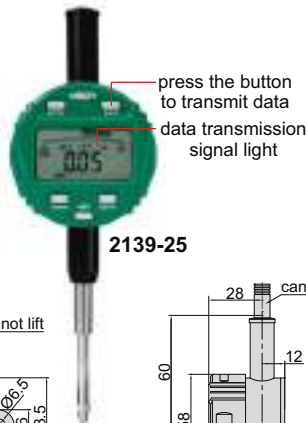
Code	Range	Accuracy	Hysteresis	Remark
2120-10F*	12.7mm/0.5"	20μm	10μm	flat back
2120-10*	12.7mm/0.5"	20μm	10μm	lug back

DIGITAL INDICATORS (WITH TRANSMISSION BUTTON AND SIGNAL LIGHT)

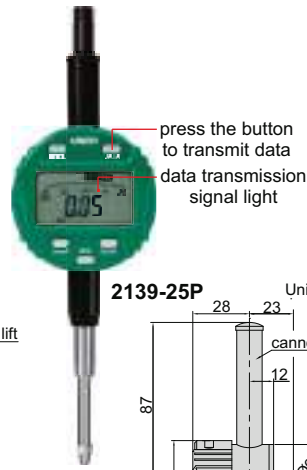
DATA
OUTPUT



2138-10



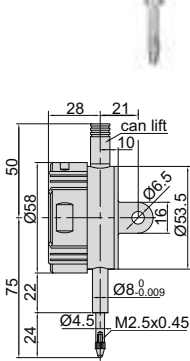
2139-25



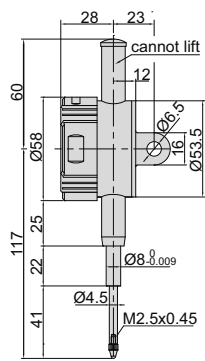
2139-25P



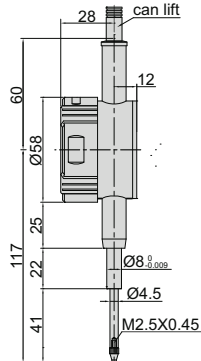
2138-50



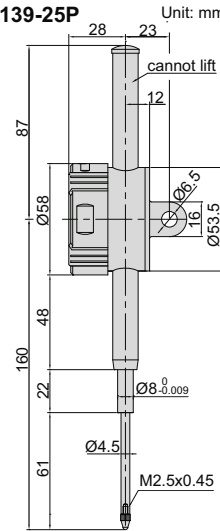
2138-10
2139-10



2138-25
2139-25

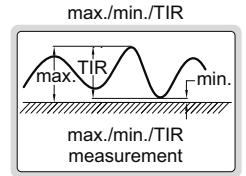


2138-25P
2139-25P

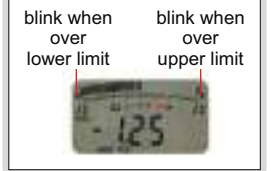


2138-50
2139-50

- Reading in digital and analog
- Display can be rotated by 320°
- Button function: on/off, zero, tolerance Go and No-Go display, data preset, measuring direction change, max./min./TIR measurement, inch/metric conversion, absolute/incremental measurement, data output
- 0-6 hours automatic power off time can be set
- Keep preset data and tolerance data in memory after restart
- CR2032 battery, automatic power off
- Data output
- Optional accessory: data output cable (code **7315-50M**, **7302-40M**, **7305-40M**), backs (page 164~165), contact points (page 161~163)



warning when over tolerance



spindle lift knob
is included



analog pointer

analog pointer



Resolution 0.001mm/0.00005"

Code	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2138-10F*	12.7mm/0.5"	5μm	2μm	1.5N	flat back
2138-25F*	25.4mm/1"	5μm	3μm	2.2N	flat back
2138-50F*	50.8mm/2"	6μm	3μm	2.5N	flat back
2138-10*	12.7mm/0.5"	5μm	2μm	1.5N	lug back
2138-25*	25.4mm/1"	5μm	3μm	2.2N	lug back
2138-50*	50.8mm/2"	6μm	3μm	2.5N	lug back
2138-25P*	25.4mm/1"	5μm	3μm	2.2N	flat back, with lift cap
2138-50P*	50.8mm/2"	6μm	3μm	2.5N	flat back, with lift cap

Resolution 0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	Maximum measuring force	Remark
2139-10F*	12.7mm/0.5"	20μm	10μm	1.5N	flat back
2139-25F*	25.4mm/1"	20μm	10μm	2.2N	flat back
2139-50F*	50.8mm/2"	30μm	10μm	2.5N	flat back
2139-10*	12.7mm/0.5"	20μm	10μm	1.5N	lug back
2139-25*	25.4mm/1"	20μm	10μm	2.2N	lug back
2139-50*	50.8mm/2"	30μm	10μm	2.5N	lug back
2139-25P*	25.4mm/1"	20μm	10μm	2.2N	flat back, with lift cap
2139-50P*	50.8mm/2"	30μm	10μm	2.5N	flat back, with lift cap

320°

display can be
rotated by 320°

2138-25P/50P
2129-25P/50P

pull lift cap
to lift point



*Supplied with manufacturer inspection certificate traceable to NIST USA

LINEAR BALL BEARINGS
FOR TEN MILLION TIMES USE

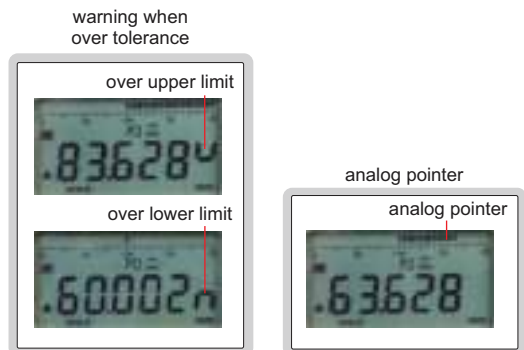
ABSOLUTE ENCODER, THE ORIGINAL
DATA REMAINS AFTER POWER OFF

DATA
OUTPUT

ATTENTION: RECHARGEABLE BATTERY,
FOR 24 HOURS CONTINUOUS WORKING

**INSPECTION
CERTIFICATE**
TRACEABLE TO NIST

HIGH PRECISION DIGITAL INDICATORS



2133-10

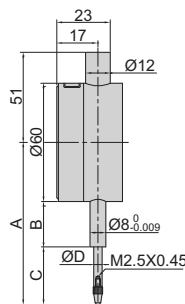


2133-25

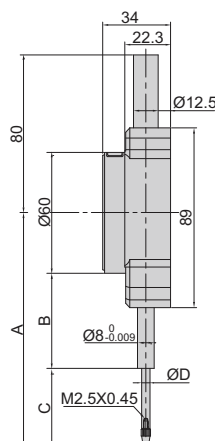


2133-50

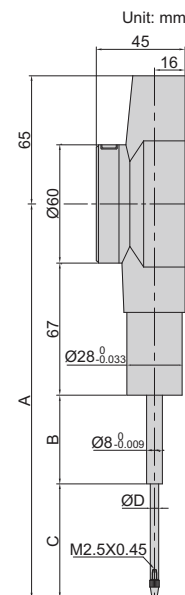
- Linear ball bearings for ten million times use
- Absolute encoder, the original data remains after power off
- Reading in digital and analog
- Data output
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, mm/inch, adjust resolution
- Power: rechargeable battery, for 24 hours continuous working
- Optional accessory: contact points (page 161~163) wireless transmitter, code **7315-60** data output cable (keyboard format), code **7302-60** data output cable (serial port format), code **7305-G60** (cable length 3m, optional cable length maximum 15m; RS232 protocol, optional RS485 protocol)



2133-10
2133-101



2133-25
2133-251



2133-50

Low precision

Carbide probe

Adjustable resolution: 0.0005mm/0.00002"
0.001mm/0.00005"
0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	A	B	C	ØD	Remark
2133-10*	12.7mm/0.5"	3µm	1.5µm	75.4mm	20.6mm	24.8mm	5mm	flat back
2133-25*	25.4mm/1"	3µm	1.5µm	109.5mm	38.5mm	41mm	5mm	flat back
2133-50*	50.8mm/2"	3µm	1.5µm	201mm	32mm	72mm	4.5mm	flat back

High precision

Ruby probe

Adjustable resolution: 0.0002mm/0.00001"
0.001mm/0.00005"
0.01mm/0.0005"

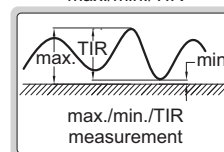
Code	Range	Accuracy	Hysteresis	A	B	C	ØD	Remark
2133-101*	12.7mm/0.5"	1.5µm	1µm	77.4mm	26mm	21.4mm	4mm	flat back
2133-251*	25.4mm/1"	1.8µm	1µm	116.1mm	42.5mm	44mm	4mm	flat back

* Supplied with manufacturer inspection certificate traceable to NIST USA

spindle lift knob is included



max./min./TIR



HIGH PRECISION DIGITAL INDICATORS

ABSOLUTE ENCODER, THE ORIGINAL
DATA REMAINS AFTER POWER OFF

Ø28MM STEM SUITABLE FOR
REINFORCED CLAMPING

DATA
OUTPUT

LINEAR BALL BEARINGS
FOR TEN MILLION TIMES USE

ATTENTION: RECHARGEABLE BATTERY,
FOR 24 HOURS CONTINUOUS WORKING

- Linear ball bearings for ten million times use
- Ø28mm stem suitable for reinforced clamping
- Absolute encoder, the original data remains after power off
- Adjustable resolution: 0.0002mm/0.00001"
0.001mm/0.00005"
0.01mm/0.0005"
- Reading in digital and analog
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, mm/inch, adjust resolution
- Power: rechargeable battery, for 24 hours continuous working
- Ruby probe

With data interface

Optional accessory:

wireless transmitter, code **7315-60**, wireless receiver, code **7315-2**, **7315-3**

data output cable (keyboard format), code **7302-60**

data output cable (serial port format), code **7305-G60**

(cable length 3m, optional cable length maximum 15m; RS232 protocol, optional RS485 protocol)

Code	Range	Accuracy	Hysteresis	Remark
2140-6	0-6mm/0-0.24"	1.6µm	0.8µm	flat back

Built-in wireless

Optional accessory:

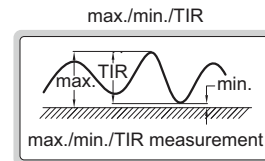
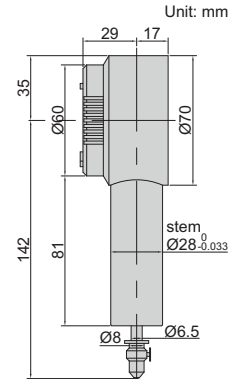
wireless receiver (keyboard format), code **2134-R1**

wireless receiver (serial port format), code **2134-R2**

Code	Range	Accuracy	Hysteresis	Remark
2140-6WL	0-6mm/0-0.24"	1.6µm	0.8µm	flat back



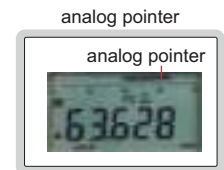
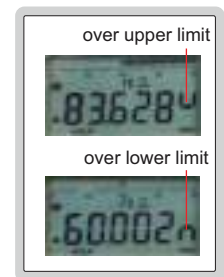
2140-6



wireless receiver
2134-R1, 2134-R2 (optional)



warning when
over tolerance



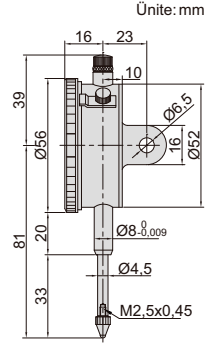
KOMPARATÖR SAATİ (PROMOSYON MODEL)

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

karton kutu



2302-25



- Limit uçları ve çerçeve kelepçesi ile tedarik edilir
- Karton kutudadır
- Opsiyonel aksesuar: arka kapaklar (sayfa 94-95), temas uçları (sayfa 92-93)

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2302-25F *	25mm	0,01mm	35µm	7µm	1mm	0-100	düz kapak
2302-25 *	25mm	0,01mm	35µm	7µm	1mm	0-100	yedek düz arkalı kulaklı kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir

- Hassasiyet: 0,01mm
- DIN878 Standardına uygundur
- Darbeye dayanıklı
- IP67 toz/suya dayanıklı
- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar:
temas uçları (sayfa 92-93)



2894-10F

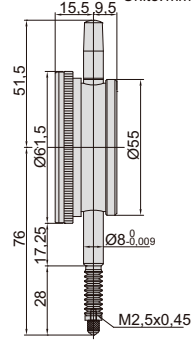
Kod	Ölçüm aralığı	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2894-10F *	10mm	17µm	3µm	1mm	0-100	düz kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir

SU GEÇİRMEZ KOMPARATÖR SAATI

INSIZE PLUS
ALMAN MALI

Ünite: mm



IP67
SUGEÇİRMEZ

DARBEE
DAYANIKLI

- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar:
temas uçları (sayfa 92-93)



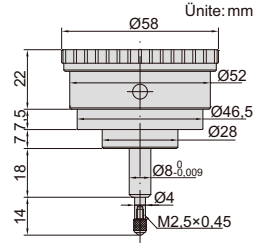
2893-3

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma
2893-3 *	3mm	0,01mm	15µm	5µm	1mm	0-100

* Üretici kalibrasyon sertifikası ile tedarik edilir

KOMPARATÖR SAATİ (YATAY EKRAN)

INSIZE PLUS
ALMAN MALI



**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

- Hassasiyet: 0,01mm
- DIN878 Standardına uygundur
- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar:
arka kapaklar (sayfa 94-95),
temas uçları (sayfa 92-93)



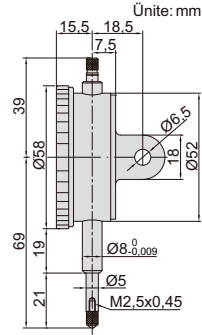
2892-10

Kod	Ölçüm aralığı	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2892-10 *	10mm	17µm	3µm	1mm	0-100	kulaklı kapak
2892-10F *	10mm	17µm	3µm	1mm	0-100	düz kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir

KOMPARATÖR SAATİ

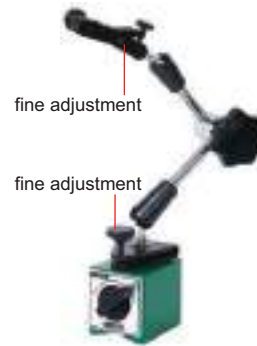
INSIZE PLUS
ALMAN MALI



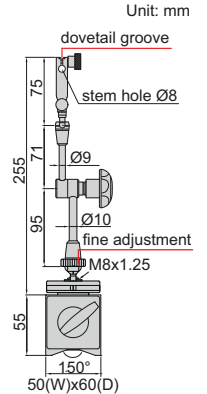
MAGNETIC STAND WITH TWO FINE ADJUSTMENTS

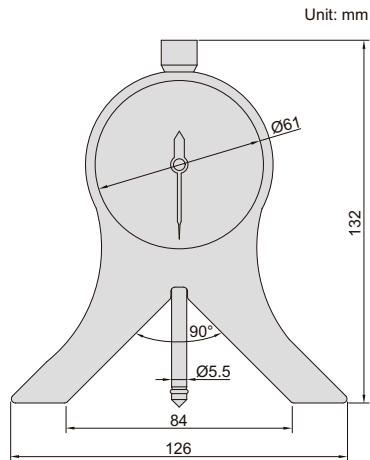
- With two fine adjustments on the head and on the base
- For digital/dial indicators and dial test indicators

Code	Magnetic force	Applicable holding stem	Remark
6272-80	80kgf	Ø8mm	with two fine adjustments and dovetail groove

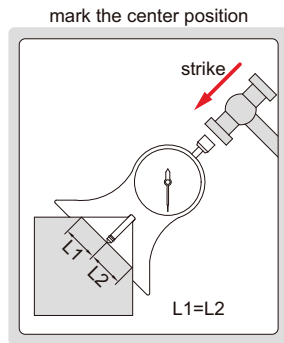


6272-80



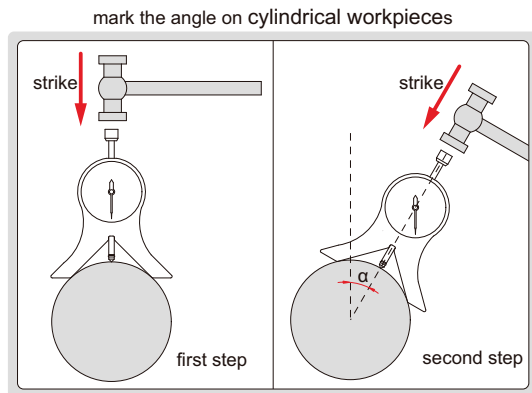


2849-90



- Mark the position when drilling, milling or welding, suitable for cylindrical and rectangular workpieces
- The punch hardness is HRC59-63
- Optional accessory: punch (code **2849-P1**)

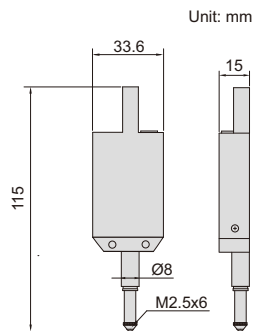
Code	Range	Graduation	Accuracy	Dial reading
2849-90	4×90°	1°	±1°	0-90-0-90-0



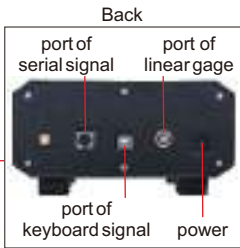
LINEAR GAGE AND DISPLAY UNIT



linear gage
7131-01



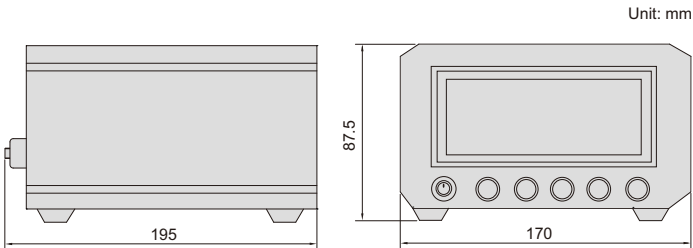
display unit
7131-1A



- Linear gage type: optical grating
- Display unit: display displacement data in real time, data preset, set tolerance and make judgment(out of upper tolerance, within tolerance, out of lower tolerance), set zero, change measuring direction, unit switch($\mu\text{m}/\text{mm}/\text{inch}$), two data transmission methods: can output keyboard signal and data can be transmitted to excel, word, txt etc, can also output serial signal and transmit data to serial communication software

LINEAR GAGE SPECIFICATION

Code	7131-01
Range	12.5mm
Resolution	0.1 μm
Accuracy(19~20°C)	1 μm
Repeatability	0.2 μm
Linear gage type	optical grating
Working life	ten million times
Dust/waterproof	IP50
Measuring force	0.7 $\pm$ 0.2N
Cable length	900mm
Operation environment	0~40°C, 20~80%RH
Power supply	5~24V
Dimension(L×W×H)	33.6×15×115mm
Weight	133g



DISPLAY UNIT SPECIFICATION

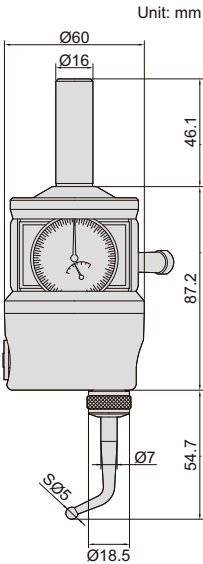
Code	7131-1A
Display	4" LCD screen
Unit	μm , mm, inch
Quantity of linear gage to be connected	1 pc
Dimension(L×W×H)	170×195×87.5mm
Weight	1.45kg



CENTERING INDICATOR

INSIZE PLUS

READING SHOWS MOVEMENT VALUE OF PROBE



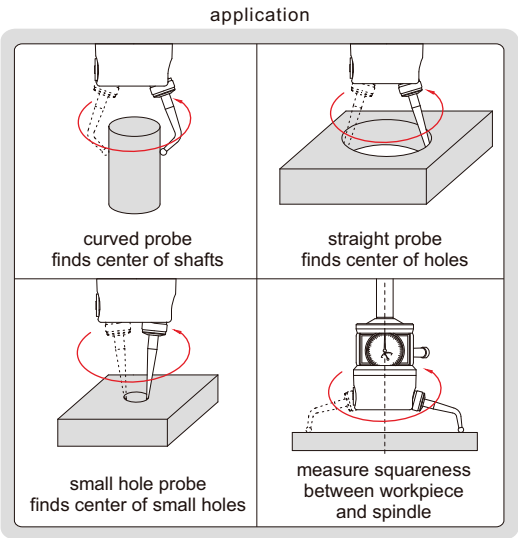
2847-3

- Provides quick and accurate shaft/hole centering in boring and milling set-up, can also measure squareness between workpiece and spindle
- Dial indicator can rotate 360°
- Reading show movement value of probe, for example, if probe moves 0.01mm, reading changes 0.01mm (2 graduations)
- Optional accessory: probes

Code	Graduation	Travel
2847-3	0.005mm	2.5mm

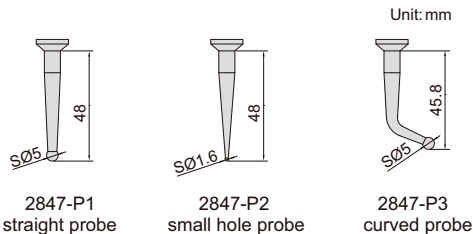
Specification of probe

Description	Measurement type	Diameter measurement	Depth measurement	Accuracy
straight probe (included)	hole center	Ø6-125mm	55mm	0.005mm
	squareness	Ø120-160mm	40mm	
small hole probe (optional)	small hole center	Ø2-125mm	55mm	0.005mm
	squareness	Ø120-160mm	40mm	
curved probe (included)	shaft center	Ø0-125mm	55mm	0.005mm
	squareness	Ø120-160mm	40mm	



Probe (optional)

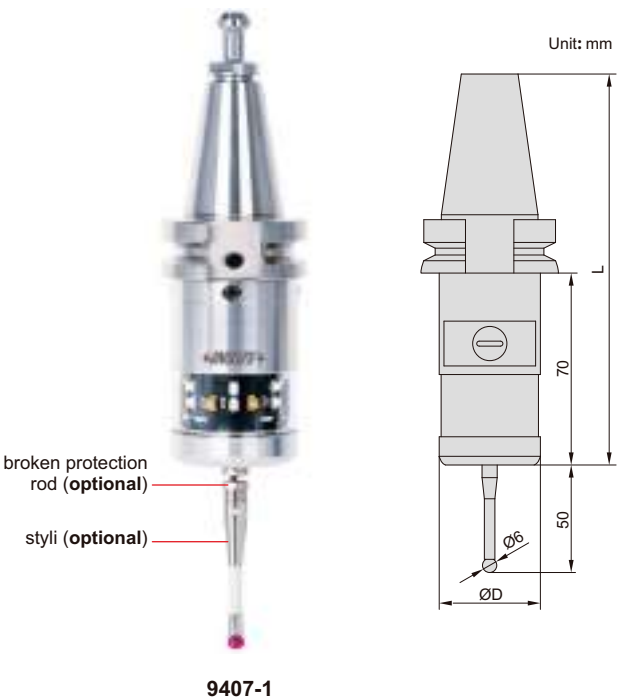
Code	Description
2847-P1	straight probe
2847-P2	small hole probe
2847-P3	curved probe



OPTICAL TRANSMISSION PROBES FOR CNC MACHINE TOOLS



IP68
WATERPROOF



- On-machine measurement
- Multi-channel transmission between probes and receivers, for anti-interference
- Transmit three kinds of signals: trigger, contact and low battery voltage
- With spindle protection function
- Optical transmission range: 1m, 3m, 5m
- Automatic power off in 3 seconds, move styli to power on

OPTICAL PROBE SPECIFICATION

Code	9407-1	9407-2	9407-3	9407-4	9407-5
Probe length (L)	140mm	180mm	180mm	180mm	180mm
Probe diameter (ØD)	40mm	46.5mm	46.5mm	46.5mm	46.5mm
Trigger accuracy of styli in any direction	1µm				
Protection stroke triggered by styli in all directions	X and Y axis stroke: ±12.5°, Z axis stroke: 5mm				
Trigger force of styli in all directions	X and Y axis: 0.9N, Z axis: 6N				
Applicable spindle*	BT30	BT50	BT40	HSK63A	CAT40
Dust/waterproof	IP68				
Power supply	2×LS14250 lithium battery				

* HSK, SK and ISO series spindles also can be customized.

RECEIVER SPECIFICATION

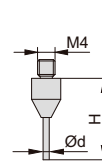
Code	9407-1A
Protection function	low battery voltage or probe transmitting signal all the time **
Applicable probe	code 9407-1, 9407-2
Cable length	5m
Dust/waterproof	IP68

** When the battery voltage is low or the probe transmits signal all the time, the receiver will send a signal to the machine tool to stop working.

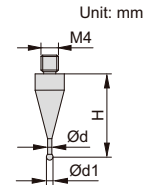
STYLI (OPTIONAL)

(mm)

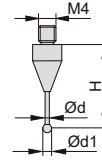
Code	H	Ød	Ød1	Material of measuring face
9407-P1	20	1	—	carbide
9407-P2	19.5	0.7	1	ruby
9407-P3	19	1.4	2	ruby
9407-P4	20	0.7	1	ruby
9407-P5	20	1.5	2	ruby
9407-P6	20	2	3	ruby
9407-P7	20	2	4	ruby
9407-P8	50	3	4	ruby
9407-P9	50	3.8	5	ruby
9407-P10	50	4.5	6	ruby
9407-P11	75	3.8	5	ruby



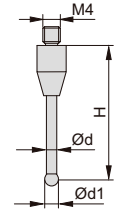
9407-P1



9407-P2



9407-P3



9407-P4~9407-P11

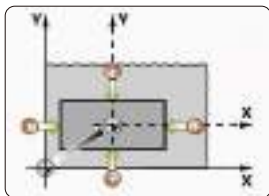
BROKEN PROTECTION ROD (OPTIONAL)

Unit: mm

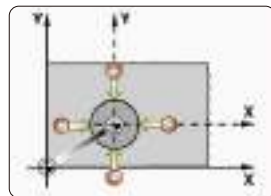
Code	H
9407-R1	12mm
9407-R2	22mm



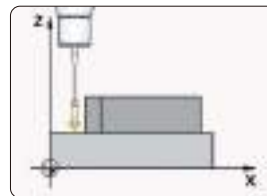
application



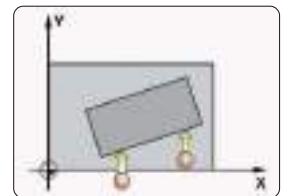
find center of rectangular boss



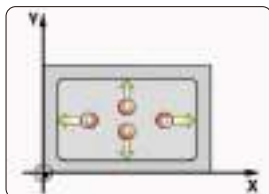
find center of the round boss



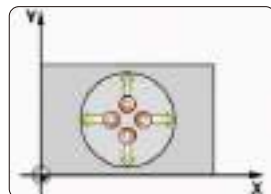
measure position of point on any axis



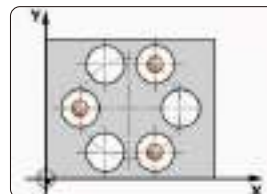
measure inclination of line



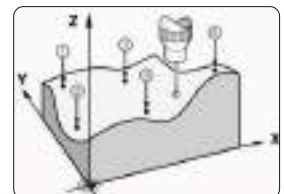
measure rectangular cavity



measure round cavity



measure center of holes

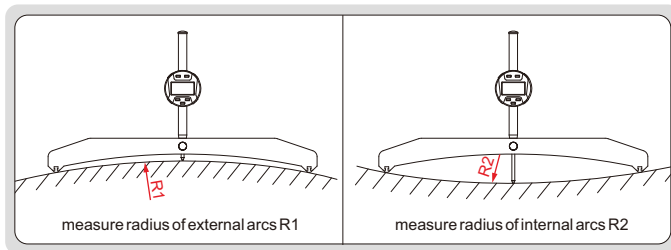
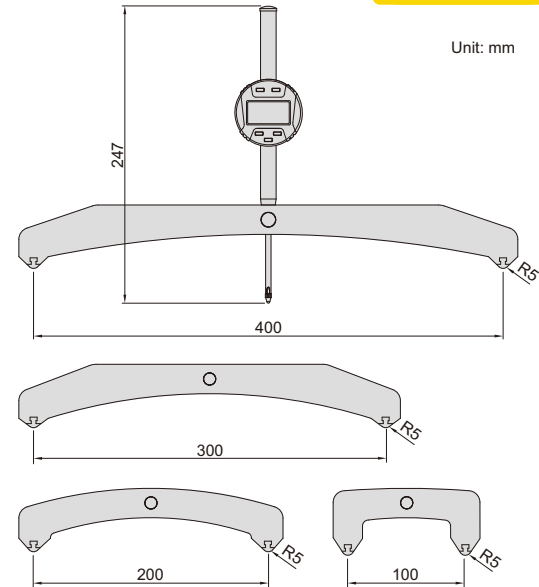


measure freeform surfaces

LARGE RANGE DIGITAL RADIUS GAGE

ATTENTION:
NO DATA OUTPUT

Unit: mm



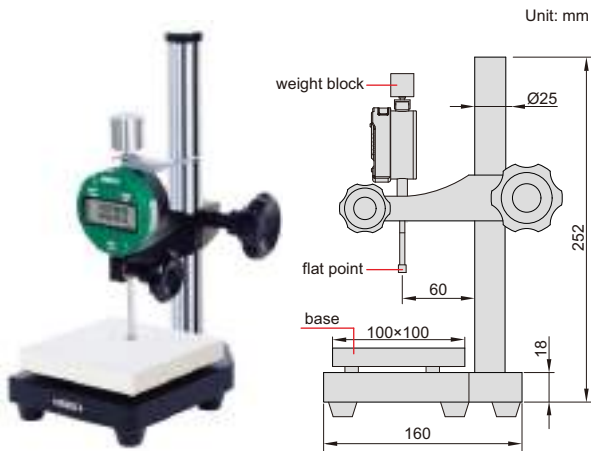
- Measure radius of internal or external arcs
- Resolution: 0.005mm/0.0002"
- Buttons: on/off, hold, mm/inch, s (select jaws), zero
- Display can be rotated by 320°
- Supplied with 4 jaws for different sizes of arc
- Battery CR2032, automatic power off

Code	Range of external radius (R1)	Range of internal radius (R2)	Accuracy (mm)
2197	100-15000mm/4-590"	100-15000mm/4-590"	±0.005R*

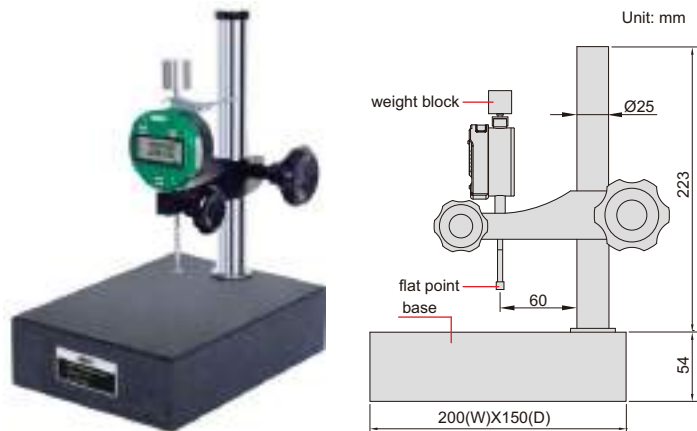
* R is the radius to be measured. For example, radius is 100mm, the accuracy is $\pm 0.005 \times 100 = \pm 0.5\text{mm}$

DIGITAL RUBBER THICKNESS GAGES

DATA
OUTPUT



2878-6B



2878-71B

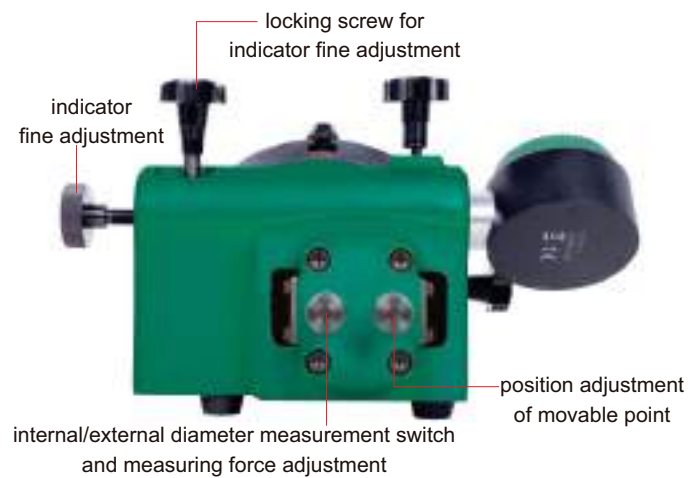
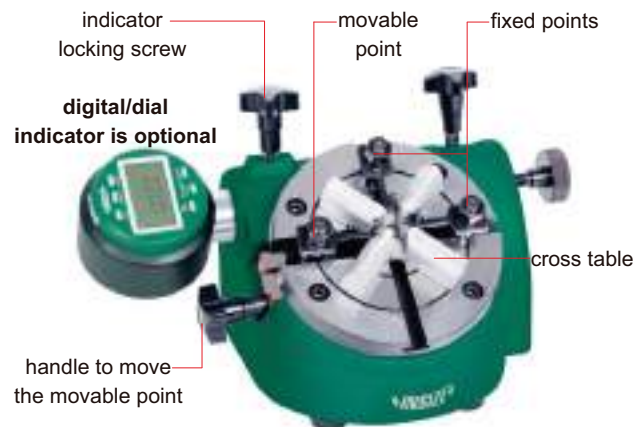
- Measure thickness of vulcanized rubber and plastic products
- Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- CR2032 battery, automatic power off (time is adjustable)
- Supplied with dust cover
- Optional accessory: data output cable (code **7315-50M**, **7302-50M**, **7305-50M**), flat points, weight blocks

Code	Range	Resolution	Accuracy	Flat point diameter	Pressure	Base
2878-6A	12.7mm/0.5"	0.01mm/0.0005"	20µm	6mm	22kPa±5kPa	ceramic, plain, flatness 1.5µm
2878-6B	12.7mm/0.5"	0.001mm/0.00005"	5µm	6mm	22kPa±5kPa	ceramic, plain, flatness 1.5µm
2878-71A	12.7mm/0.5"	0.01mm/0.0005"	20µm	6mm	22kPa±5kPa	granite, plain, flatness 2.5µm
2878-71B	12.7mm/0.5"	0.001mm/0.00005"	5µm	6mm	22kPa±5kPa	granite, plain, flatness 2.5µm

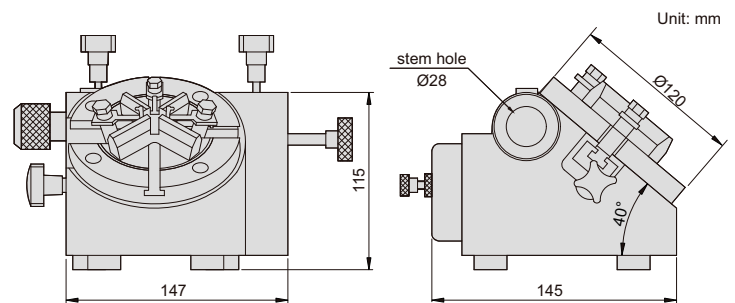
Flat points and weight blocks (Optional)

