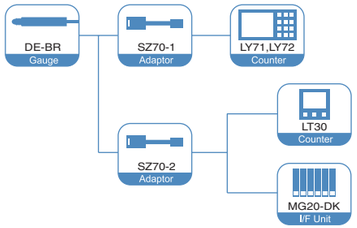
DE

DE-BR Series

High precision digital gauge for submicron position detection and measuring

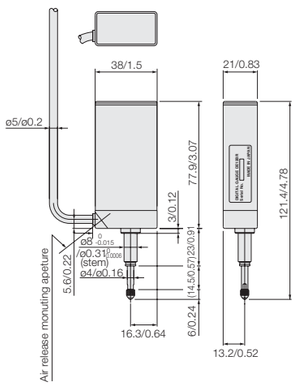
- Magnetic principle
- High accuracy: 1 µm
- High resolution: 0.1 µm
- Measuring range: 12 mm / 0.47" and 30 mm / 1.18"
- Built-in zero point
- Protective design grade: equivalent to IP64 with optional bellows.



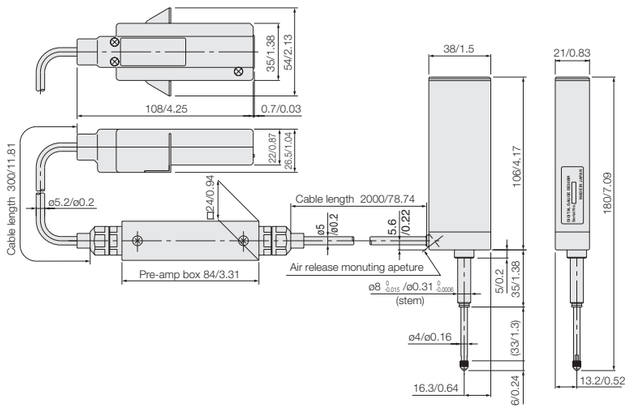
Digital Gauge

Dimensions

DE12BR



DE30BR



Unit : mm/inch

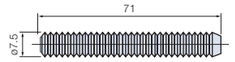
Specifications

Model		DE12BR	DE30BR
Measuring range		12 mm / 0.47"	30 mm / 1.18"
Resolution		0.1 µm	
Accuracy (at 20 ℃ /68 ℉)		1 µm	
Maximam response speed		20 m/min zero point detection mode : 0.15/min	
Measuring force	Upward	0.35 ± 0.2 N	0.5 ± 0.3 N
	Lateral	0.5 ± 0.2 N	0.75 ± 0.3 N
	Downward	0.7 ± 0.2 N	1 ± 0.3 N
Zero point		5 mm/0.2" from feeler end fully retracted	
Protective design grade		Equivalent to IP64 (with optional bellows)	
Mounting stem diameter		ø 8 0 -0.015 mm / ø 0.31" 0 -0.0006"	
Operating temperature		0 ℃ to 50 ℃ / 32 ℉ to 122 ℉	
Storage temperature		-10 ℃ to 60 ℃ / 14 ℉ to 140 ℉	
Power consumption		±5V 100mA	
Cable length		2 m / 6.56'	
Feeler		Feeler tipped with 3 mm dia. carbide ball with M2.5p x 0.45 screw on fitting end (DZ123)	
Mass (excl. cable unit)		Approx.400 g / 14.11 oz	Approx.450 g / 15.87 oz

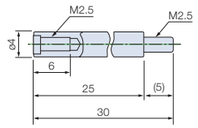
Accessories

DZ301 Bellows set (for DL330B, DE30BR)

Bellows



Extension spindle

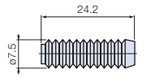


•With the extension spindle attached, the spindle is extended by 25 mm and the measuring force increases by about 0.3 N.

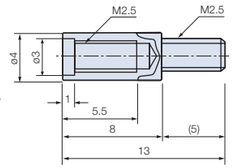
Unit : mm

DZ302 Bellows set (for DE12BR)

Bellows



Extension spindle

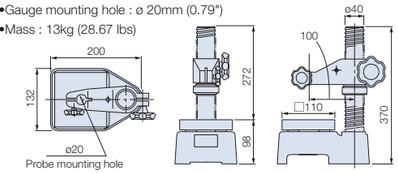


•With the extension spindle attached, the spindle is extended by 8 mm.

Unit : mm

DZ-501 Digital gauging stand (for U60B, DG10B to DG100B, DE-30BR)

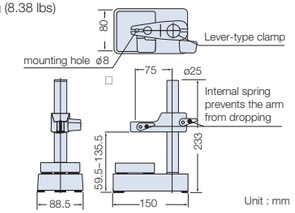
- •Surface plate material : alumina ceramic
- •Surface plate flatness: 2 µm
- •Surface plate size : 110 mm (4.33") x 110 mm (4.33")
- •Maximum workpiece height: approx. 190 mm(7.48")
- •Gauge mounting hole : ø 20mm (0.79")
- •Mass : 13kg (28.67 lbs)



Unit : mm

DZ521 Gauging stand (for DG805BL/810B/810BL, U Series, DE12BR)

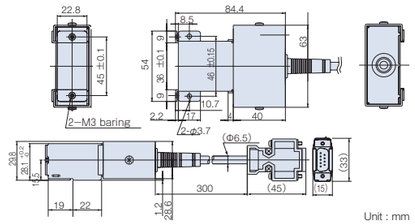
- •Surface plate material : alumina ceramic (dark brown)
- •Surface plate flatness : 2 µm
- •Surface plate size : 80 mm (3.15'') x 80 mm (3.15'')
- •Maximum workpiece height : approx. 105 mm (4.13'')
- •Gauge mounting hole : ø 8 mm (0.31")
- •Mass: 3.8 kg (8.38 lbs)



Unit : mm

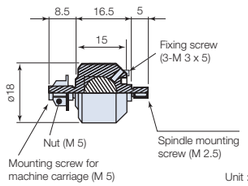
SZ70-1 Adapter

SZ70-1 is required for connecting the following scale units and counters:
Gauge unit : DE-BR Series, DG-B Series
Counter : LH71A, LH72-3, LY71 and LY72
* Adapter DZ51 is also required



Unit : mm

DZ-191 Coupling

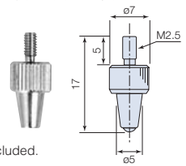


Unit : mm

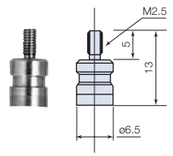
DZ-5100 Feeler set

Note : The four contactors shown at right are included.

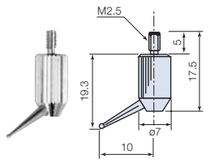
•Plastic ball contact point: ø 3mm nylon ball



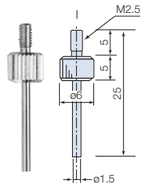
•Flat carbide contact point



•Off-center contact point: ø 1mm steel ball



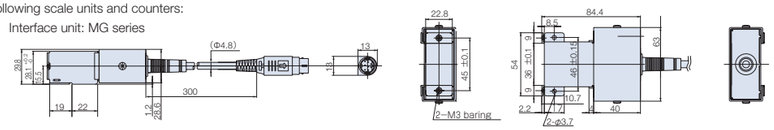
•Pin contact point



Unit : mm

SZ70-2 Adapter

SZ70-2 is required for connecting the following scale units and counters:
Gauge unit: DE-BR Counterunit: LT30 Interface unit: MG series



*Please refer to p54 for the details of the screw.

Unit : mm