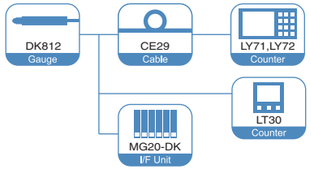
DK DK812A/B Series

High accuracy, rugged gauges.
Suitable for installation on machine.

- Measuring range:12 mm ● Accuracy:1 μm, 1.5 μm ● Resolution: 0.1 μm, 0.5 μm
- Max.respose speed:80m/min (Resolution: 0.1 μm)
  250m/min (Resolution: 0.5 μm)
- Built-in reference point ● Excellent resistance to workshop conditions.
- Robust design for harsh environments.



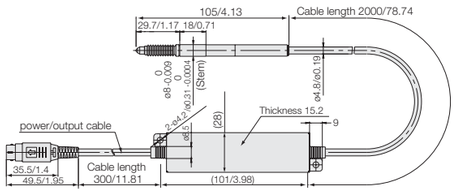
DK812AR/DK812AR5/
DK812BR/DK812BR5

DK812AFLR/DK812AFLR5
DK812ABLR/DK812BFLR5

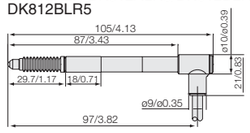
Digital Gauge

Dimensions

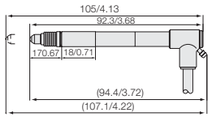
DK812AR/DK812AR5/DK812BR/DK812BR5



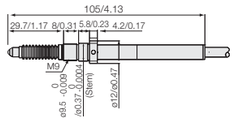
DK812ALR/DK812ALR5/DK812BLR/
DK812BLR5



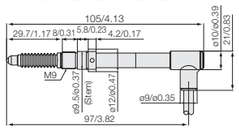
DK812AVR/DK812AVR5
DK812BVR5/DK812BVR5

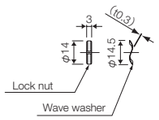


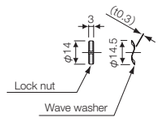
DK812AFR/DK812AFR5
DK812BFR/DK812BFR5



DK812AFLR/DK812AFLR5
DK812ABLR/DK812BFLR5







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

Specifications DK812 Series

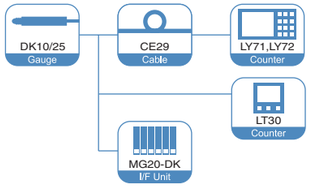
Model	High-resolution models		General-purpose resolution models	
	DK812AR, DK812ALR, DK812AFR, DK812AFLR, DK812AVR	DK812BR, DK812BLR, DK812BFR, DK812BFLR, DK812BVR	DK812AR5, DK812ALR5, DK812AFR5, DK812AFLR5, DK812AVR5	DK812BR5, DK812BLR5, DK812BFR5, DK812BFLR5, DK812BVR5
Output	A/B/Z phase voltage-differential line driver output (compliant with EIA-422)			
Signal pitch	40 μm			
Resolution	0.1 μm		0.5 μm	
Measuring range	12 mm (0.47")			
"Accuracy (at 20℃ / 68℉)"	1 μm		1.5 μm	
Measuring force (at 20℃ / 68℉)	Downward: 0.6 ± 0.3 N Horizontal: 0.5 ± 0.3 N Upward: 0.4 ± 0.3 N Air pressure of 0.03Mpa : 1N or less in all directions Air pressure of 0.04Mpa : 1.7N or less in all directions			
Reference point	One location (at 1 mm/0.04" position of spindle movement)			
Maximum response speed	80 m/min	42 m/min	250 m/min	100 m/min
Air driving	Vacuum suction (DK812AFLR / DK812AFLR5 / DK812BFLR / DK812BFLR5) Pneumatic push type (DK812AVR / DK812AVR5 / DK812BVR / DK812BVR5)			
Vibration resistance (10 to 2000 Hz)	100m/s²			
Impact resistance (11 ms)	1000m/s²			
Protective structure	IP66 (not including interpolation box and connectors)			
Operating temperature	0℃ to 50℃/32℃ F to 122℉			
Storage temperature	–20℃ to 60℃/–4℃F to 140℉			
Power supply voltage	DC +5 V ±5%			
Power consumption	1 W			
Cable length*2	2.5 m/8.2'			
Diameter of stem	$\phi 9.5^{0}_{-0.009}$ / $0.37"^{0}_{-0.0004}$ dia., φ*8 / 0.31"dia. (Pneumatic push type)			
Mass*1	Approx. 30 g/1.06 oz			
Feeler	Provided with a carbide ball tip (DZ-123) Mount screw M2.5		Provided with a steel ball tip Mount screw M2.5	
Accessories	+P M4x5 screw (2pcs.). Installation spacer, Instruction Manual, Supplement			
Output cable length(up to the electronic section)	22 m/72.2' max.			