Flat point diameter	Flat point code	Pressure				
		10kPa±2kPa	22kPa±5kPa	20kPa±3kPa	70kPa±5kPa	1.6kPa±0.1kPa
		Weight block code	Weight block code	Weight block code	Weight block code	Weight block code
4mm	2878-P4	—	2878-W4B	—	—	—
5mm	2878-P5	2878-W5A	2878-W5B	2878-W5C	2878-W5D	—
6mm	2878-P6	2878-W6A	2878-W6B	—	—	—
8mm	2878-P8	2878-W8A	2878-W8B	—	—	—
10mm	2878-P10	2878-W10A	2878-W10B	2878-W10C	—	—
25mm	2878-P25	—	—	—	—	2878-W25E
1x4mm (rectangle)	2878-P14	—	—	—	2878-W14D	—

INTERNAL AND EXTERNAL DIAMETER COMPARISON INSTRUMENT



- Measure internal/external diameter, variation and taper
- Total range of movable point: 2mm, effective range of movable point: $\pm 0.1\text{mm}$
- Groove probe and tray probe are included
- Optional accessory: $\varnothing 28\text{mm}/\varnothing 8\text{mm}$ bush (code **6843-B8**), 0.001mm digital/dial indicators, high precision digital indicators (code **2140-6**, **2140-6WL**)



Code	Applicable holding stem	Range of internal diameter	Range of external diameter	Accuracy	Repeatability
6844-100	$\varnothing 28\text{mm}$	20-100mm/0.8-3.9"	15-80mm/0.6-3.1"	$\pm 0.001\text{mm}$	0.001mm

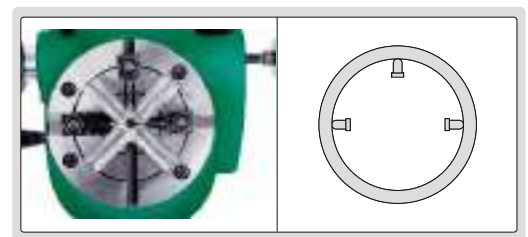
groove probe (included)



cross table (included, work with groove probe)



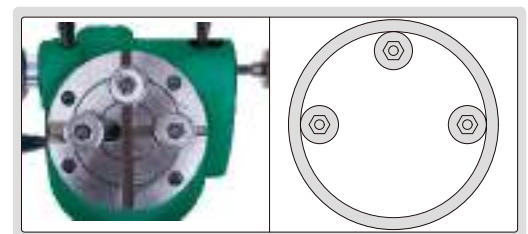
groove probe to measure internal diameter



tray probe (included)



tray probe to measure internal diameter



$\varnothing 28\text{mm}/\varnothing 8\text{mm}$ bush (optional)

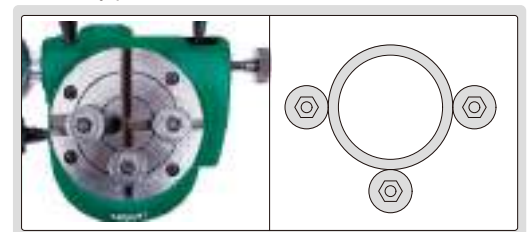
Code
6843-B8



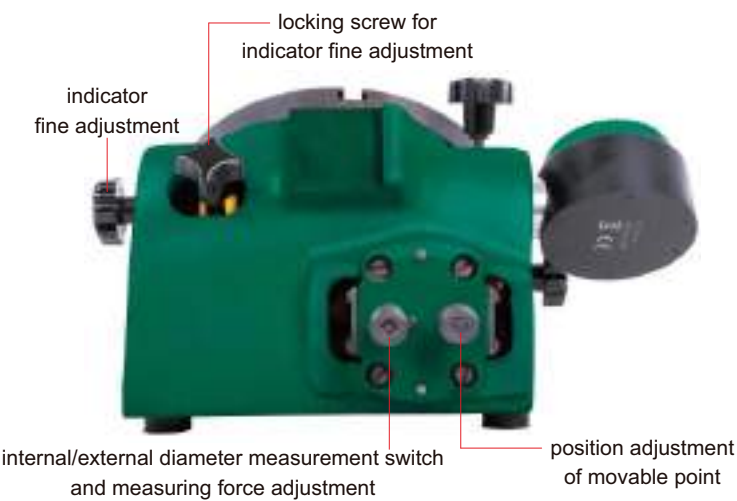
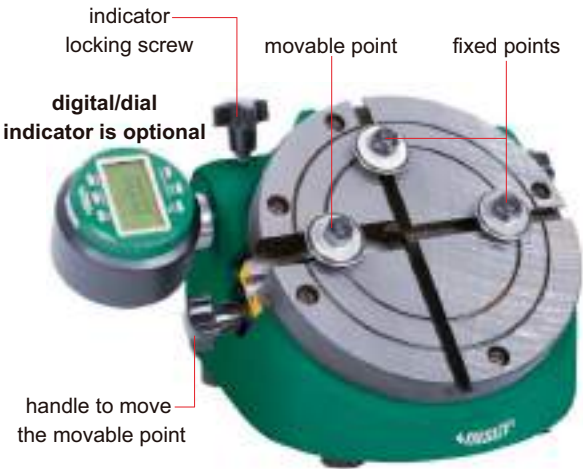
application



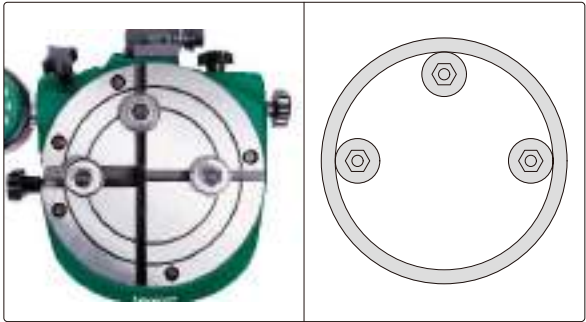
tray probe to measure external diameter



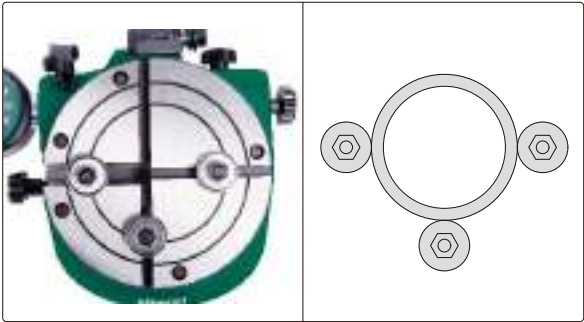
INTERNAL AND EXTERNAL DIAMETER COMPARISON INSTRUMENT



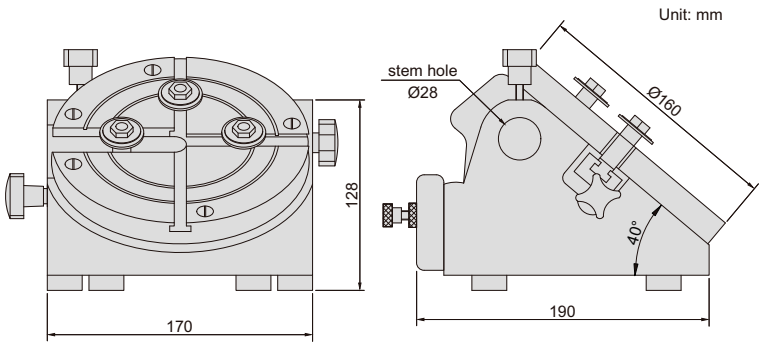
internal diameter measurement



external diameter measurement



- Measure internal/external diameter, variation and taper
- Total range of movable point: 2mm, effective range of movable point: $\pm 0.1\text{mm}$
- Optional accessory: $\varnothing 28\text{mm}/\varnothing 8\text{mm}$ bush (code **6843-B8**), 0.001mm digital/dial indicators, high precision digital indicators (code **2140-6**, **2140-6WL**)



Code	Applicable holding stem	Range of internal diameter	Range of external diameter	Accuracy	Repeatability
6843-140	$\varnothing 28\text{mm}$	50-140mm/2-5.5"	30-120mm/1.2-4.7"	$\pm 0.001\text{mm}$	0.001mm

$\varnothing 28\text{mm}/\varnothing 8\text{mm}$ bush (optional)

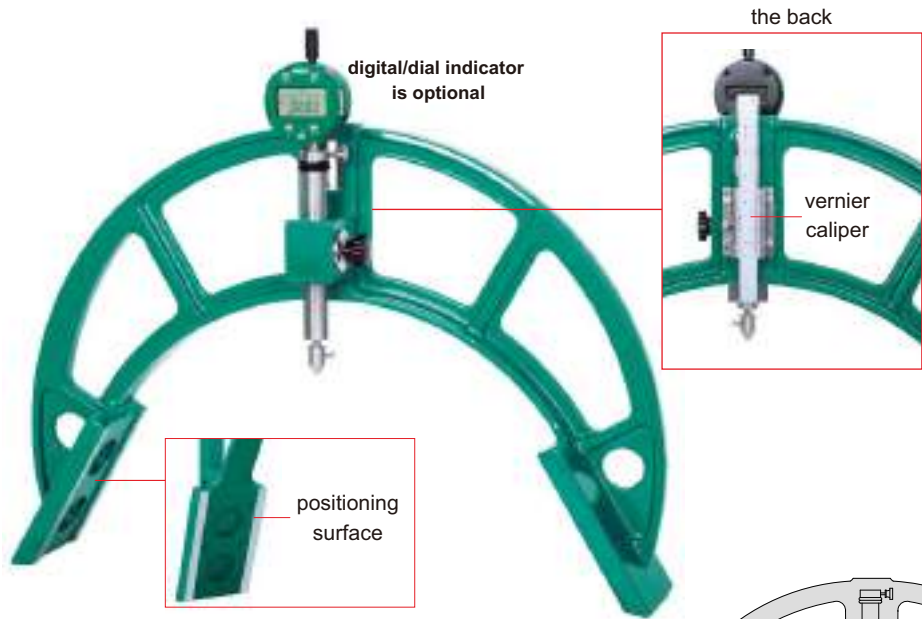
Code
6843-B8



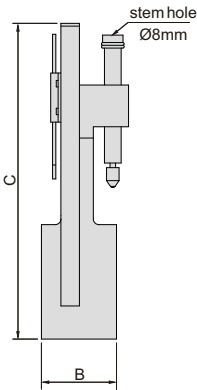
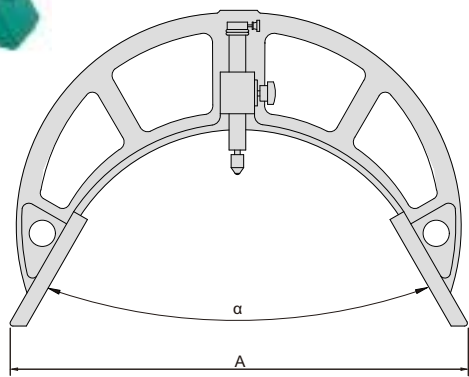
application



OUTSIDE DIAMETER MEASURING INSTRUMENTS



- Comparison measurement by digital/dial indicators. Need standard workpieces to set zero. Measure diameter/convex/concave/taper/roundness and other parameters, can also measure the wear and surface scratch of the workpieces
- Diameter measurement by vernier caliper, graduation: 0.02mm
- The frame is made of aluminum magnesium alloy with light weight and high strength
- Optional accessory: 0.01mm or 0.001mm digital/dial indicators



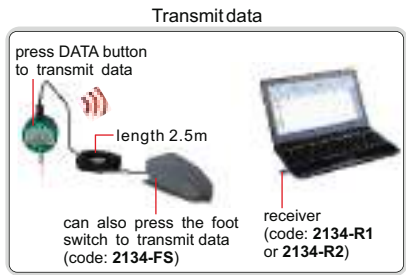
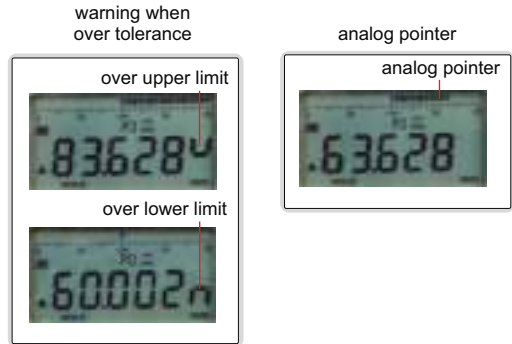
(mm)							
Code	Range	Repeatability (by digital/dial indicators)	Accuracy (by vernier caliper)	α	A	B	C
2716-60	18-60	0.01mm	0.04mm	60°	140	60	160
2716-120	60-120	0.01mm	0.04mm	60°	160	65	192
2716-200	120-200	0.01mm	0.04mm	60°	225	70	228
2716-300	200-300	0.01mm	0.04mm	60°	330	80	262
2716-400	300-400	0.01mm	0.04mm	60°	405	80	303
2716-500	400-500	0.01mm	0.04mm	60°	494	80	340
2716-600	500-600	0.01mm	0.04mm	60°	594	80	398
2716-700	600-700	0.01mm	0.04mm	60°	685	80	446
2716-800	700-800	0.01mm	0.04mm	60°	772	80	479
2716-900	800-900	0.01mm	0.04mm	60°	860	80	520
2716-1000	900-1000	0.01mm	0.04mm	60°	950	80	560
2716-1100	1000-1100	0.01mm	0.04mm	60°	1035	90	575
2716-1200	1000-1200	0.01mm	0.08mm	83.62°	960	100	460
2716-1300	1100-1300	0.01mm	0.08mm	83.62°	1000	100	485
2716-1400	1200-1400	0.01mm	0.08mm	83.62°	1100	100	512
2716-1600	1400-1600	0.01mm	0.08mm	83.62°	1260	100	540
2716-1800	1600-1800	0.01mm	0.08mm	83.62°	1460	100	570
2716-2000	1800-2000	0.01mm	0.08mm	83.62°	1645	100	605

WIRELESS HIGH PRECISION DIGITAL INDICATORS

LINEAR BALL BEARINGS
FOR TEN MILLION TIMES USE

ABSOLUTE ENCODER, THE ORIGINAL
DATA REMAINS AFTER POWER OFF

**INSPECTION
CERTIFICATE**
TRACEABLE TO NIST



- Built-in wireless transmission, ZigBee singal
- Linear ball bearings for ten million times use
- Absolute encoder, the original data remains after power off
- Reading in digital and analog
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, mm/inch, adjust resolution
- Power: rechargeable battery, for 24 hours continuous working
- Optional accessory: contact points (page 161~163) foot switch, code: **2134-FS** wireless receiver, code: **2134-R1** (keyboard format) **2134-R2** (serial port format)

Low precision

Carbide probe

Adjustable resolution: 0.0005mm/0.00002"
0.001mm/0.00005"
0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	A	B	C	ØD	Remark
2134-10*	12.7mm/0.5"	3µm	1.5µm	75.4	20.6	24.8	5	flat back
2134-25*	25.4mm/1"	3µm	1.5µm	109.5	38.5	41	5	flat back
2134-50*	50.8mm/2"	3µm	1.5µm	—	—	—	—	flat back

High precision

Ruby probe

Adjustable resolution: 0.0002mm/0.00001"
0.001mm/0.00005"
0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	A	B	C	ØD	Remark
2134-101*	12.7mm/0.5"	1.5µm	1µm	77.4	26	21.4	4	flat back
2134-251*	25.4mm/1"	1.8µm	1µm	116.1	42.5	44	4	flat back

* Supplied with manufacturer inspection certificate traceable to NIST USA

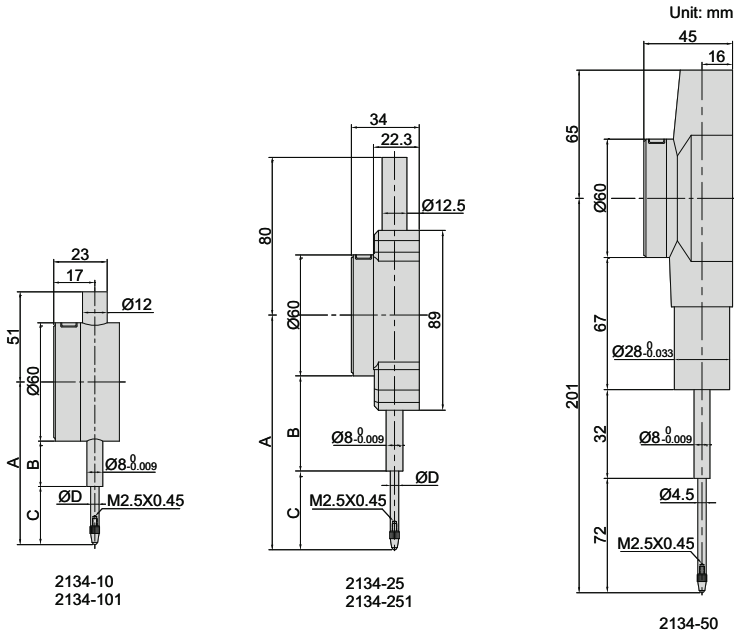
ATTENTION: RECHARGEABLE BATTERY,
FOR 24 HOURS CONTINUOUS WORKING



2134-10

2134-25

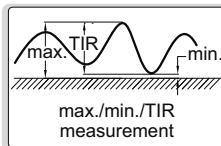
2134-50



spindle lift knob is included



max./min./TIR



WIRELESS HIGH PRECISION DIGITAL INDICATORS

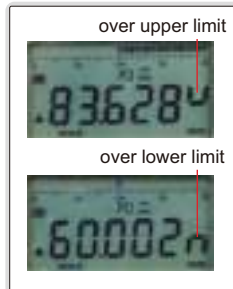
ATTENTION: RECHARGEABLE BATTERY,
FOR 24 HOURS CONTINUOUS WORKING

LINEAR BALL BEARINGS
FOR TEN MILLION TIMES USE

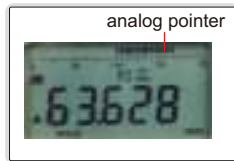
ABSOLUTE ENCODER, THE ORIGINAL
DATA REMAINS AFTER POWER OFF

**INSPECTION
CERTIFICATE**
TRACEABLE TO NIST

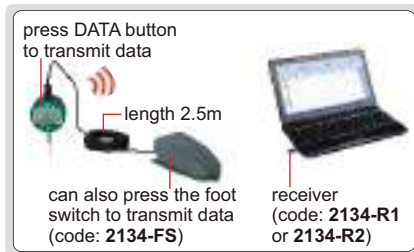
warning when
over tolerance



analog pointer



Transmit data



- Built-in wireless transmission, ZigBee singal
- Linear ball bearings for ten million times use
- Absolute encoder, the original data remains after power off
- Reading in digital and analog
- Button function: data output, tolerance, data preset, data hold, measuring direction change, max./min./TIR, power off time, on/off, mm/inch, adjust resolution
- Power: rechargeable battery, for 24 hours continuous working
- Optional accessory: contact points (page 173~175) foot switch, code: **2134-FS** wireless receiver, code: **2134-R1** (keyboard format) **2134-R2** (serial port format)

Low precision

Carbide probe

Adjustable resolution: 0.0005mm/0.00002"
0.001mm/0.00005"
0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	A	B	C	ØD	Remark
2134-10*	12.7mm/0.5"	3µm	1.5µm	75.4mm	20.6mm	24.8mm	5mm	flat back
2134-10L*	12.7mm/0.5"	3µm	1.5µm	75.4mm	20.6mm	24.8mm	5mm	lug back
2134-25*	25.4mm/1"	3µm	1.5µm	109.5mm	38.5mm	41mm	5mm	flat back
2134-50*	50.8mm/2"	3µm	1.5µm	201mm	32mm	72mm	4.5mm	flat back

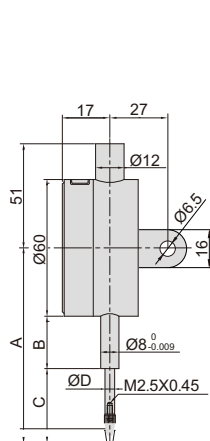
High precision

Ruby probe

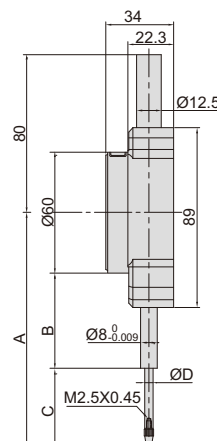
Adjustable resolution: 0.0002mm/0.00001"
0.001mm/0.00005"
0.01mm/0.0005"

Code	Range	Accuracy	Hysteresis	A	B	C	ØD	Remark
2134-101*	12.7mm/0.5"	1.5µm	1µm	77.4	26	21.4	4	flat back
2134-101L*	12.7mm/0.5"	1.5µm	1µm	77.4	26	21.4	4	lug back
2134-251*	25.4mm/1"	1.8µm	1µm	116.1	42.5	44	4	flat back

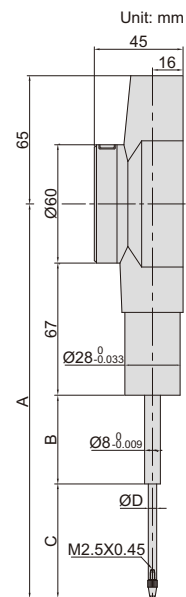
* Supplied with manufacturer inspection certificate traceable to NIST USA



2134-10L
2134-101L



2134-25
2134-251

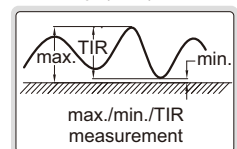


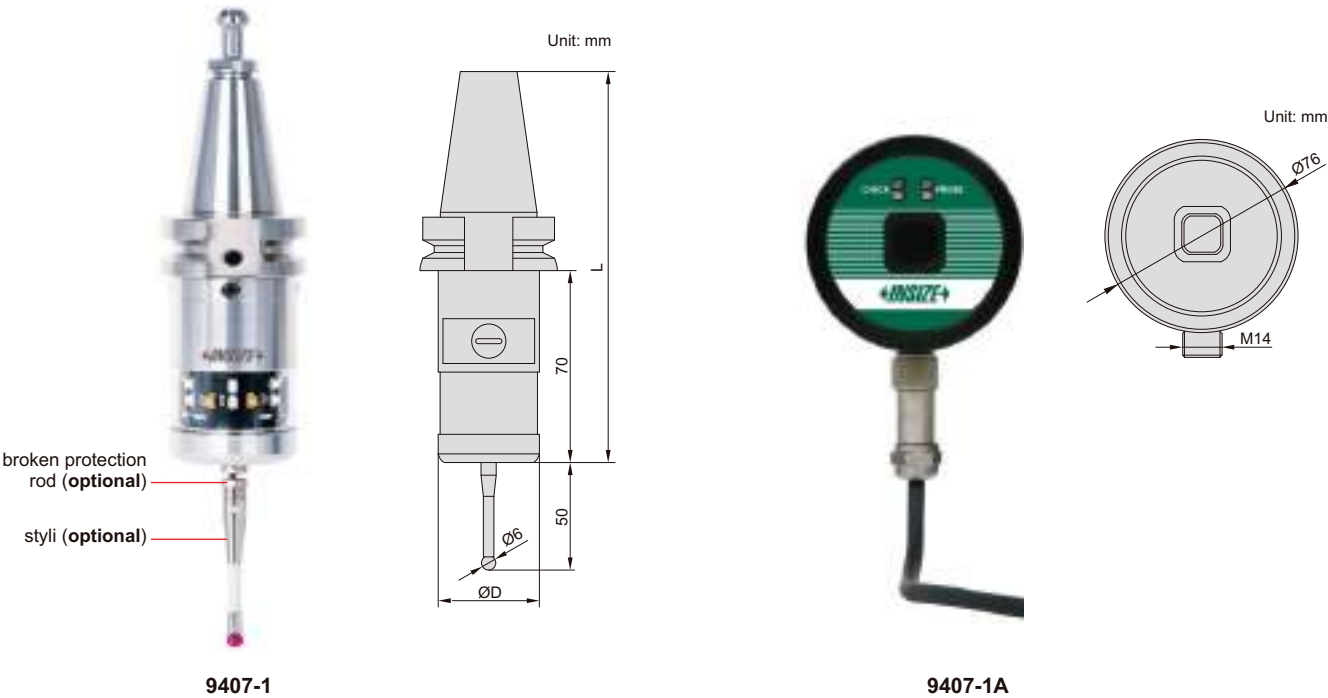
2133-50

spindle lift knob is included



max./min./TIR





- On-machine measurement
- Multi-channel transmission between probes and receivers, for anti-interference
- Transmit three kinds of signals: trigger, contact and low battery voltage
- With spindle protection function
- Optical transmission range: 1m, 3m, 5m
- Automatic power off in 3 seconds, move styli to power on

OPTICAL PROBE SPECIFICATION

Code	9407-1*	9407-2*
Probe length (L)	140mm	180mm
Probe diameter (ØD)	40mm	46.5mm
Trigger accuracy of styli in any direction	1µm	
Protection stroke triggered by styli in all directions	X and Y axis stroke: ±12.5°, Z axis stroke: 5mm	
Trigger force of styli in all directions	X and Y axis: 0.9N, Z axis: 6N	
Applicable spindle	BT30	BT50
Dust/waterproof	IP68	
Power supply	2×LS14250 lithium battery	

* 9407-1 can be customized to spindle below BT40, 9407-2 can be customized to spindle over BT50; HSK, SK and ISO series spindles also can be customized.

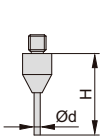
RECEIVER SPECIFICATION

Code	9407-1A	9407-2A
Protection function	no	low battery voltage or probe transmitting signal all the time **
Applicable probe	code 9407-1	code 9407-2
Cable length	5m	
Dust/waterproof	IP68	

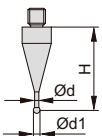
** When the battery voltage is low or the probe transmits signal all the time, the receiver will send a signal to the machine tool to stop working.

STYLI (OPTIONAL) (mm)

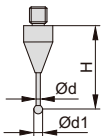
Code	H	Ød	Ød1	Material of measuring face
9407-P1	20	1	—	carbide
9407-P2	19.5	0.7	1	ruby
9407-P3	19	1.4	2	ruby
9407-P4	20	0.7	1	ruby
9407-P5	20	1.5	2	ruby
9407-P6	20	2	3	ruby
9407-P7	20	2	4	ruby
9407-P8	50	3	4	ruby
9407-P9	50	3.8	5	ruby
9407-P10	50	4.5	6	ruby
9407-P11	75	3.8	5	ruby



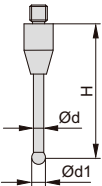
9407-P1



9407-P2



9407-P3



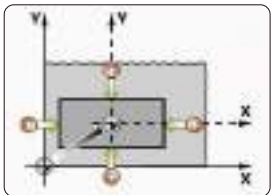
9407-P4~9407-P11

BROKEN PROTECTION ROD (OPTIONAL)

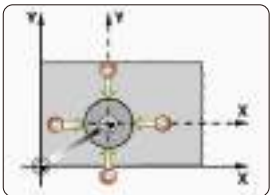
Code	H
9407-R1	12mm
9407-R2	22mm



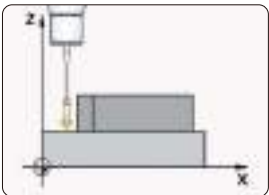
application



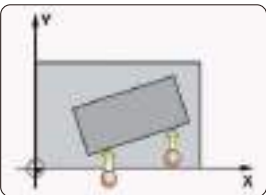
find center of rectangular boss



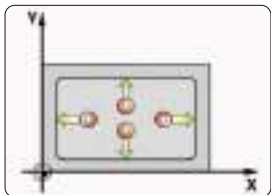
find center of the round boss



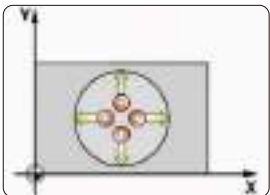
measure position of point on any axis



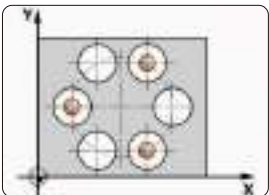
measure inclination of line



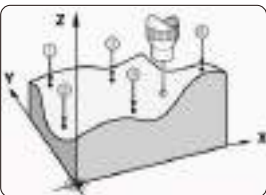
measure rectangular cavity



measure round cavity



measure center of holes



measure freeform surfaces

DIGITAL ROLLER THICKNESS GAGES

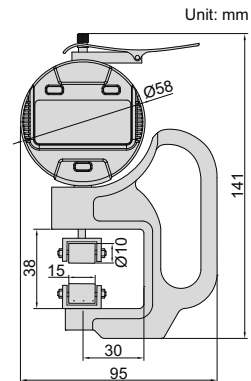
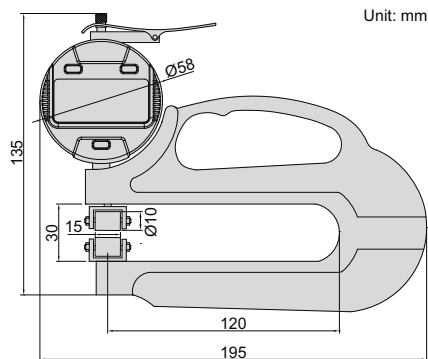
DATA
OUTPUT



2877-4

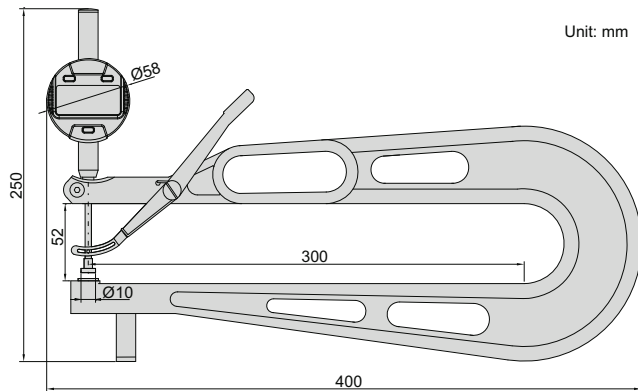


2877-10



Code	Range	Resolution	Accuracy
2877-4	0-4.5mm/0-0.18"	0.01mm/0.0005"	±0.02mm
2877-10	0-10mm/0-0.4"	0.01mm/0.0005"	±0.02mm

- Buttons: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Keep preset data in memory after restart
- Battery CR2032 , automatic power off
- Data output
- Optional accessory: data output cable (code **7315-50M**, **7302-50M**)



Unit: mm

Code	Range	Resolution	Accuracy
2860-25*	0-25.4mm/0-1"	0.01mm/0.0005"	±0.05mm

* Supplied with manufacturer inspection certificate

DIGITAL THICKNESS GAGE

INSIZE PLUS
MADE IN EUROPE



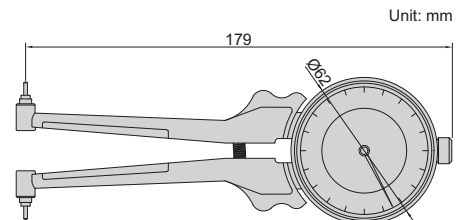
2860-25

- Buttons: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Keep preset data in memory after restart
- Battery CR2032 , automatic power off
- Data output
- Optional accessory: data output cable (code **7315-50M**, **7302-50M**)

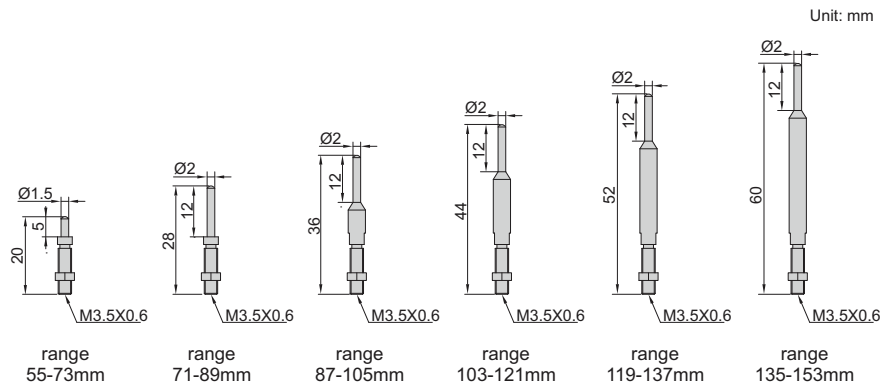
INTERNAL DIAL CALIPER GAGE WITH INTERCHANGEABLE POINTS



2223-153

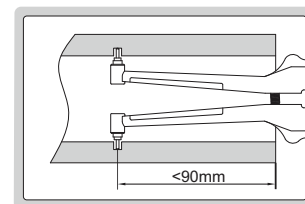


6 pair of points (included)



- Supplied with 6 pairs of points

Code	Range	Dial indicator range	Graduation	Accuracy
2223-153	55-153mm	2mm	0.01mm	±0.02mm

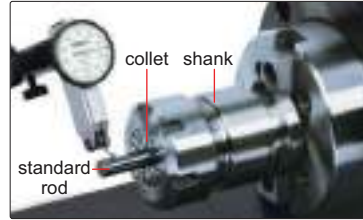


SHANK RUNOUT TESTERS

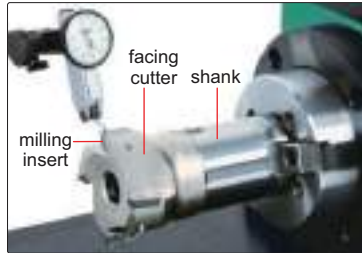
measure radial runout of shank



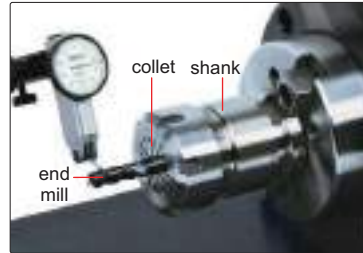
measure radial runout of collet



measure radial runout of cutter



measure radial runout of end mill



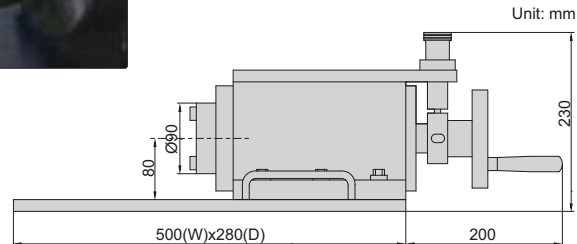
VIDEO



4771-30

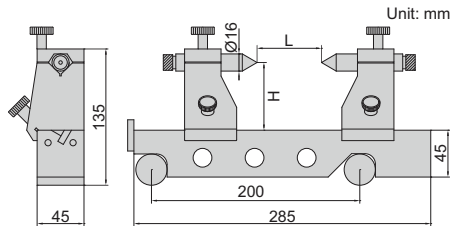
- Measure the radial runout of shanks, collets and cutting tools
- Optional accessory: dial test indicators, magnetic stands

Code	Taper	Accuracy
4771-30	BT30	1μm
4771-40	BT40	1μm
4771-50	BT50	1μm



standard shank
(included)





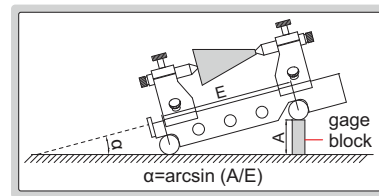
- Check the taper angle of taper bar/ taper plug gages/Morse taper/ISO taper etc. The run out can be checked as well
- Sine bar accuracy (when $\alpha=30^\circ$): ± 5 seconds

CAN BE
CUSTOMIZED



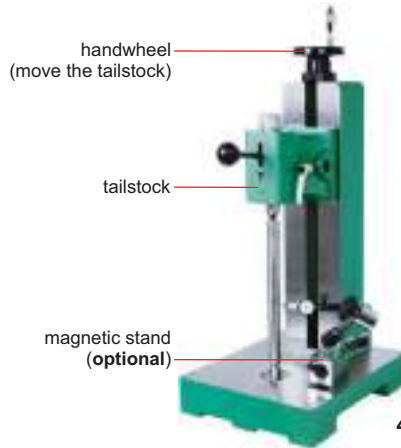
4157-200

TAPER INSPECTION INSTRUMENT

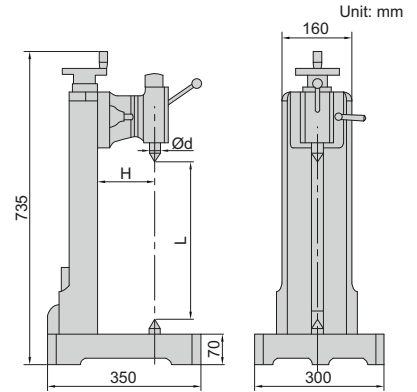


Code	Center height (H)	Center distance (L)
4157-200	65mm	200mm

VERTICAL BENCH CENTER



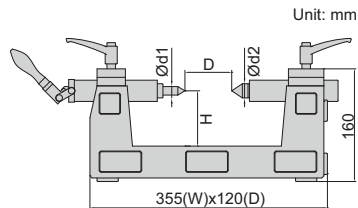
- Distance between two centers (L): 360mm
- Hardened cast-iron guide surface
- Use handwheel to move the tailstock
- Optional accessory:
magnetic stands, dial test indicators



Code	Parallelism*	Runout accuracy	Center height (H)	Diameter of center ($\varnothing d$)	Taper of center	Weight	Load
4728-360	0.01mm	2 μ m	130mm	24.1mm	MT3	85kg	80kg

*Parallelism of two centers to the guide surface

VERTICAL AND HORIZONTAL BENCH CENTER



- For vertical, side and horizontal use



horizontal use



side use



vertical use

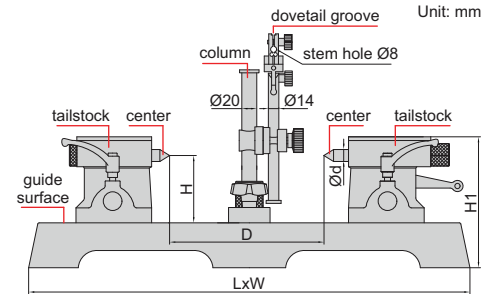
Code	Runout accuracy	Center height (H)	Distance between two centers (D)	Diameter of center (Ød1/Ød2)	Taper of center	Weight	Load
4722-200	2µm	80mm	200mm	12mm/20.2mm	MT1/MT3	22kg	25kg

BENCH CENTERS

- Movable column
- Optional accessory:
umbrella centers, rotary centers



4788-300



rotary centers
(optional)



umbrella centers
(optional)



High accuracy

(mm)

Code	Parallelism*	Runout accuracy	Center height (H)	Distance between two centers(D)	L	W	H1	Diameter of center (Ød)	Taper of center	Weight	Load
4788-300	0.010mm	2µm	90	300	590	192	175	18.0	MT2	34kg	25kg
4788-400	0.010mm	2µm	130	400	770	206	241	24.1	MT3	66kg	60kg
4788-600	0.010mm	2µm	130	600	930	220	250	24.1	MT3	90kg	60kg
4788-600H2	0.010mm	2µm	200	600	930	220	325	24.1	MT3	105kg	60kg
4788-1000	0.010mm	3µm	130	1000	1330	220	262	24.1	MT3	112kg	60kg
4788-1000H2	0.010mm	3µm	200	1000	1330	220	337	24.1	MT3	125kg	85kg
4788-1000H3	0.010mm	3µm	300	1000	1330	220	442	31.6	MT4	165kg	85kg

Low accuracy

(mm)

Code	Parallelism*	Runout accuracy	Center height (H)	Distance between two centers(D)	L	W	H1	Diameter of center (Ød)	Taper of center	Weight	Load
4788-D2	0.010mm	3µm	90	200	490	180	175	20.0	MT2	27kg	25kg
4788-D3	0.010mm	3µm	90	300	590	195	175	20.0	MT2	36kg	25kg
4788-D4	0.012mm	3µm	130	400	730	205	241	28.0	MT3	68kg	60kg
4788-D6	0.015mm	3µm	130	600	930	220	250	28.0	MT3	91kg	60kg
4788-D8	0.015mm	3µm	130	800	1130	220	250	28.0	MT3	99kg	60kg
4788-D10	0.015mm	3µm	130	1000	1330	220	262	28.0	MT3	116kg	60kg

*Parallelism of two centers to the guide surface

TRANSFER STANDS

Application



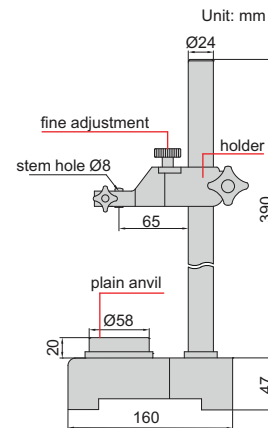
Rigid construction, designed to make comparison height measurement (set zero with gage block then measure height of workpiece) with dial indicators or digital indicators (variation of measuring force is high)



6865-300



6865-300T



- Vertical travel of holder: 335mm
- Fine adjustment range: 2mm
- Supplied with dust cover

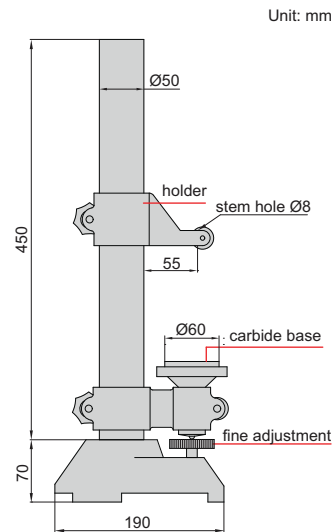
Code	Applicable holding stem	Anvil
6865-300	Ø8mm	steel (hardness HRC60±2), plain, flatness 1.5µm
6865-300T	Ø8mm	ceramic, plain, flatness 1.5µm

HEAVY DUTY DIAL INDICATOR STAND

- Vertical travel of holder: 300mm
- Fine adjustment range: 5mm
- Carbide base
- Supplied with dust cover
- Optional accessory:
holder with stem hole Ø28 (code **6869-D28**)



6869-300



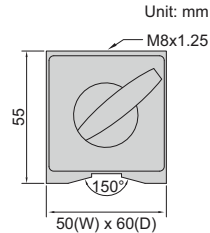
Code	Applicable holding stem	Base
6869-300	Ø8mm	plain, flatness 1µm, carbide

MAGNETIC BASES

Code	Magnetic force
6212-80	80kgf
6212-100	100kgf



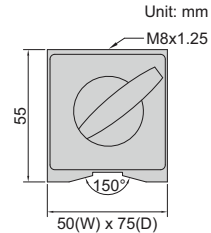
6212-80



6212-80



6212-100



6212-100

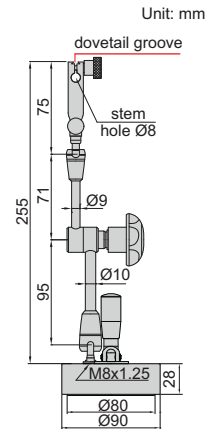
VACUUM STAND

- Suitable for granite surface plates or cast iron surface plates
- For digital/dial indicators and dial test indicators

Code	Diameter of vacuum disc	Vacuum force	Applicable holding stem	Remark
6217-B	Ø80mm	80kgf	Ø8mm	with fine adjustment and dovetail groove



6217-B

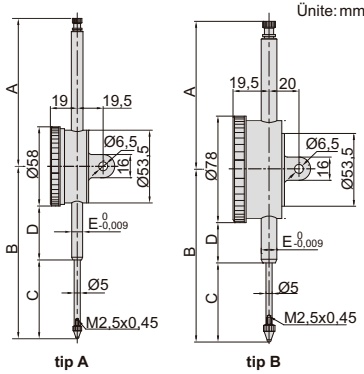


KOMPARATÖR SAATİ (UZUN ÖLÇÜM ARALIKLI)

- Darbeye dayanıklı
- Kıymetli taş yataklı
- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar:
arka kapaklar (sayfa 94-95),
temas uçları (sayfa 92-93)



2309-50



Tip B kapağı



2309-100D için Ø10mm
gövde kelepçesi



(mm)

Kod	Tip	A	B	C	D	E
2309-30F	A	37,5	89,5	40,9	19,5	Ø8
2309-30	A	37,5	89,5	40,9	19,5	Ø8
2309-50	A	108,3	126,2	57,7	39,5	Ø8
2309-50D	B	108,3	126,2	57,7	29,5	Ø8
2309-80	A	138,4	168,4	88	51,3	Ø8
2309-80D	B	138,4	168,4	88	41,3	Ø8
2309-100D	B	167,6	207,8	108	60,8	Ø10

Kod	Ölçüm aralığı	Hassasiyet	Tip	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2309-30F *	30mm	0,01mm	A	35µm	7µm	1mm	0-100	düz kapak
2309-30 *	30mm	0,01mm	A	35µm	7µm	1mm	0-100	kulaklı kapak
2309-50 *	50mm	0,01mm	A	40µm	8µm	1mm	0-100	yedek düz arkalı kulaklı kapak
2309-50D *	50mm	0,01mm	B	40µm	8µm	1mm	0-100	yedek düz arkalı kulaklı kapak
2309-80	80mm	0,01mm	A	50µm	9µm	1mm	0-100	yedek düz arkalı kulaklı kapak
2309-80D	80mm	0,01mm	B	50µm	9µm	1mm	0-100	yedek düz arkalı kulaklı kapak
2309-100D	100mm	0,01mm	B	50µm	9µm	1mm	0-100	yedek düz arkalı kulaklı kapak

Not: 1) 2309-80, 2309-80D ve 2309-100D sadece dikey kullanılır

2) 2309-100D manyetik ayaklar için Ø10mm gövde kelepçesi ile tedarik edilir (kod 6200-60, 6201-60, 6202-80, 6202-100)

3) 2309-30 ve 2309-30F, opsiyonel arkalı kabul etmez (sayfa 94-95)

* Üretici kalibrasyon sertifikası ile tedarik edilir

KOMPARATÖR SAATİ (STANDART MODEL)

KIYMETLİ
TAŞ YATAKLI

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

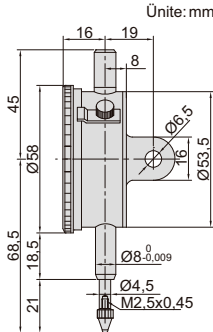


2308-10A

- DIN878 Standardına uygundur
- Kıymetli taş yataklı
- Limit uçları ve çerçeve kelepçesi ile tedarik edilir
- Opsiyonel aksesuar: arka kapaklar (sayfa 94-95), temas uçları (sayfa 92-93)

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2308-3FA *	3mm	0,01mm	12µm	3µm	1mm	0-100	düz kapak
2308-5FA *	5mm	0,01mm	14µm	3µm	1mm	0-100	düz kapak
2308-10FA *	10mm	0,01mm	17µm	3µm	1mm	0-100	düz kapak
2308-3A *	3mm	0,01mm	12µm	3µm	1mm	0-100	kulaklı kapak
2308-5A *	5mm	0,01mm	14µm	3µm	1mm	0-100	kulaklı kapak
2308-10A *	10mm	0,01mm	17µm	3µm	1mm	0-100	kulaklı kapak

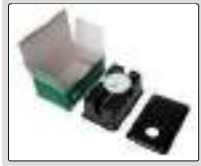
* Üretici kalibrasyon sertifikası ile tedarik edilir



KOMPARATÖR SAATİ (PROMOSYON MODEL)

- DIN878 Standardına uygundur
- Kıymetli taş yataklı
- Limit uçları ve çerçeve kelepçesi ile tedarik edilir
- Karton kutudadır
- Opsiyonel aksesuar:
arka kapaklar (sayfa 94-95),
temas uçları (sayfa 92-93)

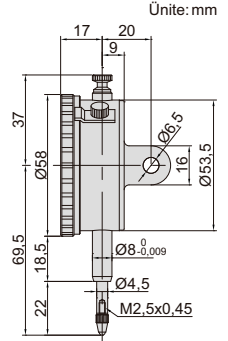
karton kutu



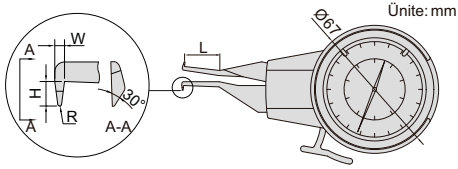
2301-10

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2301-10F *	10mm	0,01mm	17µm	3µm	1mm	0-100	düz kapak
2301-10 *	10mm	0,01mm	17µm	3µm	1mm	0-100	yedek düz arkalı kulaklı kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir



İÇ ÇAP KOMPARATÖRÜ



VIDEO

(mm)

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	L	H	W	R
2222-15	5-15mm	0,01mm	$\pm 0,03$ mm	20	2	1,5	R0,3
2222-25	5-25mm	0,01mm	$\pm 0,03$ mm	35	1,5	1,0	R0,3
2222-301	10-30mm	0,01mm	$\pm 0,03$ mm	55	5,5	2,5	R0,5
2222-401	20-40mm	0,01mm	$\pm 0,03$ mm	80	6,0	3,0	R0,5
2222-501	30-50mm	0,01mm	$\pm 0,03$ mm	80	8,0	3,0	R0,5
2222-60	40-60mm	0,01mm	$\pm 0,03$ mm	80	8,0	3,0	R0,5

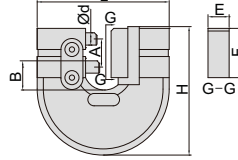


2222-15

- Üst ve alt limitleri ayarlamak için Geçer ve Geçmez masterlar kullanılır
- Taban düzlüğü: 1,5µm
- Ölçüm yüzeylerinin paralellliği
0-32mm aralığı: 3µm
32-89mm aralığı: 4µm
89-300mm aralığı: 5µm



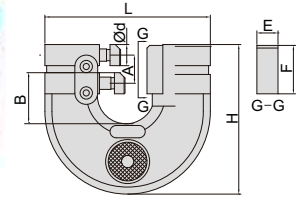
2187-6



0-6mm



2187-19



6µm üzeri

(mm)

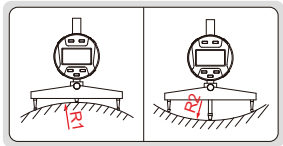
Kod	Ölçüm aralığı	L	A	B	E	F	H	Ød
2187-6	0-6mm	74	15	17,5	12,2	27,2	71,5	7
2187-13	6-13mm	85	15	26	12,2	27,2	79,5	12,3
2187-19	13-19mm	93	15	27	12,2	27,2	83	12,3
2187-25	19-25mm	100	15	33,5	12,2	27,2	89,5	12,3
2187-32	25-32mm	111	18	38,5	15,2	35,2	104	15,3
2187-38	32-38mm	117	18	41,5	15,2	35,2	105	15,3
2187-44	38-44mm	123	18	44,5	15,2	35,2	109	15,3
2187-51	44-51mm	130	18	48	15,2	35,2	117	15,3
2187-57	51-57mm	136	18	45	15,2	35,2	119	15,3
2187-63	57-63mm	143	18	50	15,2	35,2	122	15,3
2187-70	63-70mm	156	20	58	15,2	35,2	132	15,3
2187-76	70-76mm	163	20	60,5	15,2	35,2	137	15,3
2187-82	76-82mm	169	20	64,5	15,2	35,2	140	15,3
2187-89	82-89mm	175	20	66,5	15,2	35,2	146	15,3
2187-95	89-95mm	181	20	69,5	15,2	35,2	149	15,3
2187-101	95-101mm	188	20	70	15,2	35,2	154	15,3
2187-108	101-108mm	198	24	79	15,2	39,2	166	15,3
2187-114	108-114mm	204	24	81	15,2	39,2	172	15,3

(mm)

Kod	Ölçüm aralığı	L	A	B	E	F	H	Ød
2187-120	114-120mm	210	24	86	15,2	39,2	179	15,3
2187-127	120-127mm	217	24	89,5	15,2	39,2	186	15,3
2187-133	127-133mm	223	24	92,5	15,2	39,2	192	15,3
2187-139	133-139mm	229	24	95,5	15,2	39,2	197	15,3
2187-146	139-146mm	235	24	98,5	15,2	39,2	201	15,3
2187-152	146-152mm	242	24	102	15,2	39,2	205	15,3
2187-163	152-163mm	273	21,4	106,7	18,2	39,2	211	18,3
2187-175	163-175mm	273	21,4	106,7	18,2	39,2	211	18,3
2187-188	175-188mm	298,5	21,4	119,7	18,2	39,2	227	18,3
2187-200	188-200mm	298,5	21,4	119,7	18,2	39,2	227	18,3
2187-213	200-213mm	324	21,4	131,7	18,2	39,2	242	18,3
2187-225	213-225mm	324	21,4	131,7	18,2	39,2	242	18,3
2187-238	225-238mm	349,5	21,4	144,7	18,2	39,2	250	18,3
2187-250	238-250mm	349,5	21,4	149	18,2	39,2	250	18,3
2187-263	250-263mm	375,5	21,4	157,7	18,2	39,2	278	18,3
2187-275	263-275mm	375,5	21,4	157,7	18,2	39,2	278	18,3
2187-288	275-288mm	400	21,4	170,7	18,2	39,2	291	18,3
2187-300	288-300mm	400	21,4	170,7	18,2	39,2	291	18,3

DİJİTAL YARIÇAP KOMPARATÖRÜ

DİKKAT: DATA
ÇIKIŞI YOKTUR

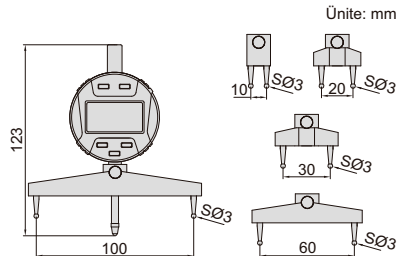


- Çözünürlük: 0,005mm/0,00002"
- Tuşlar: aç/kapa, beklet, mm/inch, s (ağız seç), sıfırla
- İç ve dış kavislerin yarıçap ölçümü
- Ekran, 320° dönebilir
- Farklı kavis boyutları için 5 farklı ayak ile tedarik edilir
- Pil CR2032, otomatik kapanma

2183

Kod	Dış yarıçap ölçüm aralığı (R1)	İç yarıçap ölçüm aralığı (R1)	Doğruluk (mm)
2183	5-910mm/0,2-35,83"	7-910mm/0,3-35,83"	$\pm 0,01R^*$

* R ölçülecek yarıçaptır





sıfırlama blok
mastarı (dahil)



- Adım yüksekliği ve boşluk genişliği ölçülür
- Çözünürlük: 0,01mm/0,0005"
- Tuşlar: aç/kapa, sıfırla, mm/inç
- Otomatik kapanma, dijital göstergenin hareket ettirilmesi ile açılır
- Pil CR2032
- Bilgi Çıkış
- Paslanmaz çelikten yapılmıştır
- Sıfırlama blok mastarı ile tedarik edilir
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)

Kod	Ölçüm aralığı	Doğruluk
2168-12	0-12,7mm/0-0,5"	±0,03mm

ADIM VE BOŞLUK KOMPARATÖRÜ

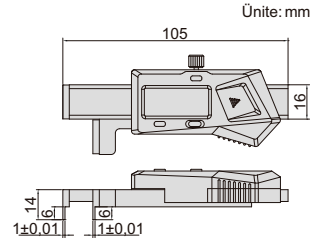
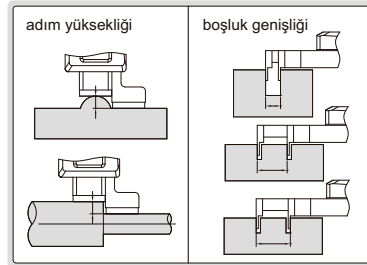


ön

2168-12



arka



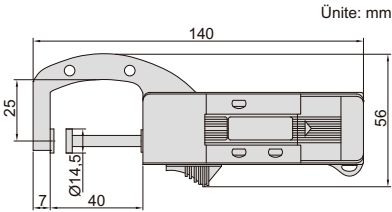
DİJİTAL KALINLIK KOMPARATÖRÜ

DİKKAT: BİLGİ
ÇIKIŞI YOK



2167-25

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk
2167-25	0-25mm/0-1"	0,01mm/0,0005"	±0,03mm



DİJİTAL KALINLIK KOMPARATÖRÜ

BİLGİ
ÇIKIŞI

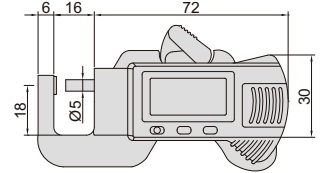
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod 7306-20, 7302-SPC1A/SPC1B,
7305-SPC2)



2166-12

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk
2166-12	0-12mm/0-0,5"	0,01mm/0,0005"	±0,03mm

Ünite: mm

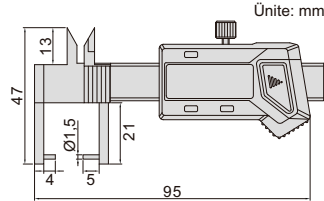
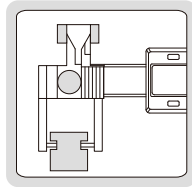


DİKKAT: DATA
ÇIKIŞI YOKTUR

DEĞERLİ TAŞLAR
İÇİN UYGUNDUR



- Tuşlar: aç/kapa, sıfırla, mm/inc
- LR44 Pil
- Paslanmaz çelikten yapılmıştır



2164-25A

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk
2164-25A	0-25mm/0-1"	0,01mm/0,0005"	±0,03mm

DİJİTAL KALINLIK KOMPARATÖRÜ

BİLGİ
ÇIKIŞI



2163-25

- Çözünürlük: 0,01mm/0,0005"
- Doğruluk: $\pm 0,04\text{mm}$
- Kalınlık ve boru duvar kalınlığı ölçümünde kullanılır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-20, 7302-SPC1A/SPC1B, 7305-SPC2)

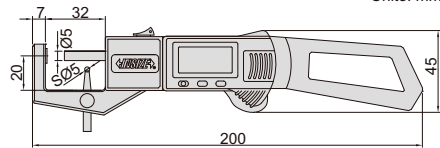


kalınlık ölçümü



duvar kalınlığı ölçümü

Ünite: mm

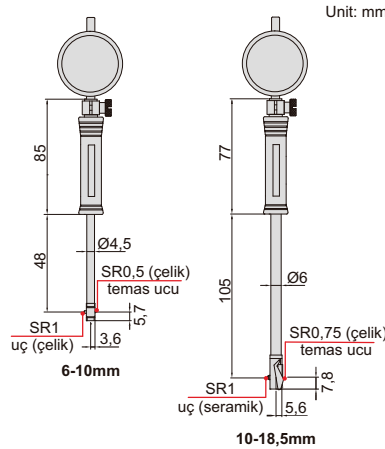
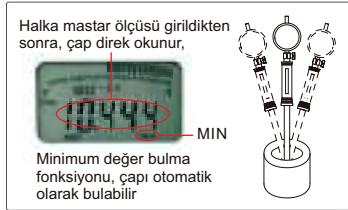
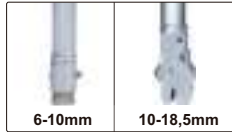


Kod	Kalınlık aralığı	Duvar kalınlığı aralığı
2163-25	0-25mm/0-1"	0-2mm/0,08"

**DİKKAT: 0,001MM KOMPARATÖR
SAATLERİNE UYGUN DEĞİLDİR**

**BİLGİ
ÇIKIŞI**

SİLİNDİR KOMPARATÖR (KÜÇÜK DELİKLER İÇİN)



2852-10



2152-18

- Opsiyonel aksesuar: sıfırlama mastarı (kod 6312)

Komparatör saati ile

Kod	Ölçüm aralığı	Komparatör	Doğruluk	Tekrarlanabilirlik
2852-10	6-10mm	saatli komparatör, aralık 3mm,	$\pm 0,012\text{mm}$	0,003mm
2852-18	10-18,5mm	hassasiyet 0,01mm (kod 2311-3F)	$\pm 0,012\text{mm}$	0,003mm

Dijital komparatör saati ile

Kod	Ölçüm aralığı	Komparatör	Doğruluk	Tekrarlanabilirlik
2152-10	6-10mm	dijital komparatör, aralık 12,7mm/0,5",	$\pm 0,012\text{mm}$	0,003mm
2152-18	10-18,5mm	hassasiyet 0,002mm/0,0001" (kod 2108-10F)	$\pm 0,012\text{mm}$	0,003mm

DİJİTAL İÇ ÇAP KOMPARATÖRÜ

BİLGİ
ÇIKIŞI

- Karbür ölçüm ağızları
- Dijital ve analog okuma
- Gösterge 320° dönebilir
- Tuşlar: Geçer ve Geçmez tolerans göstergesi, veri ön ayar, ölçüm yönü değişimi, maks./min./TIR ölçümü, inç/metrik dönüştürme, mutlak/sayarak artarak ölçüm
- CR2032 pil, otomatik kapanma
- Bilgi çıkış
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-40, 7302-SPC3A, 7305-SPC1A, 7305-C01)



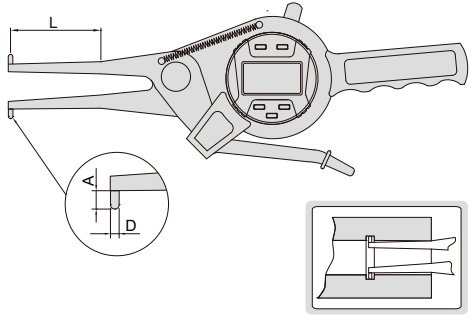
VIDEO



2151-35

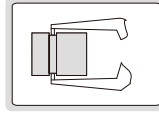
Kod	Ölçüm aralığı	Çözünürlük	Doğruluk	L	A	D
2151-35	15-35mm/0,6-1,4"	0,01mm/0,0005"	±0,04mm	50	3	Ø3
2151-AL35	15-35mm/0,6-1,4"	0,01mm/0,0005"	±0,04mm	200	3	Ø3
2151-55	35-55mm/1,4-2,2"	0,01mm/0,0005"	±0,04mm	80	6	Ø3
2151-AL55	35-55mm/1,4-2,2"	0,01mm/0,0005"	±0,04mm	250	8	Ø3
2151-75	55-75mm/2,2-3"	0,01mm/0,0005"	±0,04mm	90	8	Ø3
2151-AL75	55-75mm/2,2-3"	0,01mm/0,0005"	±0,04mm	250	8	Ø3
2151-95	75-95mm/3-3,8"	0,01mm/0,0005"	±0,04mm	100	8	Ø3
2151-115	95-115mm/3,8-4,6"	0,01mm/0,0005"	±0,04mm	120	10	Ø3,2
2151-135	115-135mm/4,6-5,4"	0,01mm/0,0005"	±0,04mm	120	10	Ø3,2

(mm)



DİJİTAL DIŞ ÇAP KOMPARATÖRÜ

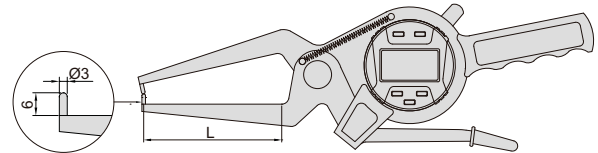
- Karbür ölçüm ağızları
- Dijital ve analog okuma
- Gösterge 320° dönebilir
- Tuşlar: Geçer ve Geçmez tolerans göstergesi, veri ön ayar, ölçüm yönü değişimi, maks./min./TIR ölçümü, inç/metrik dönüştürme mutlak/sayarak artarak ölçüm
- CR2032 pil, otomatik kapanma
- Bilgi çıkış
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-40**, **7302-SPC3A**, **7305-SPC1A**, **7305-C01**)



2132-20

Ünite: mm

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk	L (mm)
2132-20	0-20mm/0-0,8"	0,01mm/0,0005"	±0,04mm	60
2132-40	20-40mm/0,8-1,6"	0,01mm/0,0005"	±0,04mm	60
2132-60	40-60mm/1,6-2,4"	0,01mm/0,0005"	±0,04mm	55
2132-80	60-80mm/2,4-3,2"	0,01mm/0,0005"	±0,04mm	55
2132-100	80-100mm/3,2-4"	0,01mm/0,0005"	±0,04mm	55





GENİŞ HAREKETLİ DİJİTAL KOMPARATÖR

BİLGİ
ÇIKIŞI

spindle lift knob is included



- Tuşlar: aç/kapa, sıfırla, mm/inc
- CR2032 pil, otomatik kapanma
- Bilgi çıkış
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod **7306-40**, **7302-SPC3A**, **7305-SPC1A**, **7305-C01**),
arkalar (sayfa 94-95), bağlantı ucu (sayfa 92-93)

Çözünürlük 0,01mm/0,0005"

Kod	Ölçüm aralığı	Doğruluk	Histerezi	Açıklama
2117-100	100mm/4"	30µm	10µm	kulaklı kapak

Çözünürlük 0,001mm/0,00005"

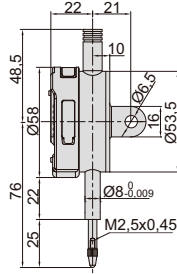
Kod	Ölçüm aralığı	Doğruluk	Histerezi	Açıklama
2117-1001	100mm/4"	9µm	3µm	kulaklı kapak

METRİK DİJİTAL KOMPARATÖR

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

BİLGİ
ÇIKIŞI

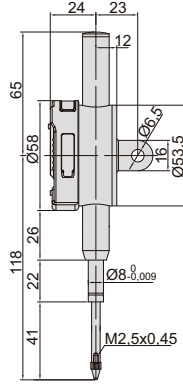
mil kaldırma kolu dahildir



2116-10
2116-101



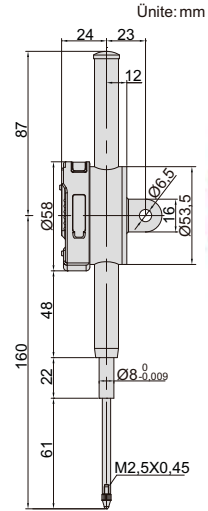
2116-10



2116-25
2116-251



2116-251



2116-50
2116-501



2116-501

- Tuşlar: aç/kapa, ayar, mm/inç, sıfırla
- CR2032 pil, otomatik kapanma
- Bilgi çıkışı
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod **7306-40**, **7302-SPC3A**, **7305-SPC1A**, **7305-C01**),
arkalar (sayfa 94-95), bağlantı ucu (sayfa 92-93)

Çözünürlük 0,001mm

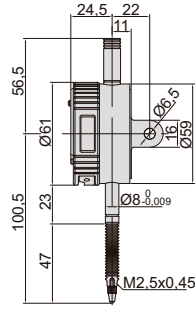
Kod	Ölçüm aralığı	Doğruluk	Histerezi	Açıklama
2116-101F*	12,7mm	5µm	2µm	düz kapak
2116-251F*	25,4mm	5µm	3µm	düz kapak
2116-501F*	50,8mm	6µm	3µm	düz kapak
2116-101*	12,7mm	5µm	2µm	kulaklı kapak
2116-251*	25,4mm	5µm	3µm	kulaklı kapak
2116-501*	50,8mm	6µm	3µm	kulaklı kapak

Çözünürlük 0,01mm

Kod	Ölçüm aralığı	Doğruluk	Histerezi	Açıklama
2116-10F*	12,7mm	20µm	10µm	düz kapak
2116-25F*	25,4mm	20µm	10µm	düz kapak
2116-50F*	50,8mm	30µm	10µm	düz kapak
2116-10*	12,7mm	20µm	10µm	kulaklı kapak
2116-25*	25,4mm	20µm	10µm	kulaklı kapak
2116-50*	50,8mm	30µm	10µm	kulaklı kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir

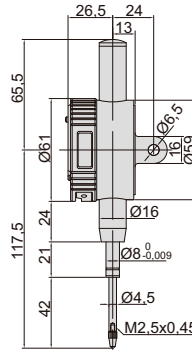
SU GEÇİRMEZ DİJİTAL KOMPARATÖR SAATİ



2115-10
2115-101



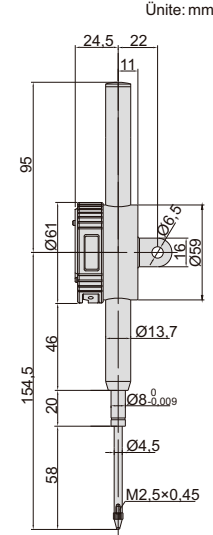
2115-10



2115-25
2115-251



2115-25



2115-50
2115-501



2115-50

Çözünürlük 0,001mm/0,00005"

Kod	Ölçüm aralığı	Toza/suya karşı korumalı	Doğruluk	Histerezi	Açıklama
2115-101 *	12,7mm/0,5"	IP65	5µm	2µm	kulaklı kapak
2115-251 *	25,4mm/1"	IP54	5µm	3µm	kulaklı kapak
2115-501 *	50,8mm/2"	IP54	6µm	3µm	kulaklı kapak
2115-101F *	12,7mm/0,5"	IP65	5µm	2µm	düz kapak
2115-251F *	25,4mm/1"	IP54	5µm	3µm	düz kapak
2115-501F *	50,8mm/2"	IP54	6µm	3µm	düz kapak

Çözünürlük 0,01mm/0,0005"

Kod	Ölçüm aralığı	Toza/suya karşı korumalı	Doğruluk	Histerezi	Açıklama
2115-10 *	12,7mm/0,5"	IP65	20µm	10µm	kulaklı kapak
2115-25 *	25,4mm/1"	IP54	20µm	10µm	kulaklı kapak
2115-50 *	50,8mm/2"	IP54	30µm	10µm	kulaklı kapak
2115-10F *	12,7mm/0,5"	IP65	20µm	10µm	düz kapak
2115-25F *	25,4mm/1"	IP54	20µm	10µm	düz kapak
2115-50F *	50,8mm/2"	IP54	30µm	10µm	düz kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir

mil kaldırma kolu dahildir
(2115-101/101F,
2115-10/10F hariç)



- Toza/suya karşı korumalı
- Tuşlar: aç/kapa, sıfırla, mm/inç
- CR2032 pil, otomatik kapanma
- Bilgi çıkış
- Opsiyonel aksesuar:
bilgi çıkış kablosu (kod 7306-40,
7302-SPC3A, 7305-SPC1A,
7305-C01), arkalar (sayfa 94-95),
bağlantı ucu (sayfa 92-93)

KOMPAKT DİJİTAL KOMPARATÖR

BİLGİ
ÇIKIŞI

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

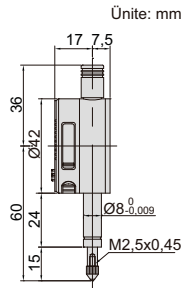
- Tuşlar
in/mm: inc/metrik dönüştürme için kısa basın,
ölçme yönünü değiştirmek için uzun basın
ABS: Mutlak ve sayarak artan ölçüm için kıya
basın ve bilgi ayarı yapmak için uzun basın
0/AÇ: Açmak için kısa basın ve açıkknw
sıfırlamak için kısa basın
- Tekrar başlatma sonrası önayar ve tolerans verileri hafızada kalır
- CR1632 pil, otomatik kapanma
- Bilgi çıkış
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod **7306-40**, **7302-SPC3A**, **7305-SPC1A**, **7305-C01**),
temas uçları (sayfa 92-93)

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk	Histerezi	Açıklama
2114-5F *	5mm/0,2"	0,01mm/0,0005"	20µm	10µm	düz kapak
2114-51F *	5mm/0,2"	0,001mm/0,00005"	5µm	2µm	düz kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir



2114-51F



OTOMATİK KAPANMAYAN DİJİTAL KOMPARATÖR SAATİ

TEK PİL İLE 4000 SAAT
ÇALIŞMA SÜRESİ

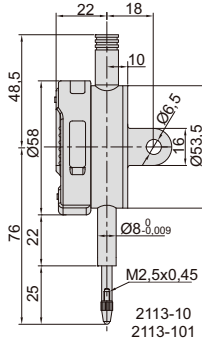
BİLGİ
ÇIKIŞI

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

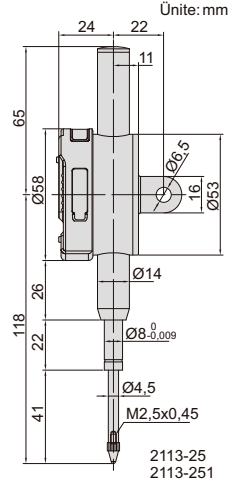
mil kaldırma kolu dahildir



- Otomatik kapanma yoktur, kalıp ve çelik yapıların deformasyonunu uzun süre izleyebilir
- Düşük güç tüketimi
- Tuşlar: aç/kapa, sıfırla, mm/inç
- CR2032 pil
- Bilgi çıkış
- Opsiyonel aksesuar: arkalar (sayfa 94-95), bağlantı ucu (sayfa 92-93), bilgi çıkış kablosu (kod 7305-SPC1A)