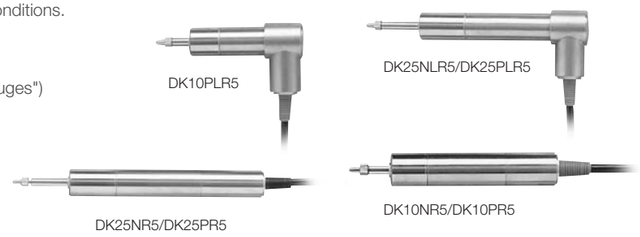
*1 : Please refer to P10 DK 802 A/B about the extension cable (Option).
*2 : The mass indicated is the total mass excluding the cable and interpolation box.

DK DK10/25 Series

High accuracy, rugged gauges.
Suitable for installation on machine.

- Measuring range : 10 mm / 0.39" and 25 mm / 0.98" ● Accuracy : 2 μm
- Resolution : 0.5 μm ● Excellent resistance to workshop conditions.
- High measuring force (10PR5/10PLR5/25PR5/25PLR5)
- Low measuring force (10NR5/25NR5/25NLR)
- A variety of accessories available (See "Accessories for Gauges")
- Direct connected to A/B quadrature counter

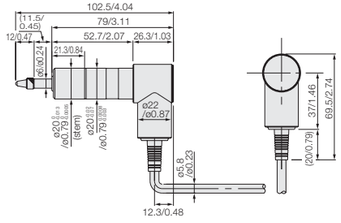




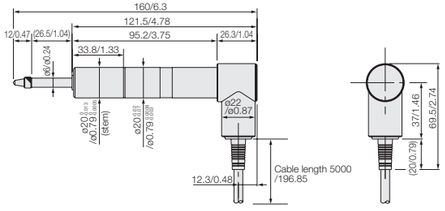
Digital Gauge

Dimensions

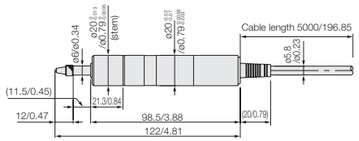
DK10PLR5



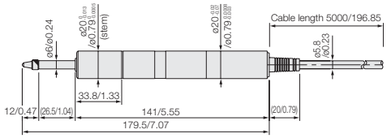
DK25NLR5/PLR5



DK10NR5/PR5



DK25NR5/PR5



Unit : mm/inch

Specifications

Model		DK10NR5	DK10PR5	DK10PLR5	DK25NR5	DK25PR5	DK25NLR5	DK25PLR5
Output		A/B/Z phase voltage-differential line driver output (compliant with EIA-422) *Please see P17 Output Signal Phase Difference.						
Resolution*1		0.5 μm						
Measuring range		10 mm			25 mm			
Accuracy (at 20℃)		2 μm						
Measuring force (at 20℃)	Upward	0.3 ± 0.25 N	4.9 N or less		0.4 ± 0.3 N	4.9 N or less	0.4 ± 0.3 N	4.9 N or less
	Horizontal	0.6 ± 0.3 N			0.7 ± 0.35 N		0.7 ± 0.35 N	
	Downward	0.8 ± 0.35 N			1 ± 0.4 N		1 ± 0.4 N	
Reference point		One location (at 1 mm position of spindle movement)						
Maximum response speed		250 m/min						
Vibration resistance (10 to 2000 Hz)		150 m/s²						
Impact resistance (11 ms)		1500 m/s²						
Protective structure		IP50	IP64		IP50	IP64	IP50	IP64
Operating temperature		0℃ to 50℃						
Storage temperature		-20℃ to 60℃						
Power supply voltage		DC +5 V ±5%						
Power consumption		1 W or less						
Cable length*2		Approx. 2.5 m						
Diameter of stem		$\phi 20^{0}_{-0.013}$ mm						
Mass*3		Approx. 230 g			Approx. 300 g			
Feeler		Provided with a carbide ball tip DZ-122 (Mount screw M2.5)						
Output cable length		22 m max.						
Guaranteed number of Strokes		Minimum 5 million cycles without shock						
Accessories		+P M4x5 screw (2 pcs.), Instruction Manual						

*1 : The resolution setting needs to be made when connecting to the LT30 series, MG series, and LY70 series. For details, please refer to the respective instruction manual.
*2 : Please refer to P10 DK 802 A/B about the extension cable (Option).
*3 : The mass indicated is the total mass excluding the cable and interpolation box.