2113-10



2113-251

Çözünürlük 0,001mm/0,00005"

Kod	Ölçüm aralığı	Doğruluk	Histerezi	Açıklama
2113-101F *	12,7mm/0,5"	5µm	2µm	düz kapak
2113-251F *	25,4mm/1"	5µm	3µm	düz kapak
2113-101 *	12,7mm/0,5"	5µm	2µm	kulaklı kapak
2113-251 *	25,4mm/1"	5µm	3µm	kulaklı kapak

Çözünürlük 0,01mm/0,0005"

Kod	Ölçüm aralığı	Doğruluk	Histerezi	Açıklama
2113-10F *	12,7mm/0,5"	20µm	10µm	düz kapak
2113-25F *	25,4mm/1"	20µm	10µm	düz kapak
2113-10 *	12,7mm/0,5"	20µm	10µm	kulaklı kapak
2113-25 *	25,4mm/1"	20µm	10µm	kulaklı kapak

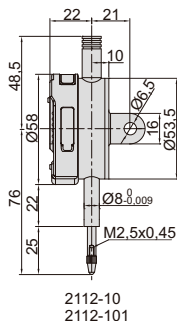
* Üretici kalibrasyon sertifikası ile tedarik edilir

DİJİTAL KOMPARATÖR (STANDART MODEL)

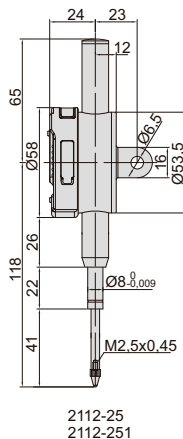
**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

BİLGİ
ÇIKIŞI

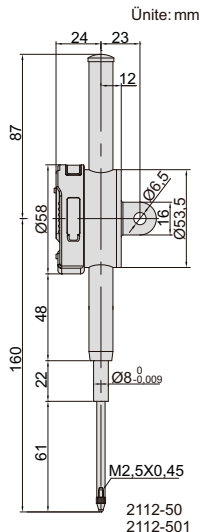
mil kaldırma kolu dahildir



2112-10



2112-251



2112-501

- Tuşlar: aç/kapa, ayar, mm/inç, sıfırla
- CR2032 pil, otomatik kapanma
- Bilgi çıkış
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod **7306-40**, **7302-SPC3A**, **7305-SPC1A**, **7305-C01**),
arkalar (sayfa 94-95), bağlantı ucu (sayfa 92-93)

Cözünürlük 0.001mm/0.00005"

Kod	Ölçüm aralığı	Doğruluk	Histerezi	Açıklama
2112-101F *	12,7mm/0,5"	5µm	2µm	düz kapak
2112-251F *	25,4mm/1"	5µm	3µm	düz kapak
2112-501F *	50,8mm/2"	6µm	3µm	düz kapak
2112-101 *	12,7mm/0,5"	5µm	2µm	kulaklı kapak
2112-251 *	25,4mm/1"	5µm	3µm	kulaklı kapak
2112-501 *	50,8mm/2"	6µm	3µm	kulaklı kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir

Cözünürlük 0.01mm/0.0005"

Kod	Ölçüm aralığı	Doğruluk	Histerezi	Açıklama
2112-10F *	12,7mm/0,5"	20µm	10µm	düz kapak
2112-25F *	25,4mm/1"	20µm	10µm	düz kapak
2112-50F *	50,8mm/2"	30µm	10µm	düz kapak
2112-10*	12,7mm/0,5"	20µm	10µm	kulaklı kapak
2112-25*	25,4mm/1"	20µm	10µm	kulaklı kapak
2112-50*	50,8mm/2"	30µm	10µm	kulaklı kapak

KALDIRAÇLI DİJİTAL KOMPARATÖR

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

BİLGİ
ÇIKIŞI

- Dijital ve analog okuma
- Gösterge 320° dönebilir
- Tuşlar: Geçer ve Geçmez tolerans göstergesi, veri ön ayar, ölçüm yönü değişimi, maks./min./TIR ölçümü, inç/metrik dönüştürme, mutlak/sayarak artarak ölçüm
- Tekrar başlatma sonrası önayar ve tolerans verileri hafızada kalır
- CR2032 pil, otomatik kapanma
- Bilgi çıkış
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-40**, **7302-SPC3A**, **7305-SPC1A**, **7305-C01**), arkalar (sayfa 94-95), bağlantı ucu (sayfa 92-93)

tolerans dışına
çıkınca uyarı gelir

yanıp sönme



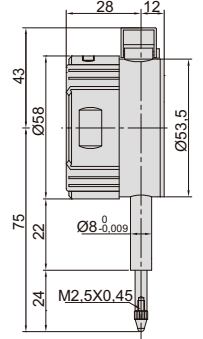
analog uç

analog uç



2109-10

Ünite: mm



Kod	Ölçüm aralığı	Çözünürlük	Doğruluk	Histerezi	Açıklama
2109-10*	10mm/0,4"	0,01mm/0,0005"	20µm	10µm	düz kapak
2109-101*	10mm/0,4"	0,001mm/0,00005"	5µm	2µm	düz kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir

- Silindir için özel üretilmiştir
- Minimum değer bulma fonksiyonu, çapı otomatik olarak bulabilir
- Halka master ölçüsü girildikten sonra, çap direk okunur,
- Dijital ve analog okuma
- Gösterge 320° dönebilir
- Tuşlar: Minimum değer bulma, kalibrasyon, bilgi ayarı, inç/metrik dönüştürme, mutlak/sayarak artarak ölçüm
- Tekrar başlatma sonrası önayar ve tolerans verileri hafızada kalır
- CR2032 pil, otomatik kapanma
- Bilgi çıkışı
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-40**, **7302-SPC3A**, **7305-SPC1A**, **7305-C01**), arkalar (sayfa 94-95), bağlantı ucu (sayfa 92-93)

tolerans dışına
çıkınca uyarı gelir

yanıp sönme



analog uç

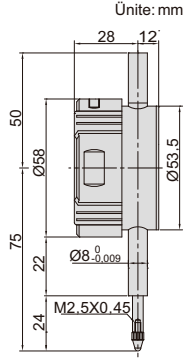
analog uç



DİJİTAL SİLİNDİR KOMPARATÖR



2108-10F



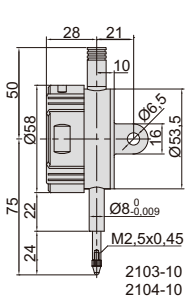
Kod	Ölçüm aralığı	Çözünürlük	Doğruluk	Histerezi	Açıklama
2108-10F *	12,7mm/0,5"	0,002mm/0,0001"	20µm	10µm	düz kapak
2108-101F *	12,7mm/0,5"	0,001mm/0,00005"	5µm	2µm	düz kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir

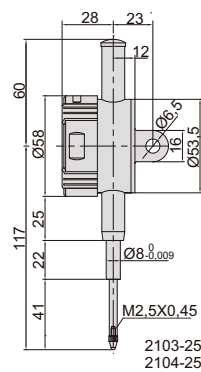
DİJİTAL KOMPARATÖR SAATİ (GELİŞMİŞ MODEL)

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

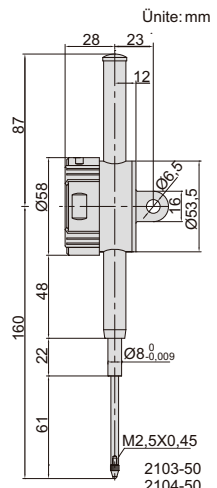
**BİLGİ
ÇIKIŞI**



2103-10



2104-25



2103-50

Çözünürlük 0,001mm/0,00005"

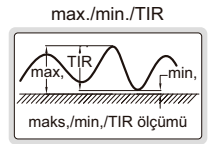
Kod	Ölçüm aralığı	Doğruluk	Histerezi	Açıklama
2103-10F *	12,7mm/0,5"	5µm	2µm	düz kapak
2103-25F *	25,4mm/1"	5µm	3µm	düz kapak
2103-50F *	50,8mm/2"	6µm	3µm	düz kapak
2103-10 *	12,7mm/0,5"	5µm	2µm	kulaklı kapak
2103-25 *	25,4mm/1"	5µm	3µm	kulaklı kapak
2103-50 *	50,8mm/2"	6µm	3µm	kulaklı kapak

Çözünürlük 0,01mm/0,0005"

Kod	Ölçüm aralığı	Doğruluk	Histerezi	Açıklama
2104-10F *	12,7mm/0,5"	20µm	10µm	düz kapak
2104-25F *	25,4mm/1"	20µm	10µm	düz kapak
2104-50F *	50,8mm/2"	30µm	10µm	düz kapak
2104-10 *	12,7mm/0,5"	20µm	10µm	kulaklı kapak
2104-25 *	25,4mm/1"	20µm	10µm	kulaklı kapak
2104-50 *	50,8mm/2"	30µm	10µm	kulaklı kapak

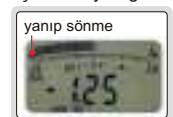
* Üretici kalibrasyon sertifikası ile tedarik edilir

mil kaldırma kolu dahildir



- Dijital ve analog okuma
- Gösterge 320° dönebilir
- Tuşlar: Geçer ve Geçmez tolerans göstergesi, veri ön ayar, ölçüm yönü değişimi, maks./min./TIR ölçümü, inç/metrik dönüştürme, mutlak/sayıarak artarak ölçüm
- Tekrar başlatma sonrası önayar ve tolerans verileri hafızada kalır
- CR2032 pil, otomatik kapanma
- Bilgi çıkışı
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-40, 7302-SPC3A, 7305-SPC1A, 7305-C01), arkalar (sayfa 94-95), bağlantı ucu (sayfa 92-93)

tolerans dışına çıkınca uyarı gelir



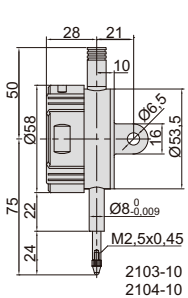
analog uç



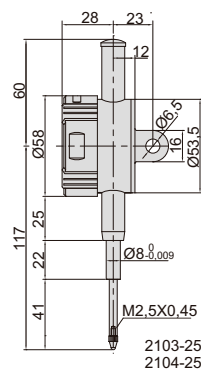
DİJİTAL KOMPARATÖR SAATİ (GELİŞMİŞ MODEL)

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

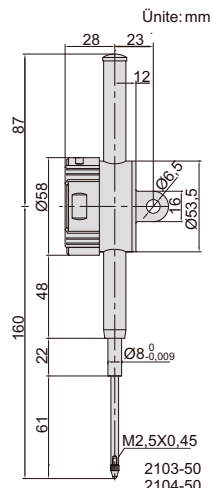
BİLGİ
ÇIKIŞI



2103-10



2104-25



2103-50

Çözünürlük 0,001mm/0,00005"

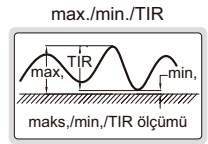
Kod	Ölçüm aralığı	Doğruluk	Histerezi	Açıklama
2103-10F *	12,7mm/0,5"	5µm	2µm	düz kapak
2103-25F *	25,4mm/1"	5µm	3µm	düz kapak
2103-50F *	50,8mm/2"	6µm	3µm	düz kapak
2103-10 *	12,7mm/0,5"	5µm	2µm	kulaklı kapak
2103-25 *	25,4mm/1"	5µm	3µm	kulaklı kapak
2103-50 *	50,8mm/2"	6µm	3µm	kulaklı kapak

Çözünürlük 0,01mm/0,0005"

Kod	Ölçüm aralığı	Doğruluk	Histerezi	Açıklama
2104-10F *	12,7mm/0,5"	20µm	10µm	düz kapak
2104-25F *	25,4mm/1"	20µm	10µm	düz kapak
2104-50F *	50,8mm/2"	30µm	10µm	düz kapak
2104-10 *	12,7mm/0,5"	20µm	10µm	kulaklı kapak
2104-25 *	25,4mm/1"	20µm	10µm	kulaklı kapak
2104-50 *	50,8mm/2"	30µm	10µm	kulaklı kapak

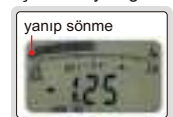
* Üretici kalibrasyon sertifikası ile tedarik edilir

mil kaldırma kolu dahildir



- Dijital ve analog okuma
- Gösterge 320° dönebilir
- Tuşlar: Geçer ve Geçmez tolerans göstergesi, veri ön ayar, ölçüm yönü değişimi, maks./min./TIR ölçümü, inç/metrik dönüştürme, mutlak/sayıarak artarak ölçüm
- Tekrar başlatma sonrası önayar ve tolerans verileri hafızada kalır
- CR2032 pil, otomatik kapanma
- Bilgi çıkışı
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-40, 7302-SPC3A, 7305-SPC1A, 7305-C01), arkalar (sayfa 94-95), bağlantı ucu (sayfa 92-93)

tolerans dışına çıkınca uyarı gelir



analog uç



DİJİTAL KALINLIK KOMPARATÖRÜ

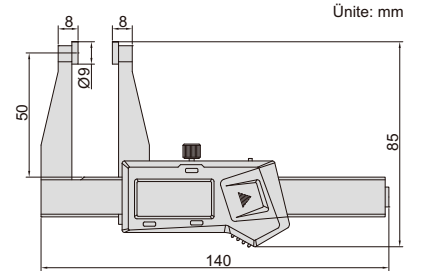
BİLGİ
ÇIKIŞI

- Tuşlar: aç/kapa, sıfırla, mm/inc
- Otomatik kapatma, açmak için dijital ünite hareket ettirilir
- CR2032 PİL
- Bilgi çıkışı
- Paslanmaz çelikten yapılmıştır
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod **7306-20**, **7302-SPC5A/SPC5B**, **7305-SPC2A**, **7305-A01/A02**)

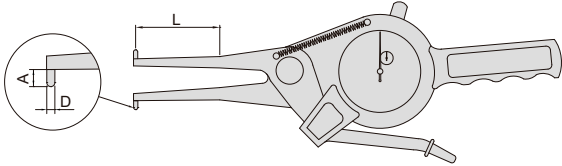


1163-50A

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk
1163-50A	0-50mm/0-2"	0,01mm/0,0005"	±0,03mm



İÇ ÇAP KOMPARATÖRÜ



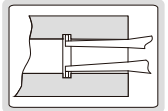
(mm)

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	L	A	D
2321-35	15-35mm	0,01mm	$\pm 0,04$ mm	50	3	Ø3
2321-AL35	15-35mm	0,01mm	$\pm 0,04$ mm	200	3	Ø3
2321-55	35-55mm	0,01mm	$\pm 0,04$ mm	80	6	Ø3
2321-AL55	35-55mm	0,01mm	$\pm 0,04$ mm	250	8	Ø3
2321-75	55-75mm	0,01mm	$\pm 0,04$ mm	90	8	Ø3
2321-AL75	55-75mm	0,01mm	$\pm 0,04$ mm	250	8	Ø3
2321-95	75-95mm	0,01mm	$\pm 0,04$ mm	100	8	Ø3
2321-115	95-115mm	0,01mm	$\pm 0,04$ mm	120	10	Ø3,2
2321-135	115-135mm	0,01mm	$\pm 0,04$ mm	120	10	Ø3,2



2321-35

- Karbür ölçüm ağızları

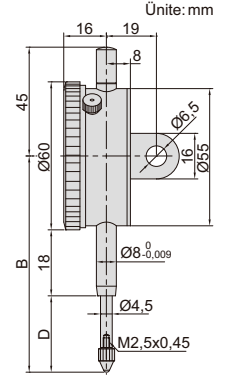


KOMPARATÖR SAATİ (HASSASIYET 0,01mm)

- Limit uçları ve çerçeve kelepçesi ile tedarik edilir
- Opsiyonel aksesuar: arka kapaklar (sayfa 94-95), temas uçları (sayfa 92-93)



2318-30



(mm)

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezisi	Aralık	Saat okuma	Açıklama	B	D
2318-10F	10mm	0,1mm	40µm	20µm	10mm	0-10	düz kapak	70	20
2318-20F	20mm	0,1mm	50µm	20µm	10mm	0-10	düz kapak	85	35
2318-25F	25mm	0,1mm	60µm	20µm	10mm	0-10	düz kapak	85	35
2318-30F	30mm	0,1mm	60µm	20µm	10mm	0-10	düz kapak	90	40
2318-10	10mm	0,1mm	40µm	20µm	10mm	0-10	kulaklı kapak	70	20
2318-20	20mm	0,1mm	50µm	20µm	10mm	0-10	kulaklı kapak	85	35
2318-25	25mm	0,1mm	60µm	20µm	10mm	0-10	kulaklı kapak	85	35
2318-30	30mm	0,1mm	60µm	20µm	10mm	0-10	kulaklı kapak	90	40

TEK TURLU KOMPARATÖR SAATİ

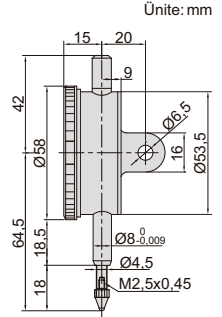
- DIN878 Standardına uygundur
- Yanlış sayma sebebiyle olan okuma hatalarını ortadan kaldırır
- Darbeye dayanıklı
- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar: arka kapaklar (sayfa 94-95), temas uçları (sayfa 92-93)



2316-05

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma	Açıklama
2316-05F *	0,5mm	0,01mm	9μm	3μm	25-0-25	düz kapak
2316-1F *	1mm	0,01mm	9μm	3μm	50-0-50	düz kapak
2316-05 *	0,5mm	0,01mm	9μm	3μm	25-0-25	kulaklı kapak
2316-1 *	1mm	0,01mm	9μm	3μm	50-0-50	kulaklı kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir



DARBEYE DAYANIKLI KOMPARATÖR SAATİ

DARBEYE
DAYANIKLI

KIYMETLİ
TAŞ YATAKLI

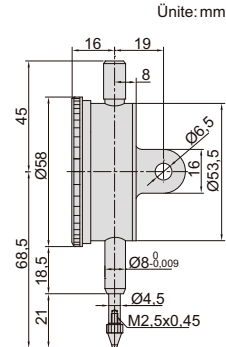
**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI



2314-10A

- DIN878 Standardına uygundur
- Darbeye dayanıklı
- Kıymetli taş yataklı
- Limit uçları ve çerçeve kelepçesi ile tedarik edilir
- Opsiyonel aksesuar: arka kapaklar (sayfa 94-95), temas uçları (sayfa 92-93)

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2314-3FA *	3mm	0,01mm	12µm	3µm	1mm	0-100	düz kapak
2314-5FA *	5mm	0,01mm	14µm	3µm	1mm	0-100	düz kapak
2314-10FA *	10mm	0,01mm	17µm	3µm	1mm	0-100	düz kapak
2314-3A *	3mm	0,01mm	12µm	3µm	1mm	0-100	kulaklı kapak
2314-5A *	5mm	0,01mm	14µm	3µm	1mm	0-100	kulaklı kapak
2314-10A *	10mm	0,01mm	17µm	3µm	1mm	0-100	kulaklı kapak



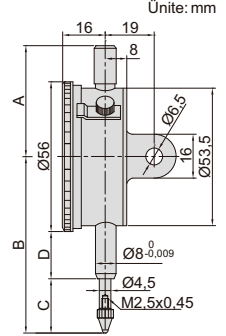
* Üretici kalibrasyon sertifikası ile tedarik edilir

HASSASİYETLİ KOMPARATÖR SAATI

- Hassasiyet: 0,001 mm
- Kıymetli taş yataklı
- Limit uçları ve çerçeve kelepçesi ile tedarik edilir
- Opsiyonel aksesuar: arka kapaklar (sayfa 94-95), temas uçları (sayfa 92-93)



2313-1A



(mm)

Kod	Ölçüm aralığı	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama	A	B	C	D
2313-1FA*	1mm	5µm	2µm	0,2mm	0-100-0	düz kapak	45	62,5	19,5	15
2313-2FA*	2mm	8µm	2,5µm	0,2mm	0-100-0	düz kapak	45	62,5	19,5	15
2313-1A*	1mm	5µm	2µm	0,2mm	0-100-0	lug back	45	62,5	19,5	15
2313-2A*	2mm	8µm	2,5µm	0,2mm	0-100-0	lug back	45	62,5	19,5	15

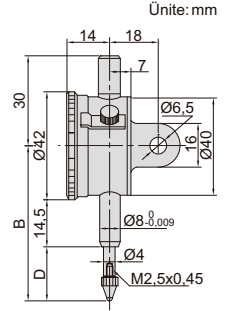
* Üretici kalibrasyon sertifikası ile tedarik edilir

KOMPAKT KOMPARATÖR SAATİ



2311-5

- DIN878 Standardına uygundur
- Kıymetli taş yataklı
- Limit uçları ve çerçeve kelepçesi ile tedarik edilir
- Opsiyonel aksesuar: arka kapaklar (sayfa 94-95), temas uçları (sayfa 92-93)



(mm)

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama	B	D
2311-3F *	3mm	0,01mm	12µm	3µm	0,5mm	0-50	düz kapak	46	10,5
2311-5F *	5mm	0,01mm	14µm	3µm	0,5mm	0-50	düz kapak	48	12,5
2311-3 *	3mm	0,01mm	12µm	3µm	0,5mm	0-50	lug back	46	10,5
2311-5 *	5mm	0,01mm	14µm	3µm	0,5mm	0-50	lug back	48	12,5

* Üretici kalibrasyon sertifikası ile tedarik edilir

KOMPARATÖR SAATİ (UZUN ÖLÇÜM ARALIKLI)



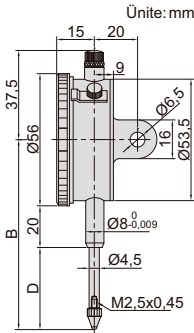
2310-30A

- Limit uçları ve çerçeve kelepçesi ile tedarik edilir
- Opsiyonel aksesuar: arka kapaklar (sayfa 94-95), temas uçları (sayfa 92-93)

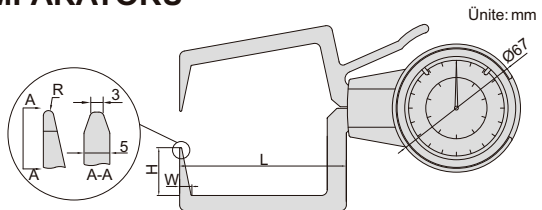
**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama	B	D
2310-20FA*	20mm	0,01mm	25µm	5µm	1mm	0-100	düz kapak	83	35
2310-30FA*	30mm	0,01mm	35µm	7µm	1mm	0-100	düz kapak	88	40
2310-20A*	20mm	0,01mm	25µm	5µm	1mm	0-100	kulaklı kapak	83	35
2310-30A*	30mm	0,01mm	35µm	7µm	1mm	0-100	kulaklı kapak	88	40

* Üretici kalibrasyon sertifikası ile tedarik edilir



DIŞ ÇAP KOMPARATÖRÜ

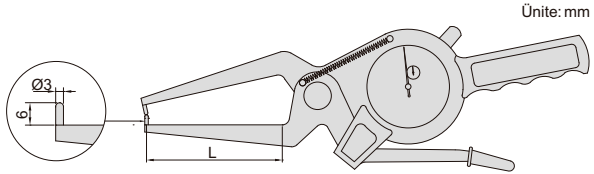


(mm)							
Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	L	H	W	R
2333-201	0-20mm	0,01mm	$\pm 0,03$ mm	80	25	6,5	R0,5
2333-301	10-30mm	0,01mm	$\pm 0,03$ mm	80	25	6,5	R0,5
2333-401	20-40mm	0,01mm	$\pm 0,03$ mm	80	25	6,5	R0,5
2333-501	30-50mm	0,01mm	$\pm 0,03$ mm	80	25	6,5	R0,5
2333-601	40-60mm	0,01mm	$\pm 0,03$ mm	80	25	6,5	R0,5



2333-201

DIŞ ÇAP KOMPARATÖRÜ



■ Karbür ölçüm ağızları

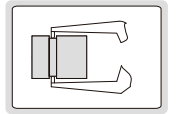
Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	L (mm)
2332-20	0-20mm	0,01mm	$\pm 0,04$ mm	60
2332-40	20-40mm	0,01mm	$\pm 0,04$ mm	60
2332-60	40-60mm	0,01mm	$\pm 0,04$ mm	55
2332-80	60-80mm	0,01mm	$\pm 0,04$ mm	55
2332-100	80-100mm	0,01mm	$\pm 0,04$ mm	55



2332-20



VIDEO



ÇİFT EKSPANLI KOMPARATÖR SAATİ

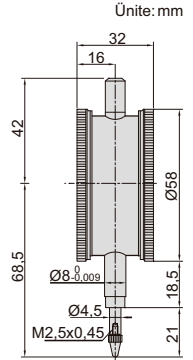
- DIN878 Standardına uygundur
- Her iki taraftan okunabilir
- Kıymetli taş yataklı
- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar:
bağlantı uçları (sayfa 92-93)



2328-10

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma
2328-10*	10mm	0,01mm	17µm	3µm	1mm	0-100

* Üretici kalibrasyon sertifikası ile tedarik edilir



SU GEÇİRMEZ KOMPARATÖR SAATLERİ

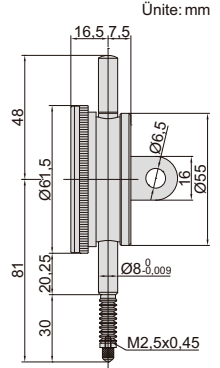
- DIN878 Standardına uygundur
- IP54 toza/suya dayanıklı
- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar:
arka kapaklar (sayfa 94-95),
temas uçları (sayfa 92-93)



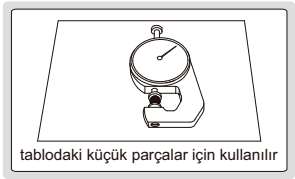
2324-10A

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2324-10FA*	10mm	0,01mm	17µm	3µm	1mm	0-100	düz kapak
2324-10A*	10mm	0,01mm	17µm	3µm	1mm	0-100	kulaklı kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir



KALINLIK KOMPARATÖRÜ

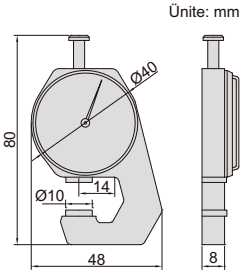


Kod	Ölçüm aralığı	Hassasiyet	Doğruluk
2361-10	0-10mm	0,1mm	$\pm 0,05\text{mm}$



2361-10

DEĞERLİ TAŞLAR
İÇİN UYGUNDUR



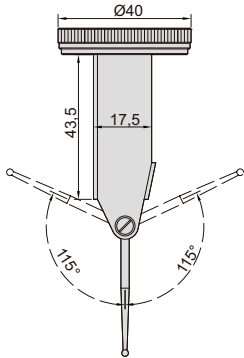
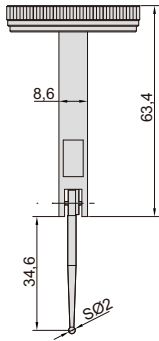
UZUN PROBLU SALGI SAATİ (YATAY EKRAN)

INSIZE PLUS
ALMAN MALI



2899-05

- DIN2270 Standardına uygundur
- Seramik çerçevesi
- Manyetik olmayan karbür uç
- Çift yönlü ölçüm
- Bir kelepçe ile tedarik edilir: Ø8mm çap
- Opsiyonel aksesuar: prob (sayfa 99)



Ünite: mm

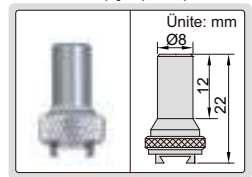
**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

**MANYETİK OLMAYAN
KARBÜR UÇ**

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma
2899-05*	0,5mm	0,01mm	13µm	3µm	0-25-0

* Üretici kalibrasyon sertifikası ile tedarik edilir

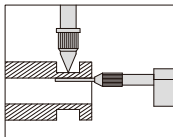
kelepçe (dahil)



DİJİTAL BORU KALINLIĞI KOMPARATÖRÜ



oluğun duvar kalınlığı ölçülür

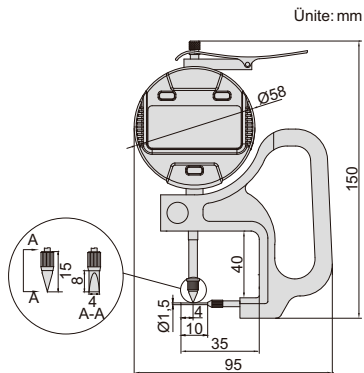


- Tuşlar: aç/kapa, sıfırla, mm/inç
- CR2032 pil, otomatik kapanma
- Bilgi çıkış
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod **7306-40**, **7302-SPC3A**, **7305-SPC1A**, **7305-C01**)

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk
2873-10	0-10mm/0-0,4"	0,01mm/0,0005"	±0,02mm



2873-10



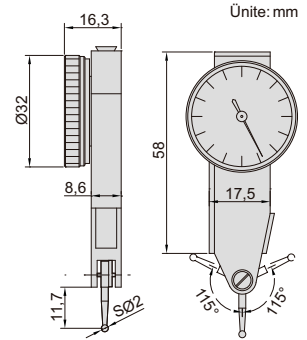
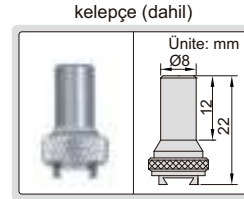
- DIN2270 Standardına uygundur
- Seramik çerçeveseli
- Manyetik olmayan karbür uç
- Çift yönlü ölçüm
- Bir kelepçe ile tedarik edilir: Ø8mm çap
- Opsiyonel aksesuar: prob (sayfa 99)



2898-08

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma
2898-08*	0,8mm	0,01mm	13µm	3µm	0-40-0

* Üretici kalibrasyon sertifikası ile tedarik edilir

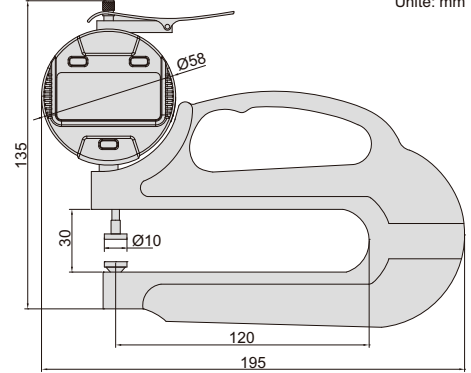


DİJİTAL KALINLIK KOMPARATÖRÜ

BİLGİ
ÇIKIŞI



Ünite: mm



- Seramik mil ucu ve yatağı
- Tuşlar: aç/kapa, sıfırla, mm/inç
- CR2032 pil, otomatik kapanma
- Bilgi çıkış
- Opsiyonel aksesuar:
bilgi çıkış kablosu (kod **7306-40**,
7302-SPC3A, **7305-SPC1A**, **7305-C01**)

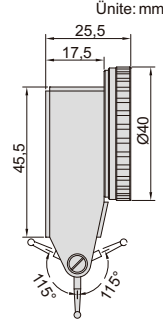
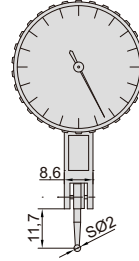
2872-10

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk
2872-10	0-10mm/0-0,4"	0,01mm/0,0005"	±0,02mm

MANYETİK OLMAYAN
KARBÜR UÇ

- DIN2270 Standardına uygundur
- Seramik çerçeveli
- Manyetik olmayan karbür uç
- Çift yönlü ölçüm
- Tek kelepçe ile tedarik edilir: çap Ø8mm
- Opsiyonel aksesuar: prob (sayfa 99)

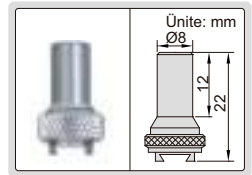
2897-02



HASSAS SALGI SAATİ

INSIZE PLUS
ALMAN MALI

kelepçe (dahil)



Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma
2897-02 *	0,2mm	0,001mm	4µm	2µm	0-100-0

* Üretici kalibrasyon sertifikası ile tedarik edilir

UZUN PROBLU SALGI SAATİ

INSIZE PLUS
ALMAN MALI

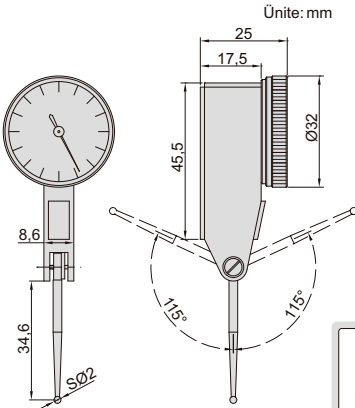


2896-05

- DIN2270 Standardına uygundur
- Seramik çerçeveli
- Manyetik olmayan karbür uç
- Çift yönlü ölçüm
- Bir kelepçe ile tedarik edilir: Ø8mm çap
- Opsiyonel aksesuar: prob (sayfa 99)

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma
2896-05*	0,5mm	0,01mm	13µm	3µm	0-25-0

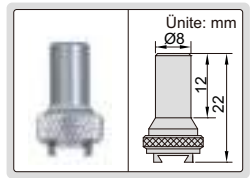
* Üretici kalibrasyon sertifikası ile tedarik edilir



**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

**MANYETİK OLMAYAN
KARBÜR UÇ**

kelepçe (dahil)

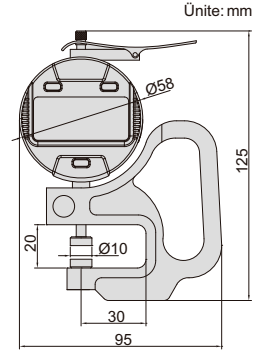


DİJİTAL KALINLIK KOMPARATÖRÜ

- Seramik mil ucu ve yatağı
- Tuşlar: aç/kapa, sıfırla, mm/inç
- CR2032 pil, otomatik kapanma
- Bilgi çıkış
- Opsiyonel aksesuar: bilgi çıkış kablosu
(kod **7306-40**, **7302-SPC3A**, **7305-SPC1A**, **7305-C01**)



2871-101



SALGI SAATİ

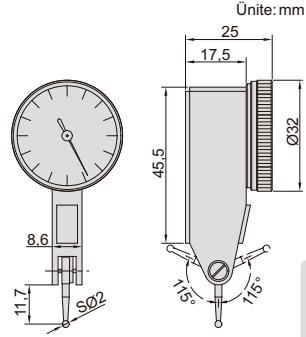
←INSIZE→PLUS

ALMAN MALI



2895-08

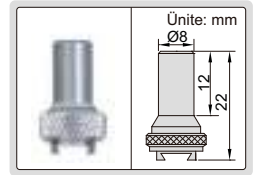
- DIN2270 Standardına uygundur
- Seramik çerçeveli
- Manyetik olmayan karbür uç
- Çift yönlü ölçüm
- Bir kelepçe ile tedarik edilir: çap Ø8mm
- Opsiyonel aksesuar: prob (sayfa 99)



**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

**MANYETİK OLMAYAN
KARBÜR UÇ**

kelepçe (dahil)



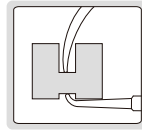
Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma
2895-08*	0,8mm	0,01mm	13µm	3µm	0-40-0

* Üretici kalibrasyon sertifikası ile tedarik edilir

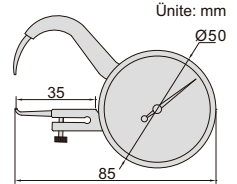
SİVRİ UÇLU KALINLIK KOMPARATÖRÜ

- Sivri uçlar, küçük kanal ve aralık için uygundur

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk
2866-10	0-10mm	0,05mm	$\pm 0,1\text{mm}$

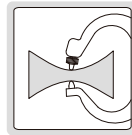


2866-10

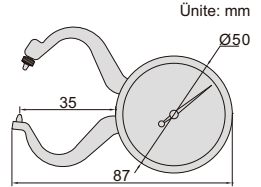


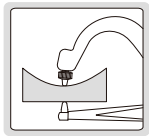
KALINLIK KOMPARATÖRÜ

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk
2863-10	0-10mm	0,05mm	$\pm 0,1\text{mm}$



2863-10



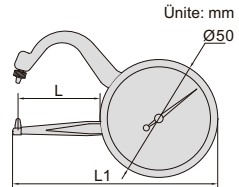


(mm)					
Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	L	L1
2862-101	0-10mm	0,05mm	$\pm 0,1$ mm	35	85
2862-102	0-10mm	0,05mm	$\pm 0,1$ mm	60	110

KALINLIK KOMPARATÖRÜ



2862-101

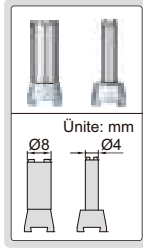


SALGI SAATİ (EĞİMLİ)

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

- DIN2270 Standardına uygundur
- Kıymetli taş yataklı
- Karbür temas ucu
- İki yönlü ölçüm
- Anti manyetik gövde
- İki adet kelepçe ile tedarik edilir:
çap Ø4mm ve Ø8mm
- Opsiyonel aksesuar: prob (sayfa 99)

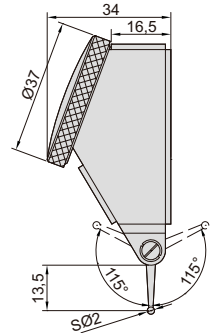
kelepçe (dahil)



2399-08

KIYMETLİ
TAŞ YATAKLI

Ünite: mm

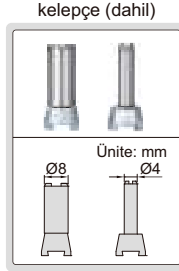


Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma
2399-08*	0,8mm	0,01mm	13µm	3µm	0-40-0

* Üretici kalibrasyon sertifikası ile tedarik edilir

SALGI SAATİ (YATAY EKTRAN)

- DIN2270 Standardına uygundur
- Kıymetli taş yatak
- Karbür temas ucu
- Çift yönlü ölçüm
- Manyetik olmayan gövde
- İki kelepçe ile tedarik edilir:
çap Ø8mm ve Ø4 mm
- Opsiyonel aksesuar: prob (sayfa 99)

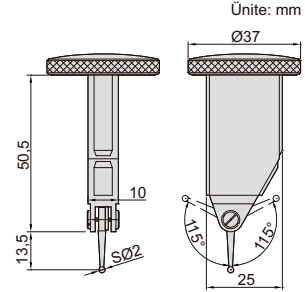


Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma
2398-08*	0,8mm	0,01mm	13µm	3µm	0-40-0

* Üretici kalibrasyon sertifikası ile tedarik edilir

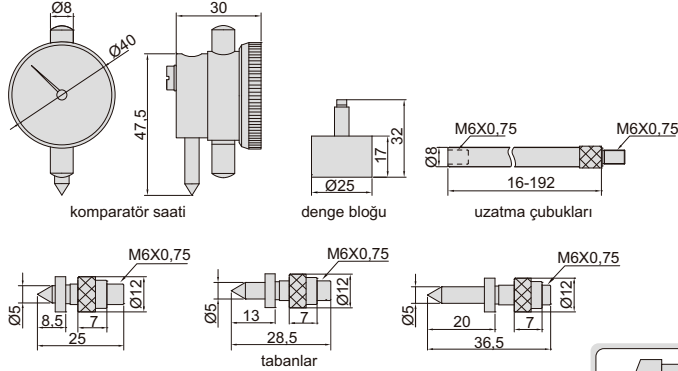


2398-08



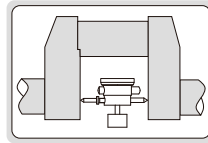
KRANK KOMPARATÖRÜ

Ünite: mm



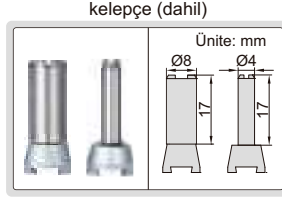
2841-500

- Krank mili sapması ölçülür
- Komparatör saatinin yukarı bakmasını önlemek için, denge bloğu salgı saati arkasına monte edilir



Kod	Ölçüm aralığı	Komparatör saati	Hassasiyet	Uzatma çubukları	Doğruluk
2841-300	60-300mm	3mm	0,01mm	16mm, 32mm, 64mm, 128mm	$\pm 0,016$ mm
2841-500	60-500mm	3mm	0,01mm	16mm, 32mm, 64mm, 96mm, 128mm, 192mm	$\pm 0,016$ mm

- DIN2270 Standardına uygundur
- Kıymetli taş yataklı
- Karbür temas ucu
- Ayarlanabilir iki yönlü ölçüm
- Anti manyetik gövde
- İki adet kelepçe ile tedarik edilir:
çap Ø4mm ve Ø8mm
- Opsiyonel aksesuar: prob (sayfa 99)



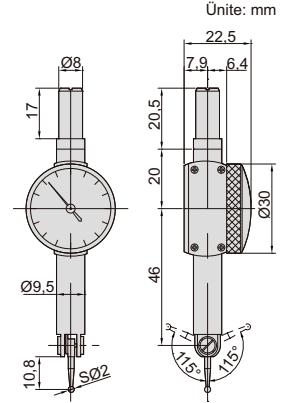
Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma
2391-08 *	0,8mm	0,01mm	13µm	3µm	0-40-0

* Üretici kalibrasyon sertifikası ile tedarik edilir

SALGI SAATİ (YUVARLAK GÖVDE)



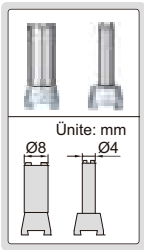
2391-08



SALGI SAATİ (BÜYÜK ÖLÇÜM ARALIKLI)

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

kelepçe (dahil)

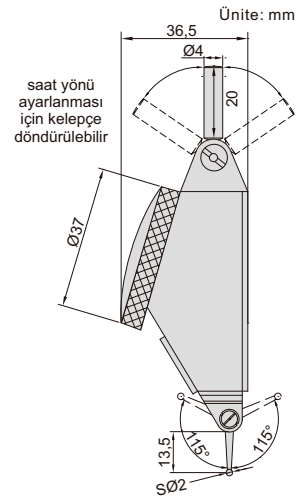


- Saat Okuma: 0-40-0
- Kıymetli taş yataklı
- Karbür temas ucu
- İki yönlü ölçüm
- Anti manyetik gövde
- İki adet kelepçe ile tedarik edilir: çap Ø4mm ve Ø8mm
- Opsiyonel aksesuar: prob (sayfa 99)



2386-16A

KIYMETLİ
TAŞ YATAKLI



Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi
2386-16A*	1,6mm	0,01mm	25µm	8µm

* Üretici kalibrasyon sertifikası ile tedarik edilir

HASSASIYETLİ KOMPARATÖR SAATİ

INSIZE PLUS
ALMAN MALI

- Darbeye dayanıklı
- Kıymetli taş yataklı
- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar:
arka kapaklar (sayfa 94-95),
temas uçları (sayfa 92-93)



2830-1

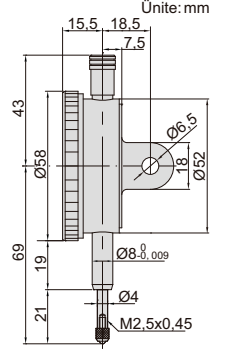
DARBEE
DAYANIKLI

KIYMETLİ
TAŞ YATAKLI

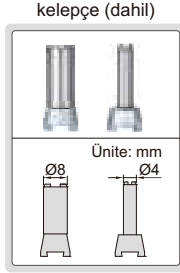
**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2830-1 *	1mm	0,001mm	5µm	2µm	0,2mm	0-100-0	kulaklı kapak
2830-1F *	1mm	0,001mm	5µm	2µm	0,2mm	0-100-0	düz kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir



- DIN2270 Standardına uygundur
- Seramik çerçevesi
- Kıymetli taş yatak
- Karbür temas ucu
- Çift yönlü ölçüm
- Manyetik olmayan gövde
- İki kelepçe ile tedarik edilir:
çap Ø8mm ve Ø4 mm
- Opsiyonel aksesuar: prob (sayfa 99)

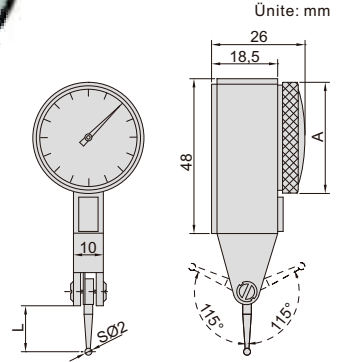


2380-08

(mm)

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma	A	L
2380-08 *	0,8mm	0,01mm	13µm	3µm	0-40-0	Ø30	13,5
2381-08 *	0,8mm	0,01mm	13µm	3µm	0-40-0	Ø37	13,5
2380-02 *	0,2mm	0,002mm	6µm	2µm	0-100-0	Ø30	12,5
2381-02 *	0,2mm	0,002mm	6µm	2µm	0-100-0	Ø37	12,5

* Üretici kalibrasyon sertifikası ile tedarik edilir



TERS OKUMALI KOMPARATÖR SAATİ

KIYMETLİ
TAŞ YATAKLI

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

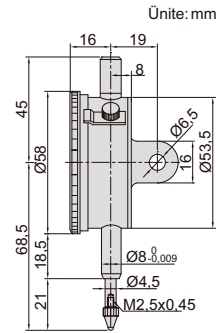
- DIN878 Standardına uygundur
- Derinlik ve adım ölçümleri içindir
- Kıymetli taş yataklı
- Limit uçları ve çerçeve kelepçesi ile tedarik edilir
- Opsiyonel aksesuar: arka kapaklar (sayfa 94-95), temas uçları (sayfa 92-93)



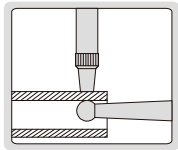
2801-10

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2801-10F*	10mm	0,01mm	17µm	3µm	1mm	100-0	düz kapak
2801-10*	10mm	0,01mm	17µm	3µm	1mm	100-0	kulaklı kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir



BORU KALINLIK KOMPARATÖRÜ

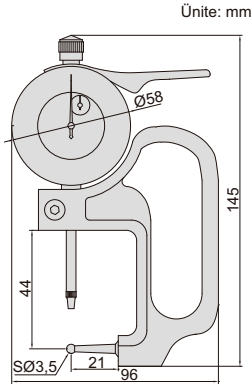


■ Boru duvar kalınlığı ölçölür

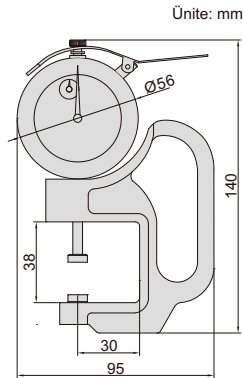
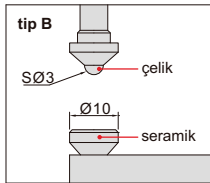
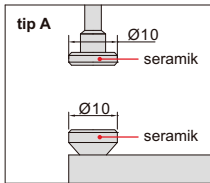
Kod	Ölçüm aralığı	Hassasiyet	Doğruluk
2367-10A	0-10mm	0,01mm	±0,02mm



2367-10A



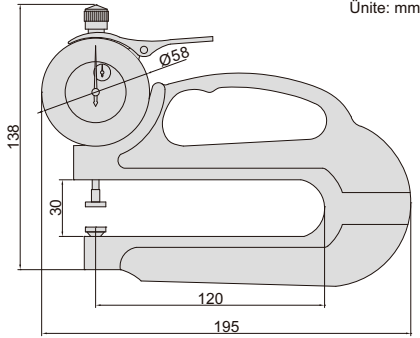
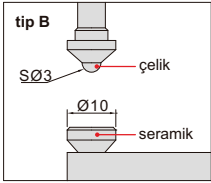
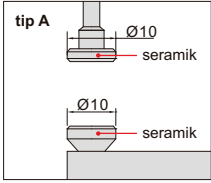
KALINLIK KOMPARATÖRÜ



2366-30

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Tip
2366-30	0-30mm	0,01mm	$\pm 0,035$ mm	A
2366-30B	0-30mm	0,01mm	$\pm 0,035$ mm	B

KALINLIK KOMPARATÖRÜ

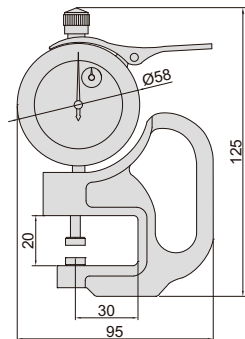
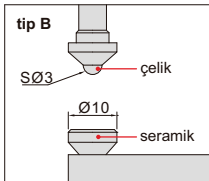
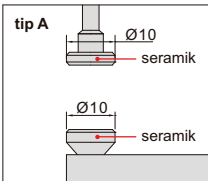


2365-10

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Tip
2365-10	0-10mm	0,01mm	±0,02mm	A
2365-20	0-20mm	0,01mm	±0,03mm	A
2365-10B	0-10mm	0,01mm	±0,02mm	B
2365-20B	0-20mm	0,01mm	±0,03mm	B

KALINLIK KOMPARATÖRÜ

Ünite: mm



2364-10



2364-1

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Tip	ØD
2364-10	0-10mm	0,01mm	±0,02mm	A	58mm
2364-10B	0-10mm	0,01mm	±0,02mm	B	58mm
2364-1	0-1mm	0,001mm	±0,005mm	A	56mm

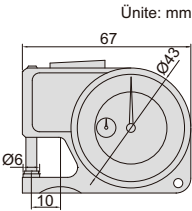
KALINLIK KOMPARATÖRÜ

- Paslanmaz çelik mil ucu ve tabanı

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk
2363-10	0-10mm	0,01mm	±0,03mm



2363-10



SALGI ÖLÇME CİHAZI

YÜKSEK DAYANIKLILIK VE
UZUN SÜRELİ KULLANMA



4725-45

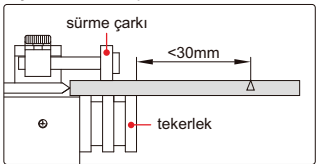


4725-60



4725-80

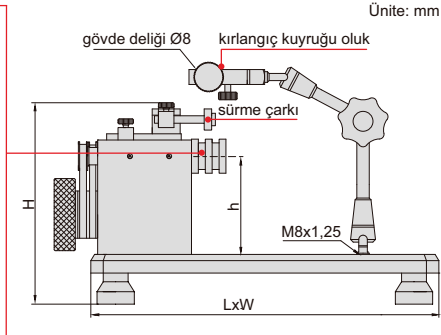
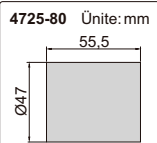
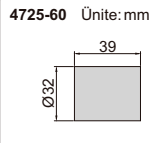
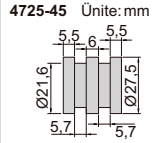
ölçüm noktası ve ayna arası mesafe <30mm



- Bilya uçları; yüksek dayanıklılık ve uzun süreli kullanıma
- Doğruluk 2µm
- Opsiyonel aksesuar: salgi saati



tekerlek



Kod	Çap aralığı	Merkezi yükseklik (H)	LxHxW	Ağırlık
4725-45	3-45mm	80mm	280x130x170mm	6kg
4725-60	5-60mm	90mm	350x160x190mm	15,6kg
4725-80	8-80mm	130mm	400x200x250mm	25kg

SALGI ÖLÇME CİHAZI

YÜKSEK DAYANIKLILIK VE
UZUN SÜRELİ KULLANMA



4725-45

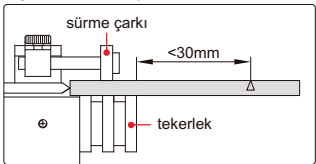


4725-60



4725-80

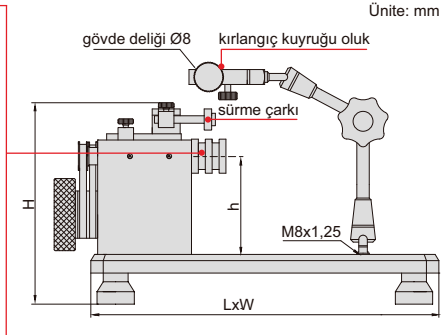
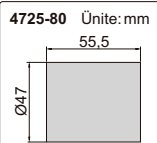
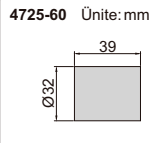
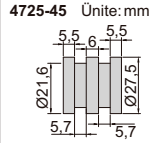
ölçüm noktası ve ayna arası mesafe <30mm



- Bilya uçları; yüksek dayanıklılık ve uzun süreli kullanma
- Doğruluk 2µm
- Opsiyonel aksesuar: salgi saati



tekerlek



Kod	Çap aralığı	Merkezi yükseklik (H)	LxHxW	Ağırlık
4725-45	3-45mm	80mm	280x130x170mm	6kg
4725-60	5-60mm	90mm	350x160x190mm	15,6kg
4725-80	8-80mm	130mm	400x200x250mm	25kg

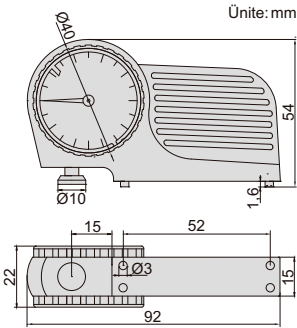
YANAK KOMPARATÖRÜ



ön

arka

2874-02



- Limit ucu ile tedarik edilir
- Her iki taraftan okunur

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk
2874-02	0-2mm	0,05mm	±0,05mm

BLOK MASTARI

ISO 3650 Standartına uygun doğruluk

Nominal uzunluk (mm)	Sınıf 0		Sınıf 1		Sınıf 2	
	Uzunluğun limit sapması	Uzunluktaki değişiklik toleransı	Uzunluğun limit sapması	Uzunluktaki değişiklik toleransı	Uzunluğun limit sapması	Uzunluktaki değişiklik toleransı
0,5-10 arası	±0,12µm	0,10µm	±0,20µm	0,16µm	±0,45µm	0,30µm
10-25 arası	±0,14µm	0,10µm	±0,30µm	0,16µm	±0,60µm	0,30µm
25-50 arası	±0,20µm	0,10µm	±0,40µm	0,18µm	±0,80µm	0,30µm
50-75 arası	±0,25µm	0,12µm	±0,50µm	0,18µm	±1,00µm	0,35µm
75-100 arası	±0,30µm	0,12µm	±0,60µm	0,20µm	±1,20µm	0,35µm
100-150 arası	±0,40µm	0,14µm	±0,80µm	0,20µm	±1,60µm	0,40µm
150-200 arası	±0,50µm	0,16µm	±1,00µm	0,25µm	±2,00µm	0,40µm
200-250 arası	±0,60µm	0,16µm	±1,20µm	0,25µm	±2,40µm	0,45µm
250-300 arası	±0,70µm	0,18µm	±1,40µm	0,25µm	±2,80µm	0,50µm
300-400 arası	±0,90µm	0,20µm	±1,80µm	0,30µm	±3,60µm	0,50µm
400-500 arası	±1,10µm	0,25µm	±2,20µm	0,35µm	±4,40µm	0,60µm
500-600 arası	±1,30µm	0,25µm	±2,60µm	0,40µm	±5,00µm	0,70µm
600-700 arası	±1,50µm	0,30µm	±3,00µm	0,45µm	±6,00µm	0,70µm
700-800 arası	±1,70µm	0,30µm	±3,40µm	0,50µm	±6,50µm	0,80µm
800-900 arası	±1,90µm	0,35µm	±3,80µm	0,50µm	±7,50µm	0,90µm
900-1000 arası	±2,00µm	0,40µm	±4,20µm	0,60µm	±8,00µm	1,00µm

Sınıf ve uygulama

Sınıf	Uygulama
0	Yetkili görevli tarafından kalibrasyon laboratuvarlarında temel standartlar olarak, yüksek doğruluk ölçüm araçlarını ayarlamak, 1 ve 2, sınıf blok masterların çapını ölçmek için kullanılır
1	Çalıştaylarda, ölçüm araçlarını ayarlamak ve ürünleri kontrol etmek için kullanılır Çalıştaylarda
2	Ölçüm araçlarını ayarlamak ve ürünleri kontrol etmek için kullanılır

Denetleme sertifikası

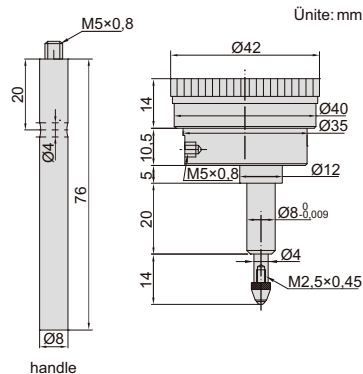




- Tutacak ile tedarik edilir
- Limit uçları ile tedarik edilir
- opsiyonel aksesuar: bağlantı uçları (sayfa 92-93)



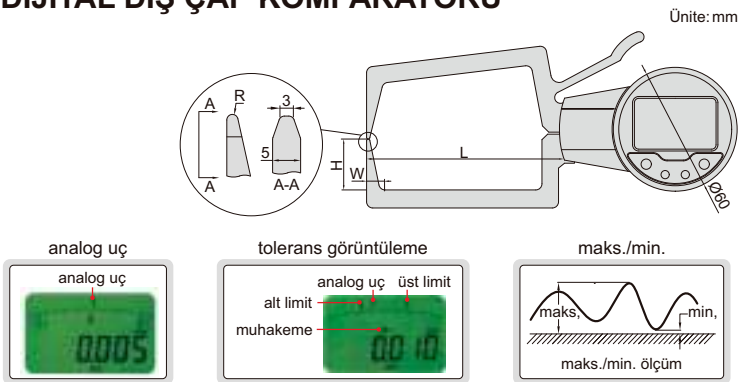
2357-5



Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma
2357-5*	5mm	0,01mm	15µm	5µm	1mm	0-100

* Üretici kalibrasyon sertifikası ile tedarik edilir

DİJİTAL DIŞ ÇAP KOMPARATÖRÜ



2131-21

(mm)

Kod	Ölçüm aralığı	Doğruluk	Tekrarlılık	L	H	W	R
2131-21	0-20mm/0-0,8"	±0,03mm	0,01mm	80	25	6,5	R0,5
2131-31	10-30mm/0,4-1,2"	±0,03mm	0,01mm	80	25	6,5	R0,5
2131-41	20-40mm/0,8-1,6"	±0,03mm	0,01mm	80	25	6,5	R0,5
2131-51	30-50mm/1,2-2,0"	±0,03mm	0,01mm	80	25	6,5	R0,5
2131-61	40-60mm/1,6-2,4"	±0,03mm	0,01mm	80	25	6,5	R0,5

- Çözünürlük: 0,005mm/0,0002"
- Dijital ve analog okuma
- Ekran 170° dönebilir
- Tuşlar: tolerans geçer ve geçmez göstergesi, veri önayar, maks./min. ölçümü, veri saklama, inç/metrik çevrimi, mutlak/sayarak artan ölçüm
- CR2032 Lityum Pil, otomatik kapatma
- Bilgi çıkışı

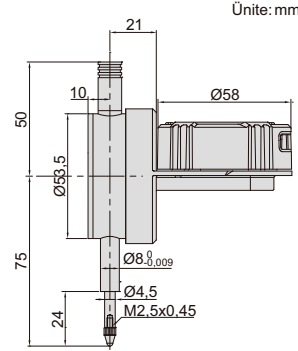
DİJİTAL KOMPARATÖR (YATAY EKRAN)

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

BİLGİ
ÇIKIŞI



2118-10



Ünite: mm

tolerans dışına
çıkınca uyarı gelir

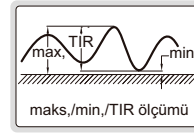
yanıp sönme



mil kaldırma kolu dahildir



max./min./TIR



analog uç

analog uç



gösterge 320° dönebilir



gösterge yönü değiştirilebilir



İlk yön

bu yönde
bilgi çıkışı
engellenmiştir

bu yönde
pil yuvası
engellenmiştir

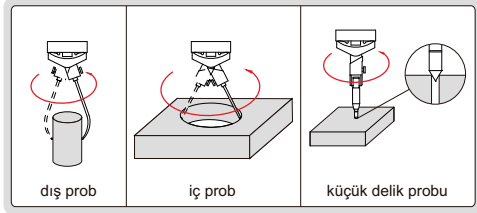
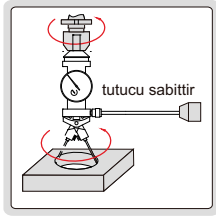
Not: yukarıdaki yönü değiştirmek için
gösterge arkasındaki 4 vidanın ilk
olarak çıkartılması gerekir,

- Gösterge 320° dönebilir ve gösterge yönü değiştirilebilir
- Dijital ve analog okuma
- Tuşlar: Geçer ve Geçmez tolerans göstergesi, veri ön ayar, ölçüm yönü değişimi, maks./min./TIR ölçümü, inç/metrik dönüştürme, mutlak/sayarak artarak ölçüm
- Tekrar başlatma sonrası önayar ve tolerans verileri hafızada kalır
- CR2032 pil, otomatik kapanma
- Bilgi çıkışı
- Opsiyonel aksesuar: bilgi çıkış kablosu (kod 7306-40, 7302-SPC3A, 7305-SPC1A, 7305-C01), arkalar (sayfa 94-95), bağlantı ucu (sayfa 92-93)

Kod	Ölçüm aralığı	Çözünürlük	Doğruluk	Histerezi	Açıklama
2118-10 *	12,7mm/0,5"	0,01mm/0,0005"	20µm	10µm	düz kapak
2118-101 *	12,7mm/0,5"	0,001mm/0,00005"	5µm	2µm	düz kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir

MERKEZLEME KOMPARATÖRÜ



- Delme ve frezeleme kurulumlarında hızlı ve doğru merkezleme sağlar

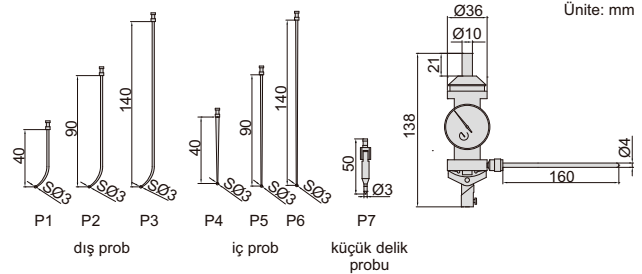
Kod

2385-3

Temas	Ölçme çapı	Doğruluk
P1	Ø0-60mm	0,015mm
P2	Ø0-160mm	0,02mm
P3	Ø0-250mm	0,03mm
P4	Ø3,2-80mm	0,015mm
P5	Ø3,2-180mm	0,02mm
P6	Ø3,2-280mm	0,03mm
P7	Ø0-2,8mm	0,015mm



2385-3

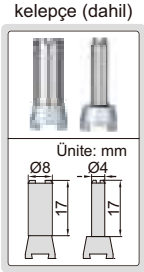


UZUN PROBLU SALGI SAATİ

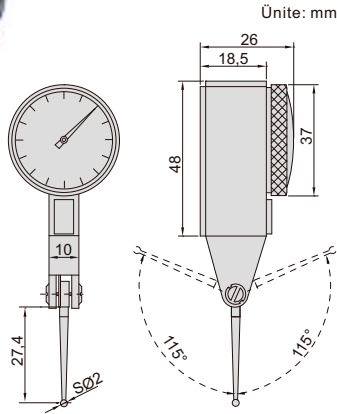
**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

KIYMETLİ
TAŞ YATAKLI

- DIN2270 Standardına uygundur
- Kıymetli taş yataklı
- Karbür temas ucu
- Çift yönlü ölçüm
- Manyetik olmayan gövde
- İki kelepçe ile tedarik edilir:
Ø8mm ve Ø4mm çap
- Opsiyonel aksesuar:
prob (sayfa 99)



2383-08A



Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma
2383-08A*	0,8mm	0,01mm	13µm	3µm	0-40-0

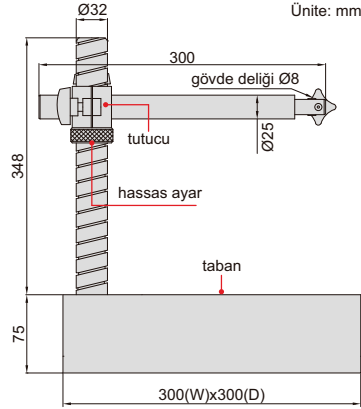
* Üretici kalibrasyon sertifikası ile tedarik edilir

GRANİT SALGI SAATİ AYAĞI

kılıf (dahil)



- Tutucunun dikey ilerlemesi: 250mm
- Hassas ayar aralığı: toplam hareket
- Kılıf ile tedarik edilir

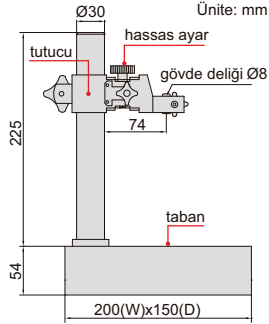


6867-250

Kod	Uygulanabilir tutma sapı	Taban
6867-250	Ø8mm	düzlük 2,8µm

GRANİT SALGI SAATİ AYAĞI

- Tutucunun dikey ilerlemesi: 150mm
- Hassas ayar aralığı: 2mm
- Kılıf ile tedark edilir



kılıf (dahil)



6866-150

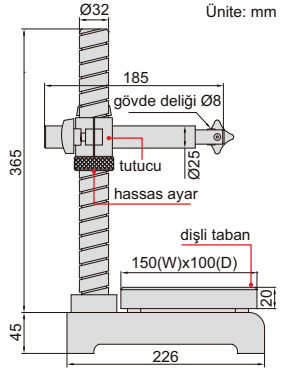
Kod	Uygulanabilir tutma sapı	Taban
6866-150	$\varnothing 8$ mm	düzlük 2,5 μ m

SALGI SAATİ AYAĞI

- Tutucunun dikey ilerlemesi: 250mm
- Hassas ayar aralığı: toplam hareket
- Kılıf ile tedarik edilir



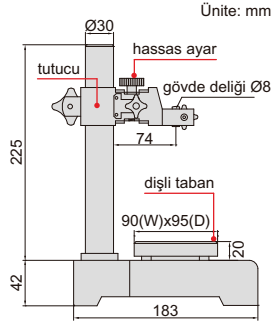
6864-250



Kod	Uygulanabilir tutma sapı	Taban
6864-250	Ø8mm	dişli; düzlük 1,5µm; sertlik HRC60±2

SALGI SAATİ AYAĞI

- Tutucunun dikey ilerlemesi: 150mm
- Hassas ayar aralığı: 2mm
- Kılıf ile tedarik edilir



kılıf (dahil)



6863-150

Kod	Uygulanabilir tutma sapı	Taban
6863-150	Ø8mm	dişli; düzlük 1,5µm; sertlik HRC60±2

SALGI SAATİ AYAĞI

kılıf (dahil)



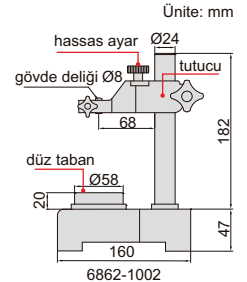
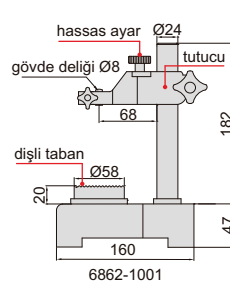
- Tutucunun dikey ilerlemesi: 100mm
- Hassas ayar aralığı: 2 mm
- Kılıf ile tedarik edilir



6862-1001



6862-1002



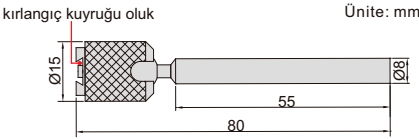
SALGI SAATİ UNİVERSAL TUTUCU

- Salgı saatleri iş parçasına göre istenilen konuma getirilir

Kod
6297-1



6297-1



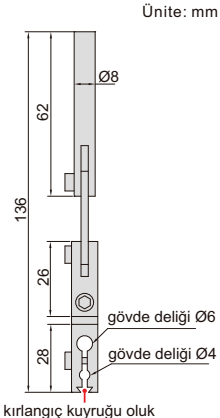
SALGI SAATİ TUTUCU



6296-1

■ Ayan anahtarı ile tedarik edilir

Kod
6296-1



KOMPARATÖR SAATİ(UZUN HAREKETLİ)

INSIZE PLUS
ALMAN MALI

- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar:
arka kapaklar (sayfa 94-95),
temas uçları (sayfa 92-93)

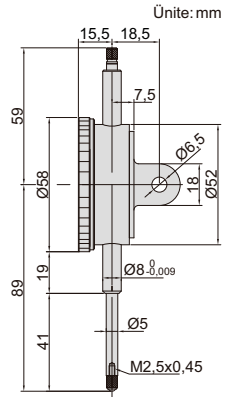


2889-30

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2889-30 *	30mm	0,01mm	25µm	5µm	1mm	0-100	kulaklı kapak
2889-30F *	30mm	0,01mm	25µm	5µm	1mm	0-100	düz kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI



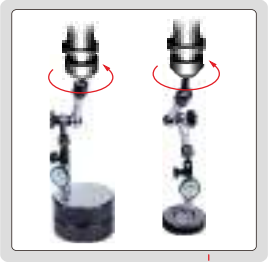
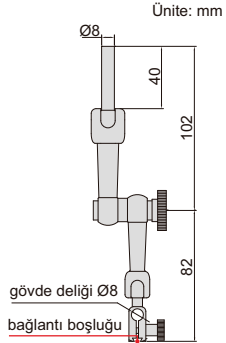
SALGI SAATİ MERKEZLEME TUTUCUSU

- Kesici takımlardaki silindir veya delikler merkezlenir
- Komparatör salgi saati için kullanılır

Kod
6295-1A



6295-1A



KOMPAKT KOMPARATÖR SAATİ

INSIZE PLUS
ALMAN MALI

- DIN878 Standardına uygundur
- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar: arka kapaklar (sayfa 94-95), temas uçları (sayfa 92-93)



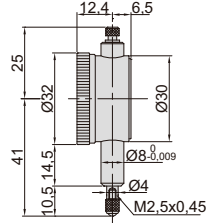
2886-3F

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Aralık	Saat okuma	Açıklama
2886-3F*	3mm	0,01mm	12µm	3µm	0,5mm	0-50	düz kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

Ünite: mm



SALGI SAATİ TUTUCULARI



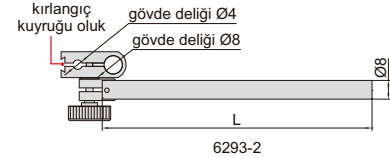
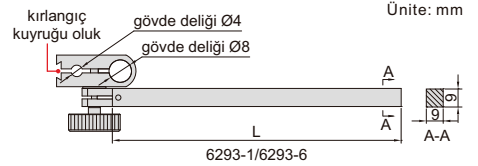
Kod	Gövde bölümü	Gövde uzunluğu (L)
6293-1	9x9mm	100mm
6293-6	9x9mm	50mm
6293-2	Ø8mm	115mm



6293-1



6293-2



SALGI SAATİ MERKEZLEME TUTUCUSU

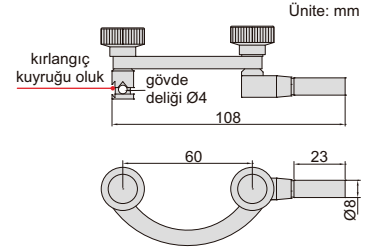
- Tezgah üzerindeki silindir veya delikler merkezlenir

Kod

6291-1



6291-1



SALGI SAATİ YEDEK UÇLARI

(mm)

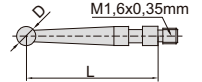
Kod	Komparatör saati için	Temas uç materyali	L	D
6284-1	2380-08, 2398-08 2381-08, 2399-08	çelik	13,5	SØ1
6284-3		karbür	13,5	SØ2
6284-4		yakut	13,5	SØ2
6284-8		karbür	13,5	SØ3
6284-21	2380-02 2381-02	çelik	12,5	SØ1
6284-22		karbür	12,5	SØ2
6284-24		yakut	12,5	SØ2
6284-23		karbür	12,5	SØ3
6284-44	2880-02	karbür	11,7	SØ0,4
6284-41	2880-02R	karbür	11,7	SØ1
6284-42	2895-08	karbür	11,7	SØ2
6284-45	2897-02	yakut	11,7	SØ2
6284-43	2898-08	karbür	11,7	SØ3
6284-71	2391-08	karbür	10,8	SØ2

(mm)

Kod	Komparatör saati için	Temas uç materyali	L	D
6284-51	2896-05 2899-05	karbür	34,6	SØ1
6284-52		karbür	34,6	SØ2
6284-55		yakut	34,6	SØ2
6284-53		karbür	34,6	SØ3
6284-61	2386-16A 2480-16	çelik	13,5	SØ1
6284-62		karbür	13,5	SØ2
6284-63		yakut	13,5	SØ2
6284-64		karbür	13,5	SØ3
6284-81	2383-08A	çelik	27,4	SØ1
6284-82		karbür	27,4	SØ2
6284-83		yakut	27,4	SØ2
6284-84		karbür	27,4	SØ3



6284-3



TEK TURLU KOMPARATÖR SAATI

INSIZE PLUS
ALMAN MALI

DARBEYE
DAYANIKLI

**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

kaldıraç (opsiyonel)

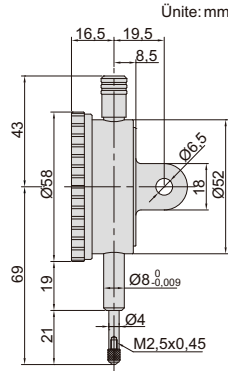


2885-008

- Yanlış sayma sebebiyle olan okuma hatalarını ortadan kaldırır
- Darbeye dayanıklı
- Kıymetli taş yataklı
- Serbest hareket: 4,5 mm
- Limit uçları ile tedarik edilir
- Opsiyonel aksesuar: arka kapaklar (sayfa 94-95), temas uçları (sayfa 92-93), kaldıraç (kod 6289-150)

Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma	Açıklama
2885-008 *	0,08mm	0,001mm	3µm	1,5µm	40-0-40	kulaklı kapak
2885-008F *	0,08mm	0,001mm	3µm	1,5µm	40-0-40	düz kapak

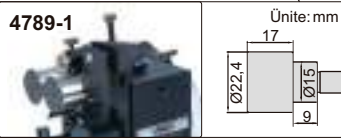
* Üretici kalibrasyon sertifikası ile tedarik edilir



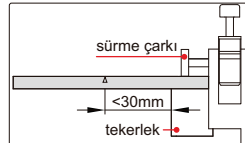


- Doğruluk 2µm
- Opsiyonel aksesuar: salgı saati, mini manyetik ayak (kod 6224-40)

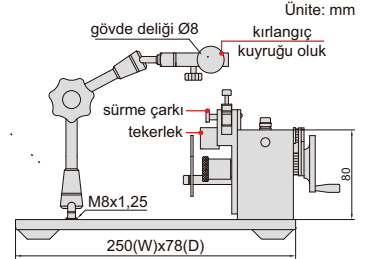
Kod	Uygulanabilir çap
4789-1	Ø3,5mm-25mm
4789-2	Ø1mm-25mm
4789-3	Ø1mm-25mm



ölçüm noktası ve ayna arası mesafe <30mm



SALGI ÖLÇME CİHAZI

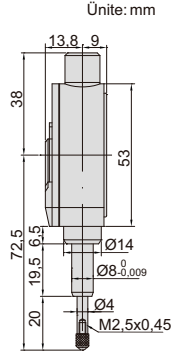


**KALİBRASYON
SERTİFİKASI**
NIST ONAYLI

KIYMETLİ
TAŞ YATAKLI

DARBEYE
DAYANIKLI

- DIN879-1 Standardına uygundur
- Darbeye dayanıklı
- Kıymetli taş yataklı
- Hareket: 3mm
- Saat kılıfı
- Limit uçları ile tedarik edilir
- İlk ölçme kuvveti 1,2N
- Opsiyonel aksesuar:
kaldıraç (kod **6289-150**)



2881-01

KOMPARATÖR SAATİ
INSIZE PLUS
ALMAN MALI



kaldıraç (opsiyonel)

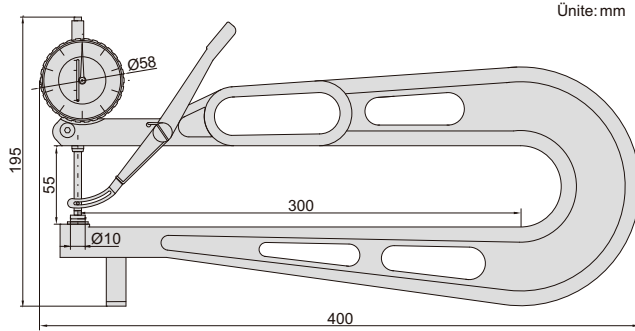


Kod	Ölçüm aralığı	Hassasiyet	Doğruluk	Histerezi	Saat okuma	Açıklama
2881-01*	0,1mm	0,001mm	1,2µm	0,5µm	50-0-50	düz kapak

* Üretici kalibrasyon sertifikası ile tedarik edilir

KALINLIK KOMPARATÖRÜ

INSIZE PLUS
ALMAN MALI



2875-30

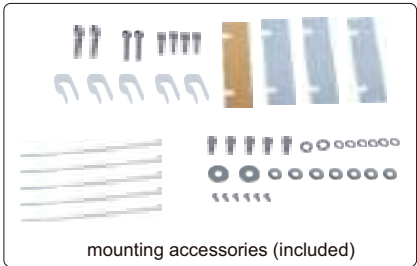
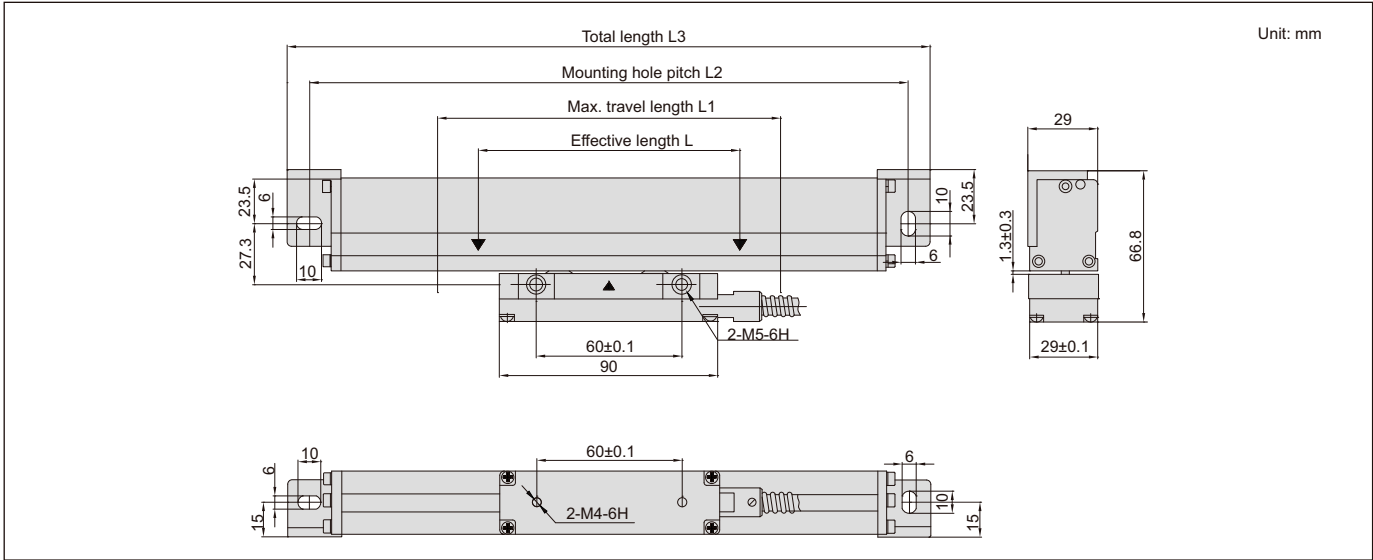
Kod	Ölçüm aralığı	Hassasiyet	Doğruluk
2875-30	0-30mm	0,1mm	±0,05mm

LINEAR SCALES (RS422 signal)



- Connected to digital display box or PLC

ISL-B5-450A



Effective length (L)	Code	
	Series ISL-B1	Series ISL-B5
50mm	ISL-B1-50A	ISL-B5-50A
100mm	ISL-B1-100A	ISL-B5-100A
150mm	ISL-B1-150A	ISL-B5-150A
200mm	ISL-B1-200A	ISL-B5-200A
250mm	ISL-B1-250A	ISL-B5-250A
300mm	ISL-B1-300A	ISL-B5-300A
350mm	ISL-B1-350A	ISL-B5-350A
400mm	ISL-B1-400A	ISL-B5-400A
450mm	ISL-B1-450A	ISL-B5-450A
500mm	ISL-B1-500A	ISL-B5-500A
550mm	ISL-B1-550A	ISL-B5-550A
600mm	ISL-B1-600A	ISL-B5-600A
650mm	ISL-B1-650A	ISL-B5-650A
700mm	ISL-B1-700A	ISL-B5-700A
750mm	ISL-B1-750A	ISL-B5-750A
800mm	ISL-B1-800A	ISL-B5-800A
850mm	ISL-B1-850A	ISL-B5-850A
900mm	ISL-B1-900A	ISL-B5-900A
950mm	ISL-B1-950A	ISL-B5-950A
1000mm	ISL-B1-1000A	ISL-B5-1000A

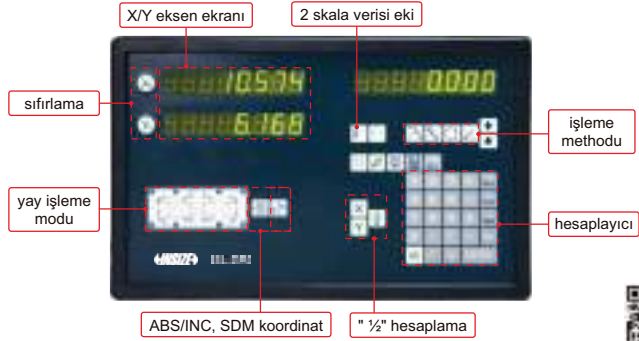
Effective length (L)	Code	
	Series ISL-B1	Series ISL-B5
1100mm	ISL-B1-1100A	ISL-B5-1100A
1200mm	ISL-B1-1200A	ISL-B5-1200A
1300mm	ISL-B1-1300A	ISL-B5-1300A
1400mm	ISL-B1-1400A	ISL-B5-1400A
1500mm	ISL-B1-1500A	ISL-B5-1500A
1600mm	ISL-B1-1600A	ISL-B5-1600A
1700mm	ISL-B1-1700A	ISL-B5-1700A
1800mm	ISL-B1-1800A	ISL-B5-1800A
1900mm	ISL-B1-1900A	ISL-B5-1900A
2000mm	ISL-B1-2000A	ISL-B5-2000A
2100mm	ISL-B1-2100A	ISL-B5-2100A
2200mm	ISL-B1-2200A	ISL-B5-2200A
2300mm	ISL-B1-2300A	ISL-B5-2300A
2400mm	ISL-B1-2400A	ISL-B5-2400A
2500mm	ISL-B1-2500A	ISL-B5-2500A
2600mm	ISL-B1-2600A	ISL-B5-2600A
2700mm	ISL-B1-2700A	ISL-B5-2700A
2800mm	ISL-B1-2800A	ISL-B5-2800A
2900mm	ISL-B1-2900A	ISL-B5-2900A
3000mm	ISL-B1-3000A	ISL-B5-3000A

SPECIFICATION

Code	Series ISL-B1	Series ISL-B5
L1(mm)	L+30(L<950), L+50(L≥950)	L+30(L<950), L+50(L≥950)
L2(mm)	L+136(L<950), L+136(L≥950)	L+136(L<950), L+136(L≥950)
L3(mm)	L+154(L<950), L+174(L≥950)	L+154(L<950), L+174(L≥950)
Resolution	1μm	5μm
Thickness	29mm	
Max. response speed	60m/min	
Scale grating pitch	20μm	
Scale reference point pitch	50mm	
Accuracy	±(5+5L/1000)μm, L is the effective length in mm	
Cable length	3.5m (L: 50-950mm), 5m (L: 1000-1900mm), 10m (L: 2000-3000mm)	
Output signal	RS422	
Socket	9 PD	
Power supply	5±0.25V	

STANDARD DELIVERY

Main unit	1pc
'L' shape support	1pc
Anti-dust cover	1pc
Plain base	1pc(for L≥1500mm)
Mounting accessories	1 package



ISL-DR2



ISL-DR3

ÖZELLİK

Kod	ISL-DR2	ISL-DR3
Uygulama	iki düzlem	üç düzlem
Skala giriş portları	2	3
Çözünürlük	0,05µm; 0,1µm; 0,2µm; 0,5µm; 1µm; 2µm; 5µm; 10µm; 20µm; 50µm	
İşlev	2 skala verisi ekleme, düzlemsellik hata kompensesi, yumuşatma, RS232C arayüz ünitesi, BCD kod çıkışı, sıfırlama, ön ayar, çözünürlük ayarı, sayma yönü ayarı, inç/metrik çevirme, ABS/INC çevirme, genişleme/daralma katsayısı, ayarlama, "½" hesaplama, RI bulma, cıvata deliği işleme, eğim işleme	
Güç kaynağı	110/220V, 50/60Hz	
Boyut	295×185×45mm	
Ağırlık	1,45kg	

STANDART DAĞILIM

Ana ünite	1 parça
Bağlama braket	1 parça
Yer kablosu	1 parça
RS232C kablo	1 parça
RS232C için yazılım CD'si	1 parça



CD yazılım
(dahil)



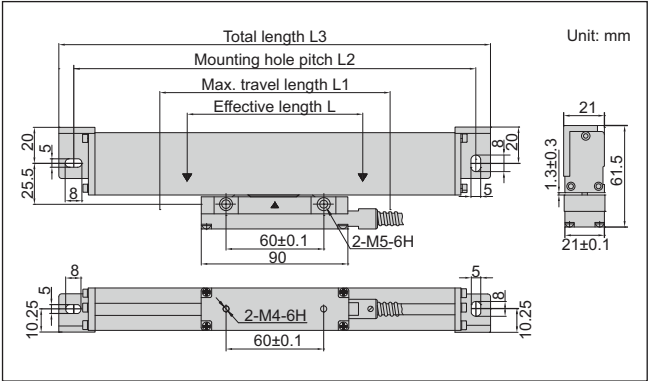
bağlama braket (dahil)



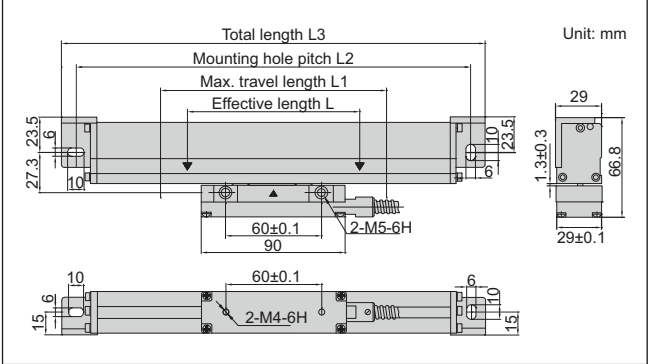


ISL-A1-300

Series ISL-A1 and ISL-A5



Series ISL-B5



STANDARD DELIVERY

Main unit	1 pc
'L' shape support	1 pc
Anti-dust cover	1 pc
Plain base	1 pc (for L≥1500mm)
Mounting accessories	1 package

Effective length (L)	Code		
	Series ISL-A1	Series ISL-A5	Series ISL-B5
50mm	ISL-A1-50	ISL-A5-50	ISL-B5-50
100mm	ISL-A1-100	ISL-A5-100	ISL-B5-100
150mm	ISL-A1-150	ISL-A5-150	ISL-B5-150
200mm	ISL-A1-200	ISL-A5-200	ISL-B5-200
250mm	ISL-A1-250	ISL-A5-250	ISL-B5-250
300mm	ISL-A1-300	ISL-A5-300	ISL-B5-300
350mm	ISL-A1-350	ISL-A5-350	ISL-B5-350
400mm	ISL-A1-400	ISL-A5-400	ISL-B5-400
450mm	ISL-A1-450	ISL-A5-450	ISL-B5-450
500mm	ISL-A1-500	ISL-A5-500	ISL-B5-500
550mm	ISL-A1-550	ISL-A5-550	ISL-B5-550
600mm	ISL-A1-600	ISL-A5-600	ISL-B5-600
650mm	ISL-A1-650	ISL-A5-650	ISL-B5-650
700mm	ISL-A1-700	ISL-A5-700	ISL-B5-700
750mm	ISL-A1-750	ISL-A5-750	ISL-B5-750
800mm	ISL-A1-800	ISL-A5-800	ISL-B5-800
850mm	ISL-A1-850	ISL-A5-850	ISL-B5-850
900mm	ISL-A1-900	ISL-A5-900	ISL-B5-900
950mm	ISL-A1-950	ISL-A5-950	ISL-B5-950
1000mm	ISL-A1-1000	ISL-A5-1000	ISL-B5-1000
1100mm		ISL-A5-1100	ISL-B5-1100
1200mm			ISL-B5-1200
1300mm			ISL-B5-1300
1400mm			ISL-B5-1400
1500mm			ISL-B5-1500
1600mm			ISL-B5-1600
1700mm			ISL-B5-1700
1800mm			ISL-B5-1800
1900mm			ISL-B5-1900
2000mm			ISL-B5-2000
2100mm			ISL-B5-2100
2200mm			ISL-B5-2200
2300mm			ISL-B5-2300
2400mm			ISL-B5-2400
2500mm			ISL-B5-2500
2600mm			ISL-B5-2600
2700mm			ISL-B5-2700
2800mm			ISL-B5-2800
2900mm			ISL-B5-2900
3000mm			ISL-B5-3000
3100mm			ISL-B5-3100
3200mm			ISL-B5-3200



'L' shape support (included)



mounting accessories (included)



anti-dust cover (included)

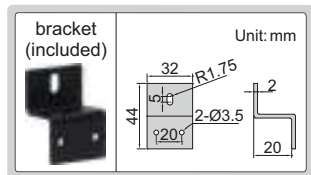


plain base (included, for $L \geq 1500\text{mm}$)

SPECIFICATION

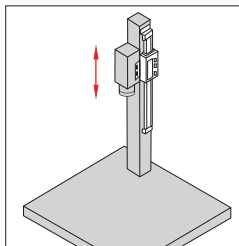
Code	Series ISL-A1		Series ISL-A5		Series ISL-B5	
L1 (mm)	L+30(L<950)	L+50(L≥950)	L+30(L<950)	L+50(L≥950)	L+30(L<950)	L+50(L≥950)
L2 (mm)	L+132(L<950)	L+152(L≥950)	L+132(L<950)	L+152(L≥950)	L+136(L<950)	L+156(L≥950)
L3 (mm)	L+149(L<950)	L+169(L≥950)	L+149(L<950)	L+169(L≥950)	L+154(L<950)	L+174(L≥50)
Resolution	1μm		5μm		5μm	
Max. response speed	50m/min		90m/min		60m/min	
Scale grating pitch	20μm					
Scale reference point pitch	50mm					
Accuracy	±(5+5L/1000)μm L is the effective length in mm					
Cable length	3.5m (L: 50-950mm), 5m (L: 1000-1500mm), 10m (L: 1600-3200mm)					

DIGITAL VERTICAL SCALES



- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch, ABS/INC, data hold, TOL, set
- Battery LR44, data output
- Made of stainless steel
- Supplied with bracket to be mounted on the back
- Optional accessory: data output cable (code **7302-SPC7**, keyboard format)

example of application



data output cable



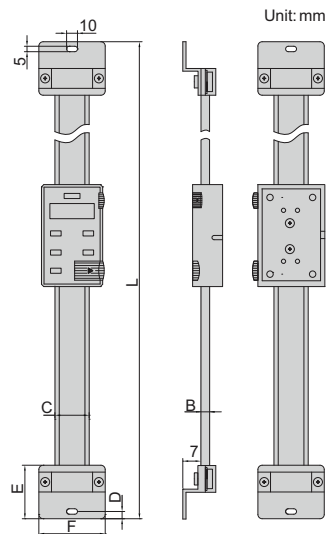
(mm)

Code	Range	Accuracy	B	C	D	E	F	L
7102-100	100mm/4"	±0.02mm	4	20	6	24	40	245
7102-150	150mm/6"	±0.03mm	4	20	6	24	40	296
7102-200	200mm/8"	±0.03mm	4	20	6	24	40	345
7102-300	300mm/12"	±0.04mm	4	20	6	24	40	445
7102-400	400mm/16"	±0.05mm	4	20	6	24	40	545
7102-500	500mm/20"	±0.05mm	5.5	24	8	32	45	685
7102-600	600mm/24"	±0.08mm	5.5	24	8	32	45	785
7102-800	800mm/32"	±0.10mm	5.5	24	8	32	45	985
7102-1000	1000mm/40"	±0.10mm	10.5	31	25	40	60	1245

DATA
OUTPUT



7102-300

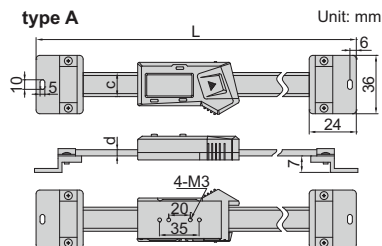


DIGITAL HORIZONTAL SCALES

DATA
OUTPUT



7101-300A



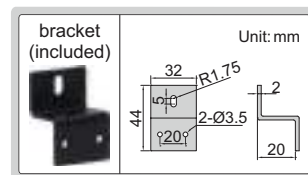
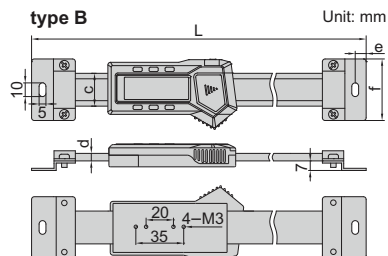
- Resolution: 0.01mm/0.0005"
- Buttons type A: on/off, zero, mm/inch,
type B: on/off, zero, mm/inch, ABS, data preset
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Supplied with bracket to be mounted on the back

With data interface
(data output cable code 7315-21, 7302-21, optional) (mm)

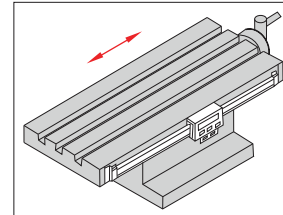
Code	Range	Type	Accuracy	L	c	d
7101-100A	100mm	A	±0.02mm	215	16	4
7101-150A	150mm	A	±0.03mm	265	16	4
7101-200A	200mm	A	±0.03mm	315	16	4
7101-300A	300mm	A	±0.04mm	445	16	4



7101-400A

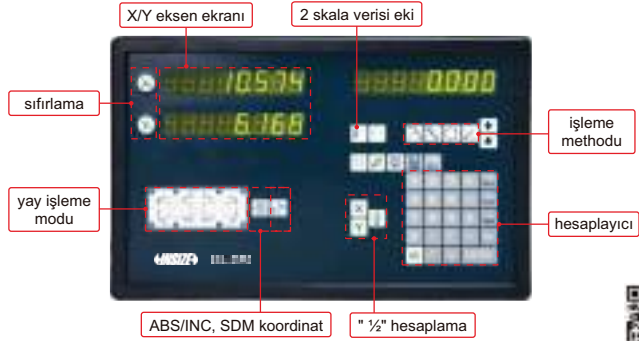


example of application



With data interface
(data output cable code 7315-22, 7302-22, optional) (mm)

Code	Range	Type	Accuracy	L	c	d	e	f
7101-400A	400mm	B	±0.05mm	590	24	5.5	8	45
7101-500A	500mm	B	±0.05mm	690	24	5.5	8	45
7101-600A	600mm	B	±0.08mm	790	24	5.5	8	45
7101-800A	800mm	B	±0.10mm	990	24	5.5	8	45
7101-1000A	1000mm	B	±0.10mm	1240	31	10.5	10	60



ISL-DR2



ISL-DR3

ÖZELLİK

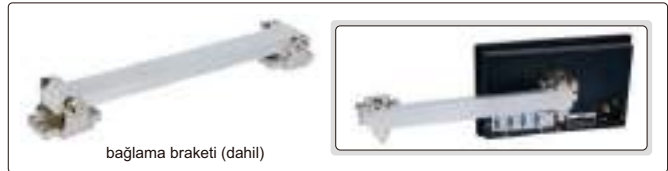
Kod	ISL-DR2	ISL-DR3
Uygulama	iki düzlem	üç düzlem
Skala giriş portları	2	3
Çözünürlük	0,05µm; 0,1µm; 0,2µm; 0,5µm; 1µm; 2µm; 5µm; 10µm; 20µm; 50µm	
İşlev	2 skala verisi ekleme, düzlemsellik hata kompensesi, yumuşatma, RS232C arayüz ünitesi, BCD kod çıkışı, sıfırlama, ön ayar, çözünürlük ayarı, sayma yönü ayarı, inç/metrik çevirme, ABS/INC çevirme, genişleme/daralma katsayısı, ayarlama, "½" hesaplama, RI bulma, cıvata deliği işleme, eğim işleme	
Güç kaynağı	110/220V, 50/60Hz	
Boyut	295×185×45mm	
Ağırlık	1,45kg	

STANDART DAĞILIM

Ana ünite	1 parça
Bağlama braket	1 parça
Yer kablosu	1 parça
RS232C kablo	1 parça
RS232C için yazılım CD'si	1 parça



CD yazılım
(dahil)



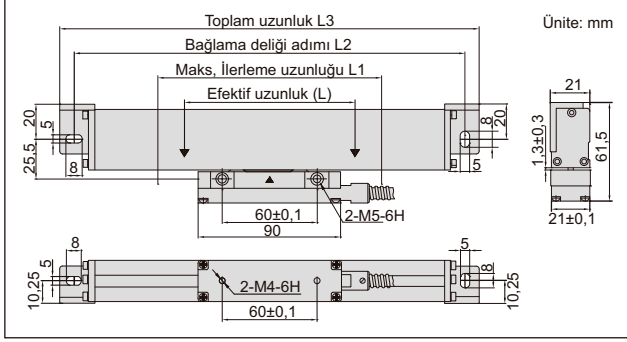
LİNEAR SKALA



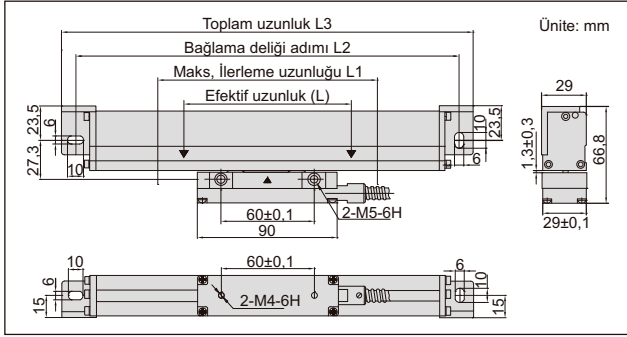
ISL-A1-300



ISL-A1 ve ISL-A5 serisi

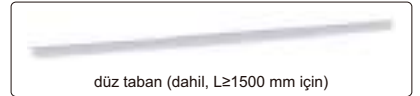


ISL-B5 serisi



STANDART DAĞILIM

Ana ünite	1 parça
L' şekil destek	1 parça
Kılıf	1 parça
Düz taban	1 parça (L≥1500mm için)
Bağlama aksesuarları	1 paket



ÖZELLİK

Kod	ISL-A1 serisi		ISL-A5 serisi		ISL-B5 serisi	
L1 (mm)	L+30 (L<950)	L+50 (L≥950)	L+30 (L<950)	L+50 (L≥950)	L+30 (L<950)	L+50 (L≥950)
L2 (mm)	L+132 (L<950)	L+152 (L≥950)	L+132 (L<950)	L+152 (L≥950)	L+136 (L<950)	L+156 (L≥950)
L3 (mm)	L+149 (L<950)	L+169 (L≥950)	L+149 (L<950)	L+169 (L≥950)	L+154 (L<950)	L+174 (L≥950)
Çözünürlük	1µm		5µm		5µm	
Maks; tepki hızı	50m/min		90m/min		60m/min	
Skala ızgara adımı	20µm					
Skala referans nokta adımı	50mm					
Doğruluk	±(5+5L/1000)µm L; mm olarak efektif uzunluktur					
Kablo uzunluğu	3,5m (L: 50-950mm); 5m (L: 1000-1500mm); 10m (L: 1600-3200mm)					

Efektif uzunluk (L)	Kod		
	ISL-A1 serisi	ISL-A5 serisi	ISL-B5 serisi
50mm	ISL-A1-50	ISL-A5-50	ISL-B5-50
100mm	ISL-A1-100	ISL-A5-100	ISL-B5-100
150mm	ISL-A1-150	ISL-A5-150	ISL-B5-150
200mm	ISL-A1-200	ISL-A5-200	ISL-B5-200
250mm	ISL-A1-250	ISL-A5-250	ISL-B5-250
300mm	ISL-A1-300	ISL-A5-300	ISL-B5-300
350mm	ISL-A1-350	ISL-A5-350	ISL-B5-350
400mm	ISL-A1-400	ISL-A5-400	ISL-B5-400
450mm	ISL-A1-450	ISL-A5-450	ISL-B5-450
500mm	ISL-A1-500	ISL-A5-500	ISL-B5-500
550mm	ISL-A1-550	ISL-A5-550	ISL-B5-550
600mm	ISL-A1-600	ISL-A5-600	ISL-B5-600
650mm	ISL-A1-650	ISL-A5-650	ISL-B5-650
700mm	ISL-A1-700	ISL-A5-700	ISL-B5-700
750mm	ISL-A1-750	ISL-A5-750	ISL-B5-750
800mm	ISL-A1-800	ISL-A5-800	ISL-B5-800
850mm	ISL-A1-850	ISL-A5-850	ISL-B5-850
900mm	ISL-A1-900	ISL-A5-900	ISL-B5-900
950mm	ISL-A1-950	ISL-A5-950	ISL-B5-950
1000mm	ISL-A1-1000	ISL-A5-1000	ISL-B5-1000
1100mm		ISL-A5-1100	ISL-B5-1100
1200mm			ISL-B5-1200
1300mm			ISL-B5-1300
1400mm			ISL-B5-1400
1500mm			ISL-B5-1500
1600mm			ISL-B5-1600
1700mm			ISL-B5-1700
1800mm			ISL-B5-1800
1900mm			ISL-B5-1900
2000mm			ISL-B5-2000
2100mm			ISL-B5-2100
2200mm			ISL-B5-2200
2300mm			ISL-B5-2300
2400mm			ISL-B5-2400
2500mm			ISL-B5-2500
2600mm			ISL-B5-2600
2700mm			ISL-B5-2700
2800mm			ISL-B5-2800
2900mm			ISL-B5-2900
3000mm			ISL-B5-3000
3100mm			ISL-B5-3100
3200mm			ISL-B5-3200



ATTENTION:
NO DATA OUTPUT

IP67
WATERPROOF

IP67 WATERPROOF DIGITAL CALIPERS

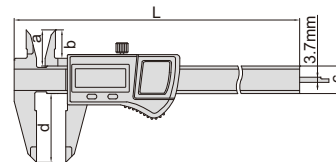
- IP67 dust/waterproof
- Resolution: 0.01mm/0.0005"
- Button function: zero, on/off, mm/inch
- Battery CR2032
- Automatic power off
- Meet DIN862
- Made of stainless steel



1115-150

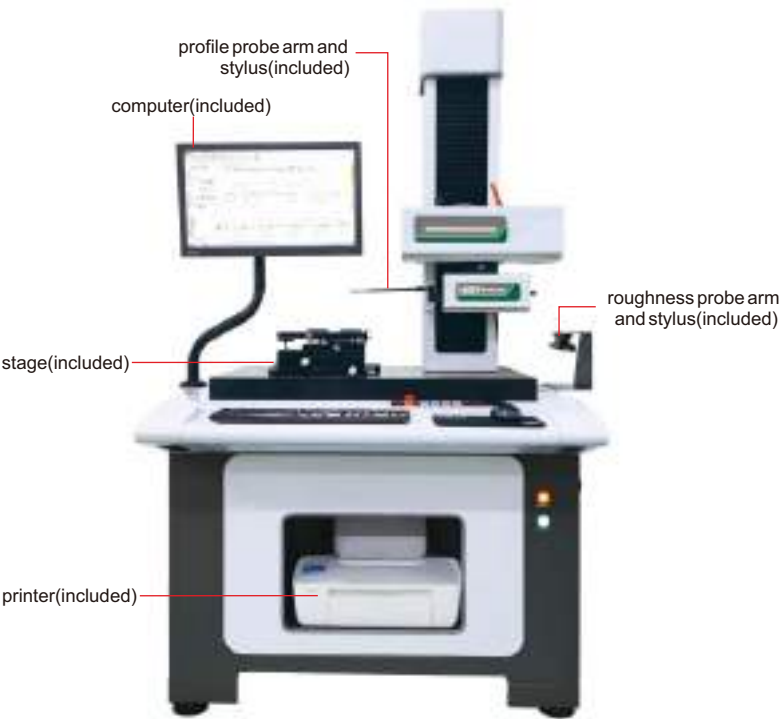
Code	Range	Accuracy	L	a	b	c	d
1115-150 *	0-150mm/0-6"	±0.03mm	235mm	20mm	15mm	16mm	40mm
1115-200 *	0-200mm/0-8"	±0.03mm	287mm	24mm	19mm	16mm	50mm
1115-300 *	0-300mm/0-12"	±0.03mm	388mm	26mm	21mm	16mm	60mm

* Supplied with manufacturer inspection certificate



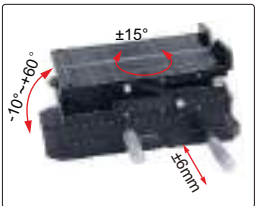
ROUGHNESS AND PROFILE MEASURING MACHINE
CODE SPM-2000

- Software is included, for measurement and data output
- Profile sensor with low noise
- Wide range roughness sensor without skid



PROFILE MEASUREMENT SPECIFICATION

X axis measuring range	140mm
X axis resolution	0.2μm
X axis traverse speed	0.05~15mm/s
Z axis measuring range	50mm
Z axis resolution	0.05μm
Z axis traverse speed	0.2~15mm/s
Straightness	0.5μm/100mm
Linear accuracy	±(0.8+ 0.15H)μm, H is measuring height in mm
Angular measuring accuracy	±1'
Arc measuring accuracy	±(1.5+R/12)μm, R is 2~10mm standard ball
Diameter of probe tip	25μm
Measuring unit	μm/μin
Measuring speed	0.05~1mm/s
Traceable angle	72° (upward), 88° (downward)
Travel of Z axis	430mm
Power supply	220±5%V, 50Hz
Dimension (L×W×H)	1400×850×1780mm
Weight	350kg



stage (included)



vise (included)

ROUGHNESS MEASUREMENT SPECIFICATION

Roughness parameters	Ra, Rp, Rv, Rz, Rz(JIS), R3z, Rz(DIN), Rzj, Rmax, Rc, Rt, Rq, Rsk, Rku, Rsm, Rs, PΔq, Rk, Rpk, Rvk, Mr1, Mr2, Rmr
Waviness parameters	Wa, Wt, Wp, Wv, Wz, Wq, Wsm, Wsk, Wku, Wmr
Original profile parameters	Pa, Pt, Pp, Pv, Pz, Pq, Psm, Psk, Pku, Pmr
Measuring range	±620μm
Resolution	262144:1
Linear accuracy	≤±(5nm+2.8%)
Probe radius/angle	5μm/90°
Cut off	0.025/0.08/0.25/0.8/2.5/8mm
Number of cut-offs	2~7
Measuring unit	μm/μin
Measuring speed	0.05~0.25mm/s

STANDARD DELIVERY

Main unit	1 pc
Calibration block	1 set
Roughness probe arm	1 pc
Roughness stylus	1 pc
Profile probe arm	1 pc
Profile chisel stylus	1 pc
Stage	1 set
Vise	1 set
Computer	1 pc
Software	1 set
Printer	1 pc
Installation tools	1 set

OPTIONAL ACCESSORY

Probe and arm	see details
---------------	-------------



standard balls (included)



standard blocks (included)

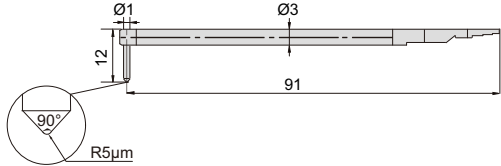


standard shaft (included)

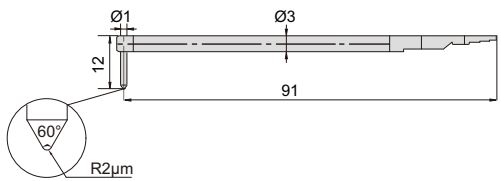
SPECIFICATION OF ROUGHNESS PROBE

Unit: mm

standard arm, code SPM-2000-P (included), probe is included



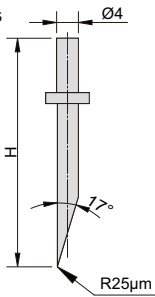
small roughness arm, code SPM-2000-P1 (optional), probe is included



SPECIFICATION OF PROFILE PROBES AND ARMS

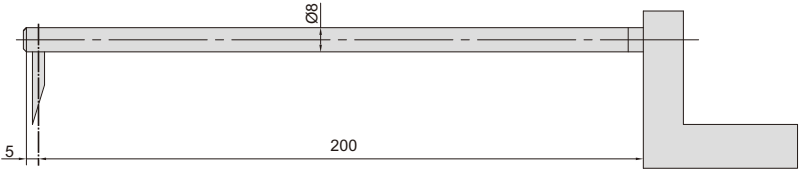
Unit: mm

chisel probes

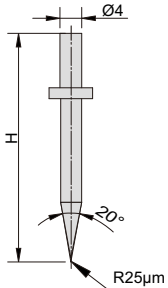


- code SPM-1000-T01 (H=32mm, included)
- code SPM-1000-T02 (H=48mm, optional)
- code SPM-1000-T03 (H=68mm, optional)

standard arm, code SPM-1000-SP (included), probe is not included

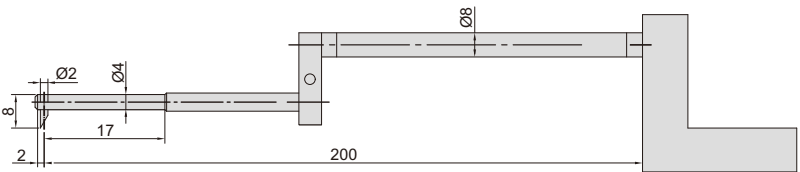


cone probes



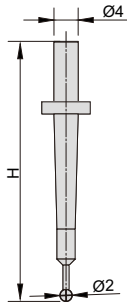
- code SPM-1000-Z01 (H=32mm, optional)
- code SPM-1000-Z02 (H=48mm, optional)
- code SPM-1000-Z03 (H=68mm, optional)

arm for small holes, code SPM-1000-SBP (optional), probe is included



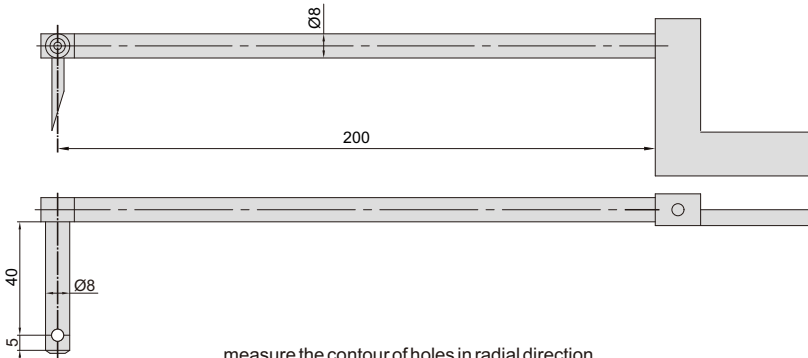
measure the contour of holes with diameter > Ø8mm

ball probes



- code SPM-1000-R01 (H=32mm, optional)
- code SPM-1000-R02 (H=48mm, optional)
- code SPM-1000-R03 (H=68mm, optional)

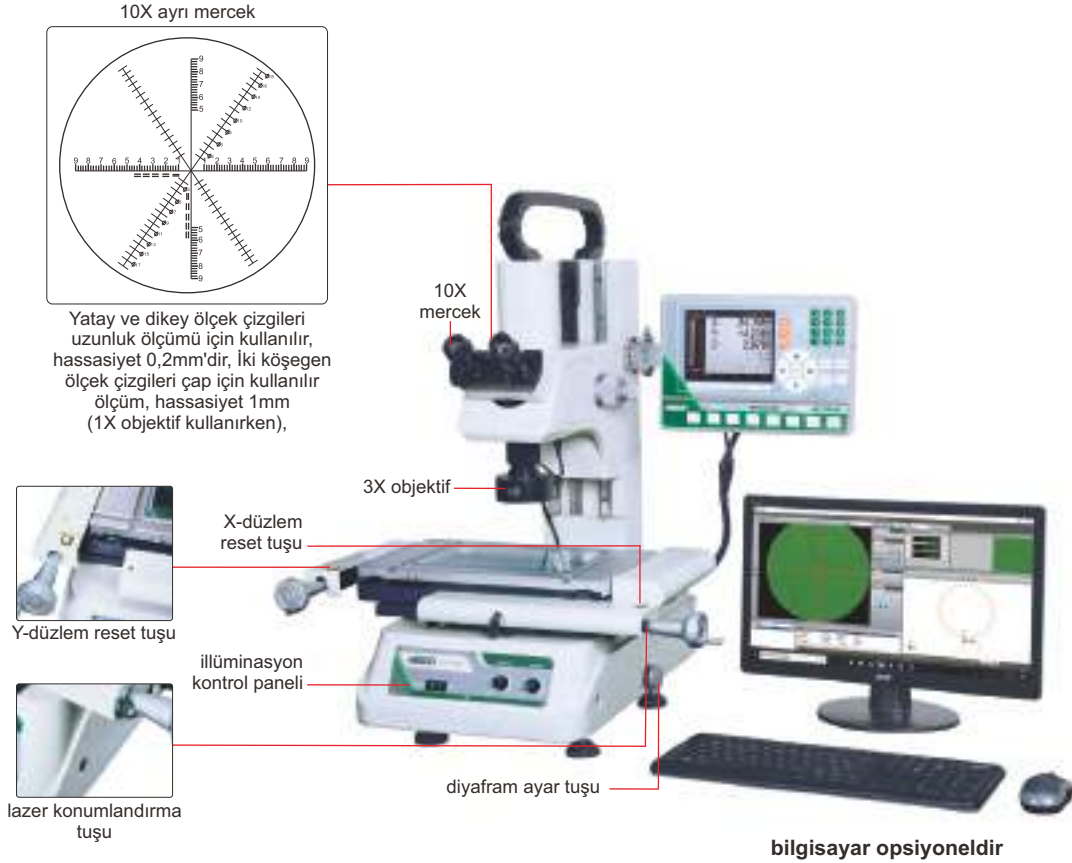
transverse arm, code SPM-1000-LP (optional), probe is not included



measure the contour of holes in radial direction

TAKIM YAPICI MİKROSKOBU

KALİBRASYON
SERTİFİKASI



ISD-VMM215

bilgisayar opsiyoneldir

17

ÖZELLİK

Kod	Binoküler Tek gözlü	ISD-VMM205	ISD-VMM215	ISD-VMM225	ISD-VMM235
		ISD-VMM205D	ISD-VMM215D	ISD-VMM225D	ISD-VMM235D
X/Y eksen turu		150×100mm	200×100mm	250×150mm	300×200mm
Z eksen turu		150mm	150mm	200mm	200mm
Metal tabla boyutu		354×228mm	404×228mm	450×280mm	500×330mm
Cam tabla boyutu		210×160mm	260×160mm	306×196mm	350×250mm
X/Y/Z eksen çözünürlüğü		0,5µm			
X/Y eksen doğruluğu		≤(3,5+L/100)µm (L, ölçme uzunluğu)			
Tekrarlılık		2µm			
Kamera		1/3" renk CCD, 0,3M pixel			
Optik büyütme		30X (3X Objektif ile)			
Görüntü büyütme		114X (19" monitör üzerinde)			
Yansım		ayarlanabilir LEDli yüzey ve kontur			
Iş parçasının max.ağırlığı		25kg			
Güç kaynağı		100V~240V, 50/60Hz			
İşletim sistemi		Windows 7/8/10			
Sürme yöntemi		manuel			
Boyut (LxWxH)		540×667×850mm	540×667×850mm	800×675×920mm	800×675×920mm
Ağırlık		100kg	110kg	135kg	140kg

Devam ediyor

Önceki sayfanın devamı

BİLGİ İŞLEME ÜNİTESİ

Çıkış	RS232
İşlev	 Kolay ölçüm araçları
	 Uç koordinasyonunu ölçer
	 Çizgileri ölçer
	 Üç noktanın merkezi koordinatını, yarıçaplarını ölçer
	 İki nesne arasındaki mesafeyi ölçer
	 Açı ölçer
	 Koordinat orijin ayarlama
	 İş parçası eğritilir ve kalibre edilir
	 Dikdörtgen ölçülür (uzunluk, genişlik, çevre ve merkez koordinat)
	 Dış ölçülür (dış çapı, vida aralığı, vida açısı dahil)
	 Yuva ölçülür (merkez koordinat, uzunluk, genişlik dahil)

STANDART TESLİMAT

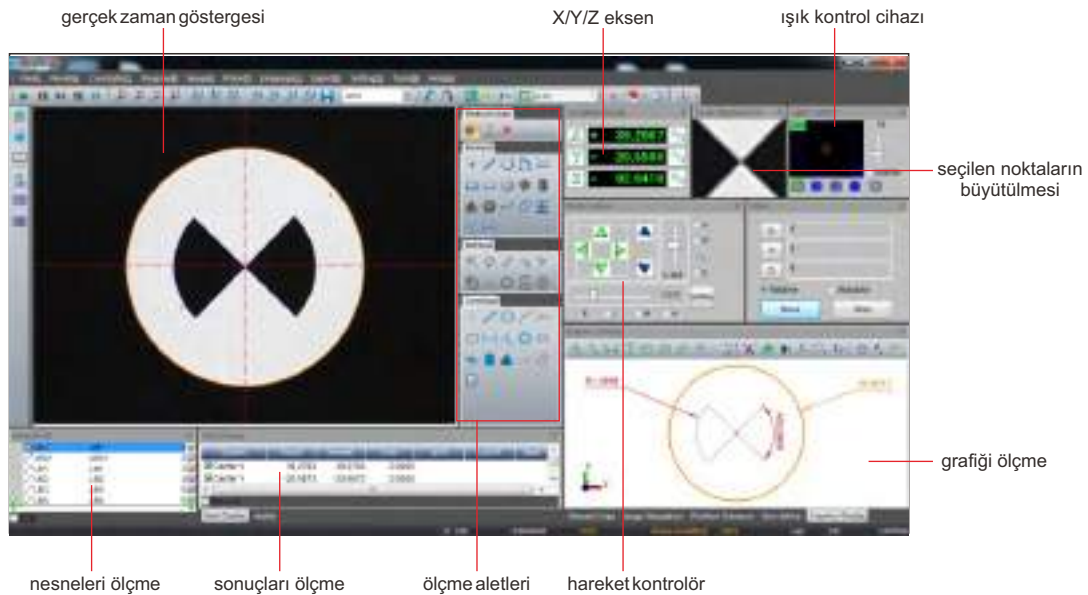
Ana ünite	1 parça
Program kilitli video kartı	1 parça
Yazılım disk	1 parça
Kalibrasyon cam şema	1 parça
Demo örneği	1 parça
Ayak pedalı	1 parça
3X objektif	1 parça

OPSİYONEL AKSESUAR

1X objektif	ISD-VMM-LENS1X
5X objektif	ISD-VMM-LENS5X
10X objektif	ISD-VMM-LENS10X
Takım yapıcı Mikroskobu (bilgisayar dahil)	Kod: ISD-VMM205A (binoküler) ISD-VMM215A (binoküler) ISD-VMM225A (binoküler) ISD-VMM235A (binoküler) Kod: ISD-VMM205DA (tek gözlü) ISD-VMM215DA (tek gözlü) ISD-VMM225DA (tek gözlü) ISD-VMM235DA (tek gözlü)

YAZILIM (DAHİL)

- Detay için 327~328 sayfaya bakınız



ELECTRONIC UNIVERSAL TESTING MACHINES



- For tensile, compression, bend, shear, peel, tear tests of metal and non-metal materials

STANDARD DELIVERY

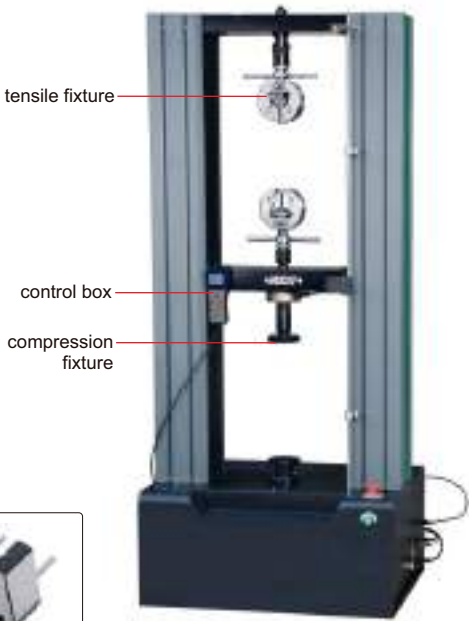
Main unit	1 pc
Control box	1 pc
Computer	1 pc
Measuring software	1 pc
Printer	1 pc
Wedge tension fixture (including flat jaws and V-shaped jaws)	1 set
Compression fixture	1 set
Extensometer (only for UTM-E100, UTM-E300)	1 pc



flat jaws (included)



V-shaped jaws (included)



UTM-E50

OPTIONAL ACCESSORY

Extensometer

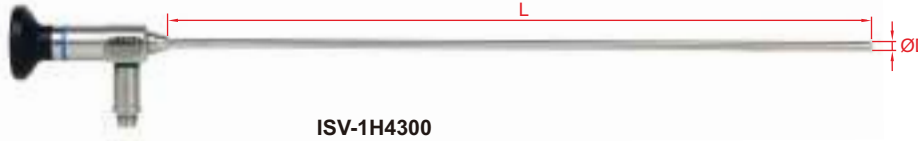
SPECIFICATION

Code	UTM-E10	UTM-E50	UTM-E100	UTM-E300
Max. test force	10kN	50kN	100kN	300kN
Accuracy class	0.5 class			
Test force measurement range	0.2%~100%FS			
Test force measurement accuracy	±0.5% of indicating value			
Resolution of test force measurement	1/300000 of Max. test force (same resolution all the way)			
Deformation measurement range	0.2%~100%FS			
Deformation measurement accuracy	±0.5% of indicating value			
Deformation measurement resolution	1/200000 of Max. deformation, up to 1/300000			
Large deformation measurement range	10~800mm			
Large deformation measurement accuracy	±1% of indicating value			
Large deformation measurement resolution	8μm			
Displacement accuracy	±0.5% of indicating value			
Displacement resolution	0.01mm			
Force control speed adjustment range	0.005~5%FS/s			
Force control speed control accuracy	±2% of the set value (speed<0.05%FS/s) ±0.5% of the set value (speed≥0.05%FS/s)			
Deformation speed adjustment range	0.005~5%FS/s			
Deformation speed control accuracy	±2% of the set value (speed<0.05%FS/s) ±0.5% of the set value (speed≥0.05%FS/s)			
Beam displacement speed adjustment range	0.001~500mm/min			
Beam displacement speed control accuracy	±1% of the set value (speed<0.5mm/min) ±0.2% of the set value (speed≥0.5mm/min)			
Crosshead travel*	1030mm	970mm	1250mm	1000mm
Effective compression travel*	800mm	700mm	700mm	600mm
Horizontal test space*	400mm	440mm	600mm	550mm
Power supply	220V, 50Hz, 0.4kW~1kW		380V, 50Hz, 2kW~5kW	
Demension	715×500×1680mm	820×620×1880mm	1070×855×2180mm	1070×920×2550mm
Weight	230kg	350kg	1000kg	1500kg

* Can be customized according to test requirements

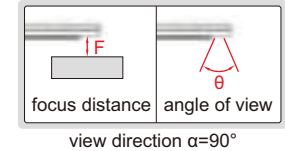
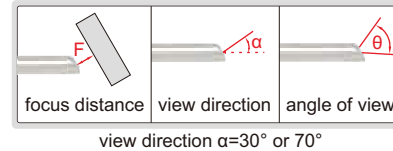
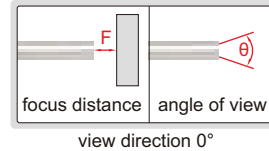
RIGID BORESCOPIES

IP67
WATERPROOF



ISV-1H4300

- Focus distance: 2mm, depth of view: 5~100mm
- Dust/waterproof level: IP67
- Can be used in liquid with temperature -10°C~85°C



SPECIFICATION

Code	Length(L)	View direction (α)	Diameter ($\varnothing D$)	Angle of view (θ)
ISV-1H4170	174mm	0°	4mm	$\geq 60^\circ$
ISV-1H4173	174mm	30°		
ISV-1H4177	174mm	70°		
ISV-1H4300	302mm	0°		
ISV-1H4303	302mm	30°		
ISV-1H4307	302mm	70°		
ISV-1H4309	297mm	90°		

OPTIONAL ACCESSORY

LED light handle	ISV-1HLED
Adjustable LED light source	ISV-1LED1
Camera and display	ISV-2CAM



LED light handle
(optional)



adjustable LED light source
(optional)



camera and display
(optional)

DIGITAL CALIPERS (ABSOLUTE SYSTEM)

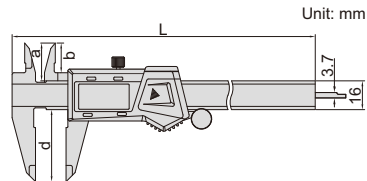
- Absolute system, low power consumption, long battery life
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, mm/inch, ORIGIN, ZERO/ABS
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Meet DIN862
- Made of stainless steel
- Optional accessory: wireless transmitter, code **7315-1103**, data output cable (keyboard format), code **7302-1103**



1103-150

Code	Range	Accuracy	L	a	b	d
1103-150 *	0-150mm/0-6"	±0.03mm	236mm	21mm	16.5mm	40mm
1103-200 *	0-200mm/0-8"	±0.03mm	286mm	24mm	19.5mm	50mm
1103-300 *	0-300mm/0-12"	±0.03mm	400mm	26mm	21.5mm	60mm

* Supplied with manufacturer inspection certificate



IP67 WATERPROOF DIGITAL CALIPERS

**INSPECTION
CERTIFICATE**
TRACEABLE TO DKD

IP67
WATERPROOF

ATTENTION:
NO DATA OUTPUT

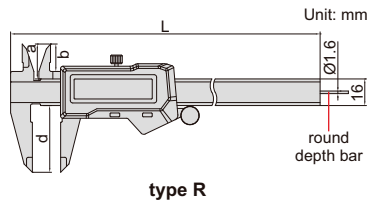
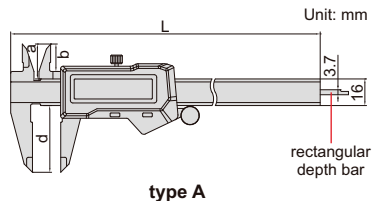
**ATTENTION: THE WORKING LIFE
OF A BATTERY IS ABOUT 4-6 MONTHS**



1126-150



1126-150R



- IP67 dust/waterproof
- Resolution: 0.01mm/0.0005"
- Large display
- Button function: zero, on/off, mm/inch
- Battery CR2032
- Automatic power off
- Meet DIN862
- Made of stainless steel

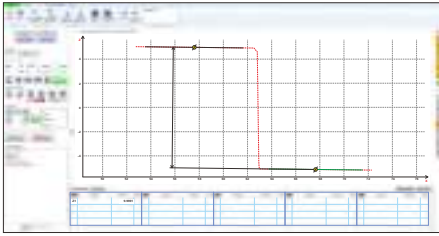
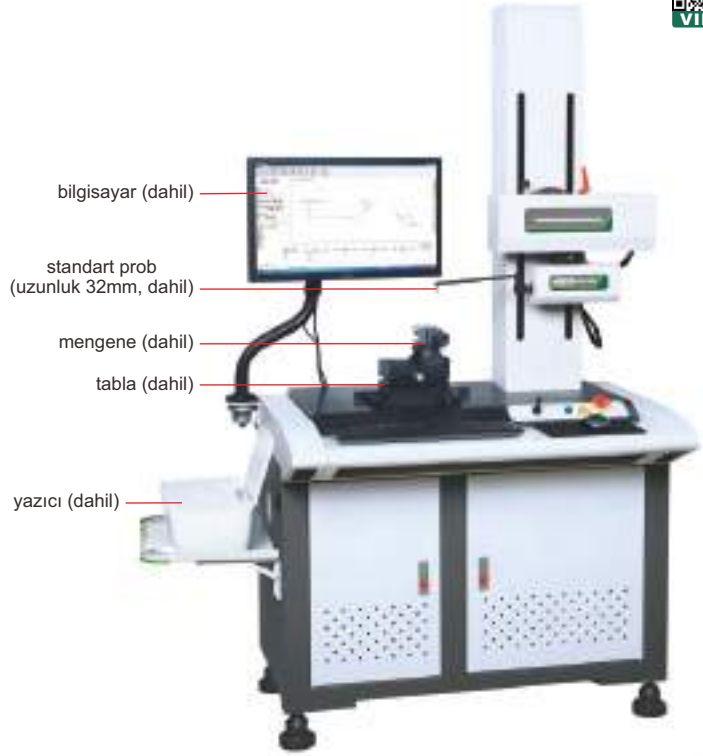
(mm)							
Code	Range	Accuracy	Type	L	a	b	d
1126-150 *	0-150mm/0-6"	±0.03mm	A	234	20	15	40
1126-200 *	0-200mm/0-8"	±0.03mm	A	286	24	19	50
1126-300 *	0-300mm/0-12"	±0.03mm	A	390	26	21.5	60
1126-150R *	0-150mm/0-6"	±0.03mm	R	234	20	15	40

* Supplied with manufacturer inspection certificate traceable to DKD Germany

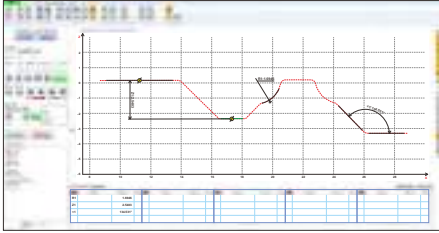
YÜZEY PROFİLİ ÖLÇME MAKİNESİ KOD SPM-1000



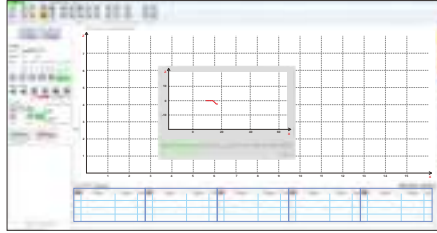
- Yüzey profili ölçümü ve veri çıkışı için yazılım dahildir
- Prob dengeleme
- txt, cvs gibi formatlar için çıkış
- Geniş aralık tasarımı, kaldırma oranı 1: 2,2, sensörün orijinal doğruluğunu korur
- Z eksen sensörünün genel yapısının, probun konumundan bağımsız olarak ölçüm kuvvetinin sabit olmasını sağlayan herhangi bir elastik bileşeni yoktur



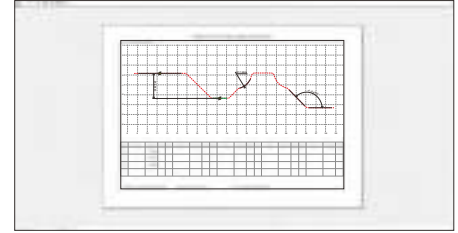
kalibrasyon



boyut ölçümü



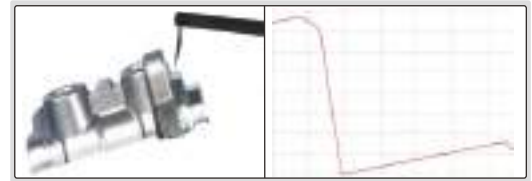
kontur tarama



bilgi çıkışı

ÖZELLİK

X eksen ölçüm aralığı	140mm
X eksen çözünürlüğü	0,2µm
X eksen düzlüğü	0,8µm/100mm
X eksen ters çevirme hızı	0,1~10mm/s
Z eksen ölçüm aralığı	±20mm
Z eksen çözünürlüğü	0,05µm
Z eksen ters çevirme hızı	0,5~10mm/s
Linear doğruluk	$\pm(1,5+ 0,2H)\mu\text{m}$, H, mm cinsinde uzunluk birimidir
Açısal ölçüm doğruluğu	±2'
Yay ölçüm doğruluğu	$\pm(2+R/8)\mu\text{m}$, R; 2~10mm standart uçtur
Prob ucun yarı çapı	25µm
Çapraz yön	geri
Kuvvet ölçer	6,86~9,8mN
Ölçme ünitesi	mm/inç
İzlenebilir açı	72° (üst), 87° (alt)
Kullanım modu	motor
Z eksen hareketi	430mm
Boyut (L×W×H)	1200×700×1780mm
Güç kaynağı	220±5%V, 50Hz
Ağırlık	320kg



standart uç (dahil)



standart mil (dahil)



standart blok (dahil)

Devam ediyor

Önceki sayfanın devamı

STANDART TESLİMAT

Ana ünite	1 parça
Standart prob ve kolu	1 her bir parça
Standart blok	2 parça
Standart uç	2 parça
Standart mil	1 parça
Adım	1 parça
Mengene	1 parça
Ölçme kolu	1 parça
Bilgisayar	1 parça
Ölçüm yazılımı	1 parça
Yazıcı	1 parça
Kurulum araçları	1 ayar

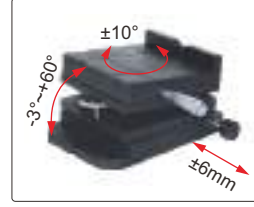


tabla (dahil)



mengene (dahil)

OPSİYONEL AKSESUAR

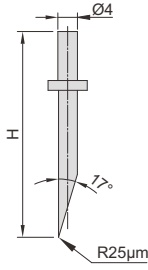
Prob ve kolu

ayrıntılara bakınız

PROB VE KOL ÖZELLİĞİ

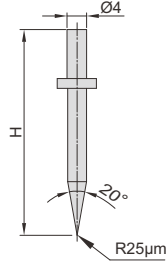
Ünite: mm

çizel probu



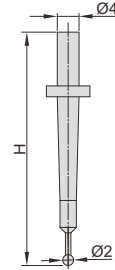
kod **SPM-1000-T01** (H=32mm, dahil)
kod **SPM-1000-T02** (H=48mm, opsiyonel)
kod **SPM-1000-T03** (H=68mm, opsiyonel)

koni probu



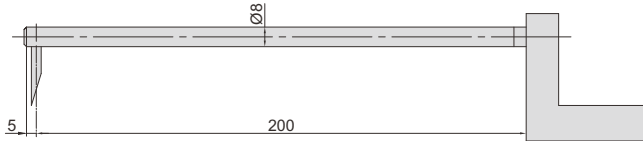
kod **SPM-1000-Z01** (H=32mm, opsiyonel)
kod **SPM-1000-Z02** (H=48mm, opsiyonel)
kod **SPM-1000-Z03** (H=68mm, opsiyonel)

uç probu

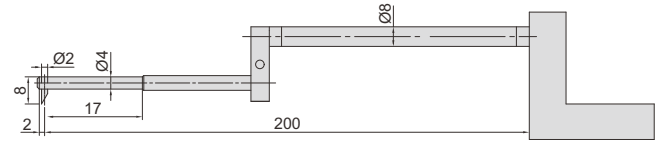


kod **SPM-1000-R01** (H=32mm, opsiyonel)
kod **SPM-1000-R02** (H=48mm, opsiyonel)
kod **SPM-1000-R03** (H=68mm, opsiyonel)

standart kol, kod SPM-1000-SP (dahil), prob dahil değildir



küçük delikler için kol, kod SPM-1000-SBP (opsiyonel), prob dahildir



>Ø8mm çaplı deliklerin kontur ölçümü

çapraz kol, kod SPM-1000-LP (opsiyonel), prob dahil değildir



delik çapının radyal yönde ölçümü

FEATURES

- The X, Y, and Z are all of precision grade granite air-floating guides, the three axis have the same temperature effect, ensure the accuracy of the measuring machine
- X guide rail adopts precision "L" beam, light weight, low center of gravity, strong bidirectional rigidity and small dynamic error, ensure the stability of the measuring machine
- High-quality aluminum alloy frame, key components are made of aviation aluminum alloy
- Equipped with precision air source filter
- Using precision grating system
- Equipped with a probe system, meet various measurement needs



SPECIFICATION

Code	ISC-575	ISC-7107	ISC-10128	ISC-10158	ISC-10208
Measuring range	500×700×500mm	700×1000×700mm	1000×1200×800mm	1000×1500×800mm	1000×2000×800mm
Resolution	0.1μm				
Accuracy	$\pm(1.7+L/300)\mu\text{m}^*$	$\pm(1.9+L/300)\mu\text{m}^*$	$\pm(2.3+L/300)\mu\text{m}^*$		
Probe error	$\pm 1.7\mu\text{m}$	$\pm 1.9\mu\text{m}$	$\pm 2.3\mu\text{m}$		
Temperature	20±2°C				
Humidity	40%~60%				
Power	220V±10%, 50Hz ***				
Air supply pressure	6~10bar				
Max. load	800kg	1000kg	1500kg	2000kg	2500kg
Dimension (L×W×H)	1330×1820×2640mm	1530×2120×3000mm	1960×2660×3370mm	1960×2960×3370mm	1960×3460×3140mm

Code	ISC-121510	ISC-122010	ISC-152012	ISC-152512	ISC-153012
Measuring range	1200×1500×1000mm	1200×2000×1000mm	1500×2000×1200mm	1500×2500×1200mm	1500×3000×1200mm
Resolution	0.1μm				
Accuracy	$\pm(2.7+L/300)\mu\text{m}^*$		$\pm(3.4+L/300)\mu\text{m}^*$		
Probe error	$\pm 2.7\mu\text{m}$		$\pm 3.4\mu\text{m}$		
Temperature	20±2°C				
Humidity	40%~60%				
Power	220V±10%, 50Hz ***				
Air supply pressure	6~10bar				
Max. load	2000kg	3000kg	3000kg	3000kg	5000kg
Dimension (L×W×H)	2160×2960×3740mm	2160×3460×3740mm	2460×3460×3940mm	2460×3960×3940mm	2460×4460×3940mm

*** Add "-U" on code No. when power supply is 110V, 50/60Hz

* "L" is the measuring length

CONTROL SYSTEM

- Double computer control systems
- Three working modes: trigger measurement, digitization, and scanning measurement modes including SP25M, SP80, and SP600
- 21 hardware compensation functions for mechanical errors
- With three-axis linkage stem and multi-function keyboard control box

AC-DMIS SOFTWARE

- Can measure straightness, flatness, circularity, cylindricity, profile, perpendicularity, parallelism, angularity, coaxiality, concentricity, symmetry, position, runout error, circular runout and total runout
- Can convert the measured elements
- Can realize seamless switching between manual measurement and parameterized feature measurement
- Can import and convert CAD model (SAT, IGES, STEP)
- Can select multi language, metric and inch, polar and straight coordinate system
- Have multiple export ways: word、excel (microsoft office or open office)、bmp、pdf、iges、step、dat、text file

PROBE (included) SPECIFICATION

Probe head	Angular movement with horizontal axis	0°~105° in 7.5 steps
	Angular movement with vertical axis	±180° in 7.5 steps
	Number of positions	720
	Probe mounting	M8
	Max. output torque	0.45N.m
	Max. extension length	300mm
	Weight	645g
Probe	Detect direction	±X, ±Y, ±Z
	Styli mounting	M2
	Rating life	>1000,000 times
	Weight	22g

STANDARD DELIVERY

Main unit		1 pc
Probe system	Probe head *	1 pc
	Probe *	1 pc
	Styli **	1 set
Calibration system	Datum sphere (Ø25mm)	1 pc
	Pivot pillar	1 pc
Computer system	Computer	1 pc
	Printer	1 pc
Software		1 pc

* The probe head and probe are Renishaw brand

** The styli system includes styli, extension and center base

STYLI (included) SPECIFICATION

Code	Material	Ball diameter	Length	Stem diameter	Effective working length	Quantity
PS48R	ruby ball / tungsten carbide stem	SØ1mm	20mm	Ø0.8mm	12.5mm	1 pc
PS2R		SØ2mm		Ø1.4mm	14mm	1 pc
PS16R		SØ3mm		Ø1.5mm	17.5mm	1 pc
PS17R		SØ4mm		Ø1.5mm	20mm	1 pc
PS8R		SØ2mm	10mm	Ø1.0mm	6mm	4 pc
PS1R		SØ3mm		Ø1.5mm	7.5mm	1 pc

EXTENSION (included) SPECIFICATION

Code	Material	Stem diameter	Length	Quantity
SE7	stainless steel stem	Ø3mm	5mm	1 pc
SE4			10mm	1 pc
SE5			20mm	1 pc
SE6			30mm	1 pc

CENTER BASE(included) SPECIFICATION

Code	Material	Dimension	Length	Quantity
SC2	stainless steel stem	7mm	7.5mm	1 pc



KABLOSUZ VERİ TRANSFER SİSTEMİ

- İletim mesafesi, 10 metredir
- Veri iletimi için tuşa basılır
- 7315-2** EXCEL yönlü giriş yazılımı ile birlikte verilir, her ölçü yalnızca belirtilen alanda görüntülenir



iletici
7315-21



alıcı
7315-2



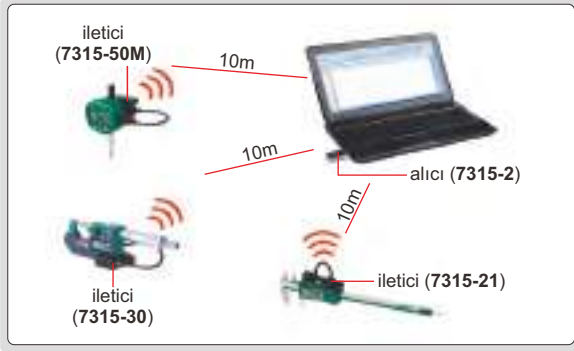
alıcı
7315-3

Kod	Açıklama	Ürüne takılır	Not
7315-2	çok kanallı alıcı		- Maksimum 8 iletici ile bağlıdır ve her birinin ayrı tanımlama kodu söz konusudur - Yazılım ile birlikte temin edilen klavye biçimine dönüştürülen metin formatlı sanal bağlantı noktası (veriler klavye sinyalinin alan herhangi bir yazılıma veya EXCEL, WORD'e aktarılabilir) - EXCEL yazılımını kullanarak farklı ölçümlerin ölçüm verileri belirtilen alana aktarılabilir
7315-3	tek kanallı alıcı		- Yalnızca 1 verici ile bağlanır ve verici gerektiğinde değiştirilebilir - HID klavye aygıtı ile tanımlanır, Ayrıca sürücü ve yazılım yüklemesine gerek yoktur, - Veri; Excel, Word, txt ve diğer dosya türlerine aktarılabilir (klavye giriş verisi olarak tanımlanan aktarım tuşuna ve ya 12,345 gibi sadece giriş tuşuna basılır) - Klavye sinyalinin algılayabilen tüm yazılımlarla uyumludur,
7315-21	dijital kumpaslar için verici		dijital kumpas ve derinlik kumpası
7315-22	büyük dijital kumpaslar için verici		geniş dijital kumpas (aralık≤1000mm) ve dijital yükseklik kumpası
7315-30	dijital mikrometreler için verici		dijital mikrometre
7315-50M	dijital komparatör saatleri için verici		dijital komparatör, dijital kalınlık kumpası ve dijital iç/dış kumpası
7315-60	yüksek hassasiyetli dijital göstergeler için verici		2140-6 ve 2133 serili yüksek hassasiyetli dijital kumpas 3350 serili yüksek hassasiyetli dijital komparatör saati

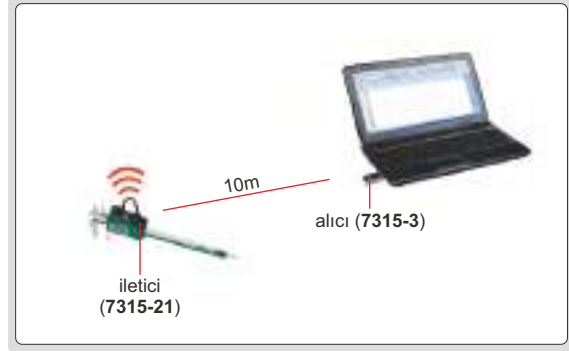
Devam ediyor

Önceki sayfanın devamı

7315-2 uygulaması (çok kanallı)



7315-3 uygulaması (tek kanallı)



Excel giriş yazılımı (7315-2'de yer alır), uygulama örneği 1

Kumpas ekranı, B4-B9'da ayarlanır, kumpas okuyucuları B4,B5...B9'da görüntülenir,
Mikrometre ekranı, C4-C9'da ayarlanır ve okuyucuları C4,C5...C9'da görüntülenir,
Yükseklik ölçer ekranı, D4, D9'da ayarlanır,
Yükseklik ölçer okuyucuları, D4,D5...,D9'da görüntülenir

Project	Length	Width	Height
Dimension and Tolerance	10±0.05	24±0.01	10±0.05±0.06
Measuring tool	Caliper	Micrometer	Height gage
1	50.02	24.004	9.98
2	50.01	24.019	10.01
3	49.99	23.996	10.02
4	50.00	23.995	9.99
5	50.04	24.000	10.01
6	Channel 1	Channel 2	Channel 3

İş parçalarının
seri numarası

Bir sonraki veri görüntüleme
alanı yeşil renkte gösterilir,

Excel giriş yazılımı (7315-2'de yer alır), uygulama örneği 2

Mikrometre ekranı, B4-C9'da ayarlanır, veri girdileri soldan sağa yazılır,
mikrometre okuyucuları B4,C4, B5,C5...B9, C9'da görüntülenir,
Kumpas ekranı, D4-D9'da ayarlanır ve okuyucuları D4,D5...,D9'da görüntülenir,
Derinlik ölçer ekranı, E4,E9'da ayarlanır,
derinlik ölçer okuyucuları, E4,E5...,E9'da görüntülenir

Project	External diameter1	External diameter2	Length	Depth
Dimension and Tolerance	Φ23±0.01±0.02	Φ21±0.01±0.02	50±0.04	28±0.05
Measuring tool	Micrometer	Micrometer	Caliper	Depth gage
1	23.010	21.008	49.98	28.01
2	23.010	21.000	49.98	27.98
3	22.999	21.000	50	28
4	23.007	20.998	50	28
5	23.000	20.985	50.00	28.01
6	23.005	Channel 1	Channel 2	Channel 3

İş parçalarının
seri numarası

Bir sonraki veri görüntüleme
alanı yeşil renkte gösterilir,

VERİ ÇIKIŞ KABLOLARI (KLAVYE FORMATI)



7302-40M

uygulama



- HID klavye aygıtı ile tanımlanır, ayrıca sürücü ve yazılım yüklemesine gerek yoktur,
- Veri; Excel, Word, txt ve diğer dosya türlerine aktarılabilir (klavye giriş verisi olarak tanımlanan aktarım tuşuna ve ya 12,34' gibi sadece giriş tuşuna basılır)
- Klavye sinyalini algılayabilen tüm yazılımlarla uyumludur,
- Opsiyonel aksesuar: ayak pedalı (kod: 7304-2), bağlantı göbeği (kod: 7324-HUB, 7324-HUB7) uzatma kablosu (kod: 7325-ADD5, 7325-ADD10)

Devam ediyor



KABLOSUZ VERİ TRANSFER SİSTEMİ

- İletim mesafesi, 10 metredir
- Veri iletimi için tuşa basılır
- 7315-2** EXCEL yönlü giriş yazılımı ile birlikte verilir, her ölçü yalnızca belirtilen alanda görüntülenir



iletici
7315-21



alıcı
7315-2



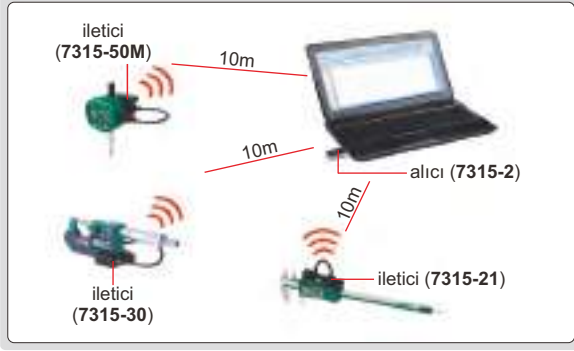
alıcı
7315-3

Kod	Açıklama	Ürüne takılır	Not
7315-2	çok kanallı alıcı		- Maksimum 8 iletici ile bağlıdır ve her birinin ayrı tanımlama kodu söz konusudur - Yazılım ile birlikte temin edilen klavye biçimine dönüştürülen metin formatlı sanal bağlantı noktası (veriler klavye sinyalinin alan herhangi bir yazılıma veya EXCEL, WORD'e aktarılabilir) - EXCEL yazılımını kullanarak farklı ölçümlerin ölçüm verileri belirtilen alana aktarılabilir
7315-3	tek kanallı alıcı		- Yalnızca 1 verici ile bağlanır ve verici gerektiğinde değiştirilebilir - HID klavye aygıtı ile tanımlanır, Ayrıca sürücü ve yazılım yüklemesine gerek yoktur, - Veri; Excel, Word, txt ve diğer dosya türlerine aktarılabilir (klavye giriş verisi olarak tanımlanan aktarım tuşuna ve ya 12,34$\angle$ gibi sadece giriş tuşuna basılır) - Klavye sinyalinin algılayabilen tüm yazılımlarla uyumludur,
7315-21	dijital kumpaslar için verici		dijital kumpas ve derinlik kumpası
7315-22	büyük dijital kumpaslar için verici		geniş dijital kumpas (aralık$\leq$1000mm) ve dijital yükseklik kumpası
7315-30	dijital mikrometreler için verici		dijital mikrometre
7315-50M	dijital komparatör saatleri için verici		dijital komparatör, dijital kalınlık kumpası ve dijital iç/dış kumpası
7315-60	yüksek hassasiyetli dijital göstergeler için verici		2140-6 ve 2133 serili yüksek hassasiyetli dijital kumpas 3350 serili yüksek hassasiyetli dijital komparatör saati

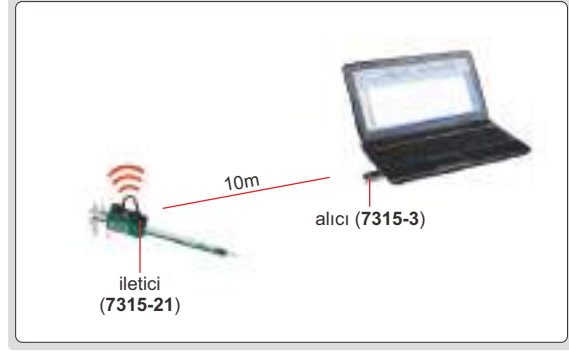
Devam ediyor

Önceki sayfanın devamı

7315-2 uygulaması (çok kanallı)



7315-3 uygulaması (tek kanallı)



Excel giriş yazılımı (7315-2'de yer alır), uygulama örneği 1

Kumpas ekranı, B4-B9'da ayarlanır, kumpas okuyucuları B4,B5...B9'da görüntülenir,
Mikrometre ekranı, C4-C9'da ayarlanır ve okuyucuları C4,C5...C9'da görüntülenir,
Yükseklik ölçer ekranı, D4, D9'da ayarlanır,
Yükseklik ölçer okuyucuları, D4,D5...,D9'da görüntülenir

Project	Length	Width	Height
Dimension and Tolerance	10±0.05	24±0.01	10±0.05±0.06
Measuring tool	Caliper	Micrometer	Height gage
1	50.02	24.004	9.98
2	50.01	24.019	10.01
3	49.99	23.996	10.02
4	50.00	23.995	9.99
5	50.04	24.000	10.01
6	Channel 1	Channel 2	Channel 3

İş parçalarının
seri numarası

Bir sonraki veri görüntüleme
alanı yeşil renkte gösterilir,

Excel giriş yazılımı (7315-2'de yer alır), uygulama örneği 2

Mikrometre ekranı, B4-C9'da ayarlanır, veri girdileri soldan sağa yazılır,
mikrometre okuyucuları B4,C4, B5,C5...B9, C9'da görüntülenir,
Kumpas ekranı, D4-D9'da ayarlanır ve okuyucuları D4,D5...,D9'da görüntülenir,
Derinlik ölçer ekranı, E4,E9'da ayarlanır,
derinlik ölçer okuyucuları, E4,E5...,E9'da görüntülenir

Project	External diameter1	External diameter2	Length	Depth
Dimension and Tolerance	Φ23±0.01±0.02	Φ21±0.01±0.02	50±0.04	28±0.05
Measuring tool	Micrometer	Micrometer	Caliper	Depth gage
1	23.010	21.008	49.98	28.01
2	23.010	21.000	49.98	27.98
3	22.999	21.000	50	28
4	23.007	20.998	50	28
5	23.000	20.985	50.00	28.01
6	23.005	Channel 1	Channel 2	Channel 3

İş parçalarının
seri numarası

Bir sonraki veri görüntüleme
alanı yeşil renkte gösterilir,

VERİ ÇIKIŞ KABLOLARI (KLAVYE FORMATI)



7302-40M

uygulama



- HID klavye aygıtı ile tanımlanır, ayrıca sürücü ve yazılım yüklemesine gerek yoktur,
- Veri; Excel, Word, txt ve diğer dosya türlerine aktarılabilir (klavye giriş verisi olarak tanımlanan aktarım tuşuna ve ya 12,34' gibi sadece giriş tuşuna basılır)
- Klavye sinyalini algılayabilen tüm yazılımlarla uyumludur,
- Opsiyonel aksesuar: ayak pedalı (kod: 7304-2), bağlantı göbeği (kod: 7324-HUB, 7324-HUB7) uzatma kablosu (kod: 7325-ADD5, 7325-ADD10)

Devam ediyor

OPTİK ÖLÇÜM SİSTEMİ

**KALİBRASYON
SERTİFİKASI**



koaksiyal ışıklı
lens (opsiyonel,
fabrikada kurulmalı)



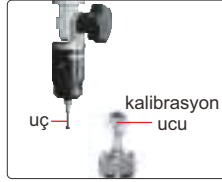
CD yazılım
(dahil)



VIDEO

STANDART TESLİMAT

Ana ünite	1 parça
Bilgisayar	1 parça
Kalibrasyon cam mastarı	1 parça
Kil	1 parça
Ayak pedali	1 parça
Kılıf	1 parça



prob (opsiyonel) Ø2mm ve
Ø3mm prob uçları, Ø25mm
kalibrasyon ucu içerir,
ölçüm hassasiyeti 10µm'dir



ISD-V250A

bilgisayar dahildir

ÖZELLİK

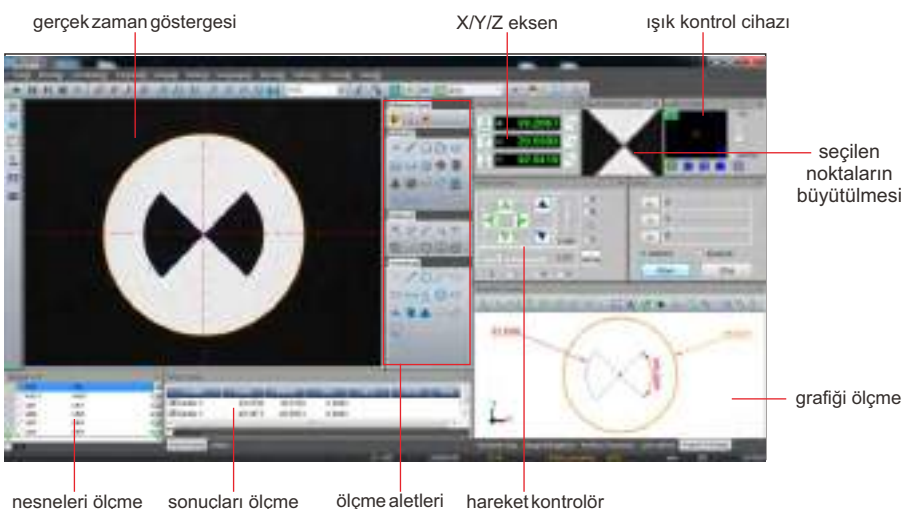
Kod	ISD-V150A	ISD-V250A	ISD-V300A	ISD-V400A
Ölçüm aralıkları (X×Y×Z)	150×100×200mm	250×150×200mm	300×200×200mm	400×300×200mm
Zemin boyutu	354×228mm	450×280mm	500×330mm	606×466mm
Cam boyutu	210×160mm	306×196mm	350×250mm	450×350mm
X/Y/Z eksen çözünürlüğü	0,5µm			
X/Y eksen doğruluğu	≤(3,5+L/100)µm (L, mm cinsinde uzunluk birimidir)			
X/Y eksen tekrarlılığı	2µm			
Objektif	0,7X~4,5X (yakınlaştırma)			
Çalışma mesafesi	92mm			
Büyütme	33X~195X (on 19" monitör)			
Kamera	1/3" renk CCD, 0,3M pixel			
Aydınlatma	ayarlanabilir LEDli yüzey ve kontur			
İş parçasının max. yüksekliği	200mm			
İş parçasının max. ağırlığı	20kg			
İşletim sistemi	Windows 7/8/10			
Sürme yöntemi	manuel			
Güç kaynağı	110/220V, 50/60Hz			
Boyut (LxWxH)	560×540×850mm	760×600×900mm	760×600×900mm	970×670×940mm
Ağırlık	100kg	120kg	140kg	240kg

YAZILIM (DAHİL)

■ Detay için 327~328 Sayfaya bakınız

OPSİYONEL AKSESUAR

0,5X yardımcı objektif	Kod: ISD-V-OB05X Çalışma mesafesi: 175mm Büyütme: 16,5~97,5X (on 19" monitör)
2X yardımcı objektif	Kod: ISD-V-OB2X Çalışma mesafesi: 36mm Büyütme: 66~390X (on 19" monitör)
Prob	Kod: ISD-V-PROBE Ø2mm ve Ø3mm prob ucu içerir Ø25mm kalibrasyon ucu
Koaksiyal ışıklı lens ile optik ölçme sistemi (bilgisayar ile)	Kod: ISD-V150ACL, ISD-V250ACL, ISD-V300ACL, ISD-V400ACL
Ofis yazılımı	Kod: 7313-OFFICE



TAŞINABİLİR LEEB SERTLİĞİ TEST CİHAZI (YÜKSEK DOĞRULUK) KOD HDT-L410

**KALİBRASYON
SERTİFİKASI**

BİLGİ
ÇIKIŞI

YÜKSEK
DOĞRULUK

DL PROB
OPSİYONELDİR

- Metal gövde
- HD TFT 320×320 ekran
- D probu
- Leeb (HLD) bağlantılıdır ve Vickers (HV), Brinell (HB), Rockwell (HRC, HRA ve HRB), Shore (HS) ve çekme dayanımına (SGM) dönüştürülmüştür
- DÖRT EKRAN MODU
- Otomatik yön düzeltme
- Tolerans test etme
- Otomatik kapanma, otomatik istatistik hesaplama
- Çift değerli ekran, hem Leeb hem de diğer dönüşüm değerlerini gösterir
- Her biri 100 ölçüm verisi içeren 31 dosya kaydedilebilir
- PC yazılımına USB veya Bluetooth 2.0 ile bağlandı
- Yazıcıya bluetooth ile bağlanır
- Çalışma sıcaklığı: -20°C~70°C
- ASTM A956, DIN 50156, GB/T 17394 uyarınca yürütülmektedir



yazılım CD'si
(dahil)



sertlik master
bloğu D (dahil)



wireless yazıcı
(opsiyonel)



küçük destek
halkası (dahil)



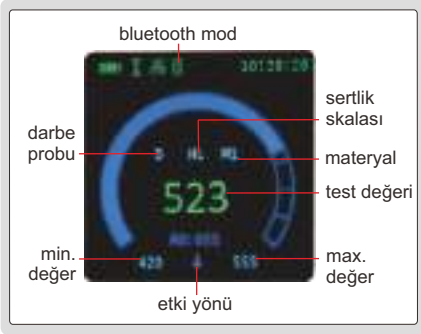
VIDEO



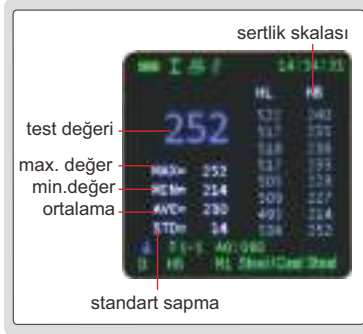
DL prob kuruludur
(opsiyonel)



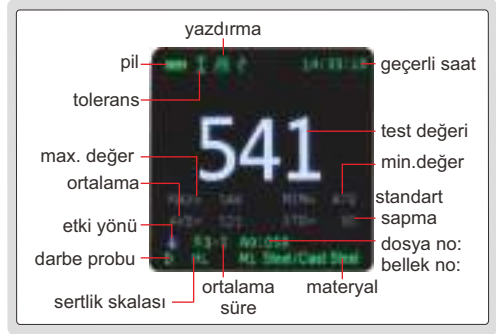
dinamik halka ekran



istatistik ekranı



düzenli ekran

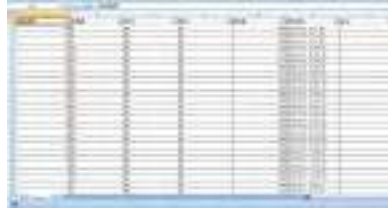


Yazılım (dahil), belleği bilgisayara yükleyin, yazdırın ve EXCEL'e gönderin

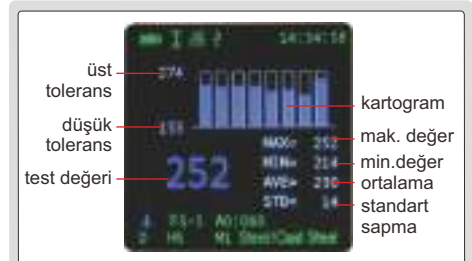
USB kablo veya Bluetooth ile
belleği PC yazılımına yükleyin



saklanan verileri EXCEL'e gönder



histogram ekran



ÖZELLİK

Çözünürlük	1HLD; 1HV; 1HB; 0,1HRC; 0,1HRB; 0,1HRA; 0,1HS; 1SGM	
Doğruluk	±4HLD (HLD=800 olduğunda)	
Çıkış	USB ve bluetooth	
Uygulanabilir parçalar	minimum ağırlık	5kg (doğrudan ölçüm)
		2kg (katı destek üstünde)
		0,05kg (pleyt üstünde eşleme)
	minimum kalınlık: 5mm	
	minimum kavisli yüzey yarıçapı: 30mm	
Güç kaynağı	maksimum pürüzlülük (Ra): 2µm	
	dahili 3,7V şarj edilebilir pil	
Boyut	148×44×22mm	
Ağırlık	115g	

STANDART TESLİMAT

Ana ünite	1 parça
Sertlik testi blok D	1 parça
Küçük destek halkası	1 parça
Temizleme fırçası	1 parça
AC/DC adaptörü	1 parça
Yazılım diski ve USB kablo	1 parça

OPSİYONEL AKSESUAR

Yazıcı	HDT-L410-PRINTER
Destek halkaları	ayrıntılara bakınız
Sertlik testi blok D	HDT-B-HLD3
DL probu	HDT-L410-DL

IP67
SU GEÇİRMEZ



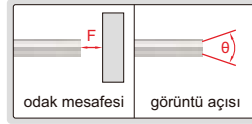
VIDEO

BÜKÜLMEZ BOROSKOP

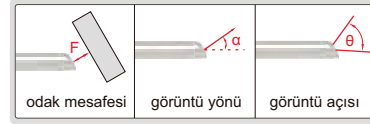


ISV-1H4300

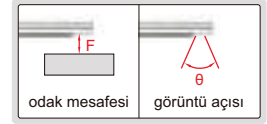
- Odak mesafesi: 2mm
görüntü derinliği: 5-100mm
- Toza/suya dayanıklı: IP67
- Lens, -10°C~100°C kadar sıvı
haldeyken kullanılabilir



yan görünüm 0°



yan görünüm 30° ve 70°



yan görünüm 90°

ÖZELLİK

Kod	Uzunluk (L)	Yan görünüm (α)	Çap (D)	Görüntü açısı (θ)
ISV-1H4170	174mm	0°	4mm	≥60°
ISV-1H4173	174mm	30°		
ISV-1H4177	174mm	70°		
ISV-1H4179	166mm	90°		
ISV-1H4300	302mm	0°		
ISV-1H4303	302mm	30°		
ISV-1H4307	302mm	70°		
ISV-1H4309	297mm	90°		

Kod	Uzunluk (L)	Yan görünüm (α)	Çap (D)	Görüntü açısı (θ)
ISV-1H6200	209mm	0°	6mm	≥70°
ISV-1H6203	209mm	30°		
ISV-1H6207	209mm	70°		
ISV-1H6209	166mm	90°		
ISV-1H6320	328mm	0°		
ISV-1H6323	328mm	30°		
ISV-1H6327	328mm	70°		
ISV-1H6329	330mm	90°		

OPSİYONEL AKSESUAR

LED ışık tutacağı	ISV-1HLED
Ayarlanabilir LED ışık kaynağı	ISV-1LED1
Kamera	ISV-2CAM



LED ışık tutacağı
(opsiyonel)



ayarlanabilir LED ışık
kaynağı (opsiyonel)



kamera (opsiyonel)

PORTATİF ROCKWELL SERTLİK ÖLÇME CİHAZI KOD ISHR-P151

- ISO 6508, ASTM18 Standartlarına uygundur

ÖZELLİK

Sertlik skalası	HRA, HRB, HRC, HRD, HRF, HRG
İlk test kuvveti	10kg
Test yükü	60kg, 100kg, 150kg
Yük kontrol	manuel
Min. Okuma	1HR
Maks. iş parçası kalınlık	25mm
Maks. iş parçası derinlik	25mm
Boyut	240×70×160mm
Ağırlık (tabanla birlikte)	2,5kg

STANDART TESLİMAT

Ana ünite	1 adet
Elmas işaretleyici uç	1 adet
Ø1,5875mm karbürlü işaretleyici uç	2 adet
Sertlik test bloğu HRB88~95	1 adet
Sertlik test bloğu HRC60~65	1 adet
Sertlik test bloğu HRC20~30	1 adet
Düz uç	1 adet
V-tipi uç	1 adet
Taban	1 adet
Uç uzatma	1 adet
Büyüteç	2 adet



PORTATİF LEEB SERTLİK ÖLÇME CİHAZI KOD ISH-SPHD

**KALİBRASYON
SERTİFİKASI**

**BİLGİ
ÇIKIŞI**



CD yazılım
(dahil)



USB
girişi



- D probu
- Leeb (HLD), dönüştürülmüş sertlik, materyal, darbe yönü, test adetleri, ortalama değer, sapma, zaman
- Otomatik yön düzeltme
- Bluetooth ile yazıcıya bağlanır
- USB giriş ile bilgisayara bağlanır
- 500 test sonucuna kadar hafızaya kaydedebilir
- ASTM A 956 standardına uygundur

D PROBU İÇİN SERTLİK ARALIĞI VE UYGULANABİLİR MATERYAL

Materyal	HLD	HV	HB	HRC	HRB	HS
Çelik ve döküm çelik	300-900	81-955	81-654	20-68	38-100	32-100
Takım çelik	300-840	80-898		20-67		
Paslanmaz çelik	300-800	85-802	85-655		46-101	
Döküm demir	360-650		93-334			
Döküm alüminyum alaşım	170-570		19-164		23-84	
Pirinç	200-550		40-173		13-95	
Brunz	300-700		60-290			
Bakır	200-690		45-315			



yazıcı (dahil)



küçük destek halkası
(dahil)



sertlik ölçüm bloğu
D (dahil)

ÖZELLİK

Min. okuma	1HLD; 1HV; 1HB; 0,1HRC; 0,1HRB; 1HS	
Doğruluk	±6HLD (HLD=800 olduğunda)	
Çıkış	USB ve bluetooth	
Uygulanabilir parçalar	minimum ağırlık	5kg (direk ölçüm) 2kg (sağlam bir destek üzerinde) 0,1kg (pleyt üzerinde bağlı)
	minimum kalınlık: 5mm	
	kırımlı yüzeyin minimum yarıçapı: 30mm	
	maksimum pürüzlülük (Ra): 1,6µm	
Güç kaynağı	şarj edilebilir pil	
Boyut	147×35×22mm	
Ağırlık	65g	

STANDART TESLİMAT

Ana ünite	1 adet
Yazıcı	1 adet
Sertlik master bloğu D	1 adet
Küçük destek halkası	1 adet
Temizleme fırçası	1 adet
AC/DC adaptörü	1 adet
USB kablo ve yazılım disc	1 adet

OPSİYONEL AKSESUAR

Temas maddesi	ISH-COUPPLANT
Destek halkaları	detaylara bakınız
Sertlik test bloğu D	ISH-BHLD



- Leeb (HL) temellidir; Vickers (HV); Brinell (HB); Rockwell (HRC ve HRB); Shore (HS) ve gerilme direnci'ne (MPa) dönüştürülebilir
- Bluetooth ile yazıcıya bağlanır
- USB giriş ile bilgisayara bağlanır
- 800 test sonucuna kadar hafızaya kaydedebilir
- Alt ve üst limitler muhakeme ile belirlenebilir
- Dokunmatik ekran; ışıklı geniş ekran
- Diller: İngilizce; Çince; İtalyanca; Almanca; Fransızca ve Portekizce
- Otomatik kapanma
- ASTM A 956 standardına uygundur

CD yazılım
(dahil)sertlik ölçüm bloğu
D (dahil)küçük destek
halkası (dahil)

yazıcı (dahil)

ÖZELLİK

Min. okuma	1HL; 1HV; 1HB; 0,1HRC; 0,1HRB; 1HS; 1MPa
Doğruluk	±6HL (when HL=800)
Görüntü	Leeb(HL); dönüştürülmüş sertlik; materyal; darbe yönü; test sayıları; ortalama değer; sapma; zaman
Çıkış	bluetooth ve USB
Güç kaynağı	dahili şarj edilebilir pil
Boyut	135×83×24mm
Ağırlık	350g

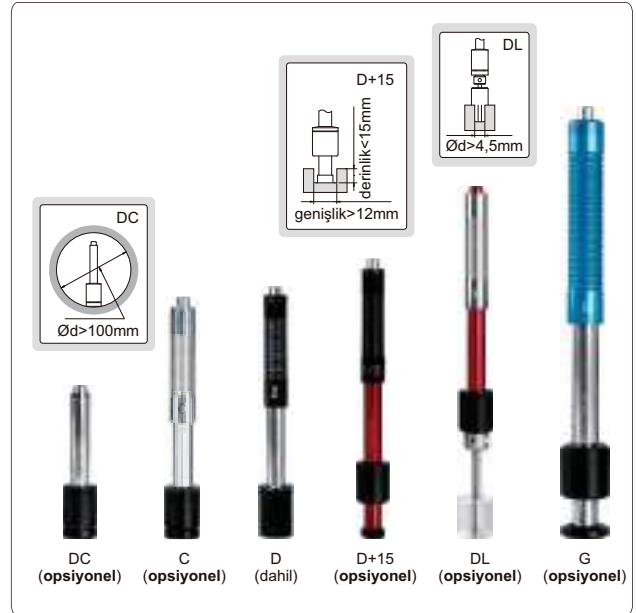
STANDART TESLİMAT

Ana ünite	1 adet
D probu	1 adet
Yazıcı	1 adet
Sertlik ölçüm bloğu D	1 adet
Küçük destek halkası	1 adet
Temizleme fırçası	1 adet
AC/DC adaptör	1 adet
USB kablo ve yazılım disk	1 adet
Dokunmatik ekran için kalem	1 adet

OPSİYONEL AKSESUAR

DC probu	ISH-SPHA-DC
C probu	ISH-SPHA-C
D+15 probu	ISH-SPHA-D15
DL probu	ISH-SPHA-DL
G probu	ISH-SPHA-G
D sertlik ölçüm bloğu *	ISH-BHLD
G sertlik ölçüm bloğu *	ISH-BHLG
Temas maddesi	ISH-COUPPLANT
Destek halkaları	detaylara bakınız

* Sertlik master bloğu G (ISH-BHLG) darbe probu (ISH-SPHA-G) içindir, Sertlik master bloğu D (ISH-BHLD) diğer bütün darbe problemleri içindir



UYGULANABİLİR İŞ PARÇASI

Darbe probu	DC	C	D	D+15	DL	G
Aplikasyon	küçük boşlukların iç duvarı	küçük veya ince iş parçası; kaplama katmanı	genel kullanım	derin oluk	dar yarık veya küçük delik	döküm ve dövme iş parçası
İş parçasının maksimum pürüzlülüğü (Ra)	1,6µm	0,4µm	1,6µm	1,6µm	1,6µm	7µm
İş parçasının minimum ağırlığı	direk ölçüm	5kg	1,5kg	5kg	5kg	15kg
	katı destek üstünde	2kg	0,5kg	2kg	2kg	5kg
	pleyt üstünde eşleme	0,1kg	0,02kg	0,1kg	0,1kg	0,5kg
İş parçasının minimum kalınlığı	5mm	1mm	5mm	5mm	5mm	10mm

PORTATİF LEEB SERTLİK ÖLÇME CİHAZI KOD ISH-PHB

- Leeb (HLD) temellidir, Vickers (HV), Brinell (HB), Rockwell (HRC ve HRB), Shore (HS) ve gerilme direnci'ne (MPa) dönüştürülebilir
- 99 ölçüm değeri kaydedilebilir
- Ortalama değeri elde etmek için ölçüm aralığı ayarlanır (1-9)
- Bluetooth ile yazıcıya bağlanır
- Otomatik kapanma
- ASTM A 956 standardına uygundur



küçük destek halkası (dahil)



sertlik ölçüm bloğu D (dahil)



kablolu yazıcı (opsiyonel)

ÖZELLİK

Min. okuma	1HLD; 1HV; 1HB; 0,1HRC; 0,1HRB; 1HS; 1MPa		
Doğruluk	±6HLD (HLD=800 olduğunda)		
Görüntü	Leeb (HLD); dönüştürülmüş sertlik; materyal; darbe yönü; test adetleri; ortalama değer; sapma; zaman		
Çıkış	bluetooth		
Uygulanabilir parçalar	minimum ağırlık	5kg	
		2kg (sağlam bir destek üzerinde)	
		0,1kg (pleyt üzerinde bağlı)	
	minimum kalınlık: 5mm		
	kıvrımlı yüzeyin minimum yarıçapı: 30mm		
	maksimum pürüzlülük (Ra): 1,6µm		
Güç kaynağı	3x AAA pil		
Boyut	150×84×28mm		
Ağırlık	200g		

STANDART TESLİMAT

Ana ünite	1 adet
D probu	1 adet
D sertlik	1 adet
Küçük destek halkası	1 adet
Temizleme fırçası	1 adet

OPSİYONEL AKSESUAR

Kablolu yazıcı	ISH-DS-PRINTER
Temas maddesi	ISH-COUPPLANT
Destek halkaları	detaylara bakınız
Sertlik test bloğu D	ISH-BHLD

D PROBU İÇİN SERTLİK ARALIĞI VE UYGULANABİLİR MATERYAL

Materyal	HLD	HV	HB	HRC	HRB	HS	Gerilme direnci (MPa)
Çelik ve döküm çelik	300-900	81-955	81-654	20-68	38-100	32-100	375-2639
Takım çelik	300-840	80-898		20-67			
Paslanmaz çelik	300-800	85-802	85-655		46-101		
Döküm demir	360-650		93-334				
Döküm alüminyum alaşım	170-570		19-164		23-84		
Pirinç	200-550		40-173		13-95		
Brunz	300-700		60-290				
Bakır	200-690		45-315				

- Hassasiyet: 0,01mm/0,0005"
- Tuşlar: açma/kapama, sıfırlama, mm/inch
- Otomatik kapatma, dijital üniteyi hareket ettirerek açma
- CR2032 Lityum Pil, bilgi çıkışı
- DIN862 Standardına uygundur
- Paslanmaz çelikten imal edilmiştir
- Seçmeli aksesuar: veri çıkış kablosu
(kod 7306-20, 7302-SPC5A/SPC5B, 7305-SPC2A, 7305-A01/A02)

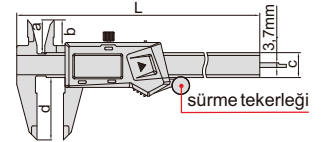
DİJİTAL KUMPAS (STANDART MODEL)



1108-150

(mm)

Kod	Ölçüm aralığı	Doğruluk	Sürme tekerleği	L	a	b	c	d
1108-150 *	0-150mm/0-6"	±0,02mm	dahil	236	21	16	16	40
1108-200 *	0-200mm/0-8"	±0,03mm	dahil	286	24	19	16	50
1108-250 *	0-250mm/0-10"	±0,03mm	dahil	350	25	20,5	16	60
1108-300 *	0-300mm/0-12"	±0,03mm	dahil	400	25	20,5	16	60
1108-150W *	0-150mm/0-6"	±0,02mm	hariç	236	21	16	16	40
1108-200W *	0-200mm/0-8"	±0,03mm	hariç	286	24	19	16	50
1108-250W *	0-250mm/0-10"	±0,03mm	hariç	350	25	20,5	16	60
1108-300W *	0-300mm/0-12"	±0,03mm	hariç	400	25	20,5	16	60



* DKD (Alman kalibrasyon hizmet birimi) tarafından izlenebilir muayene denetleyici sertifikası ile birlikte verilir