

# SONY

Digital Gauge  
Measuring Unit **DK SERIES**

*Field-proven highly reliable magnetic digital gauges*



## DIGITAL GAUGE

**The DK series is a slim, compact Digital Gauge**

**Provides high resolution ( $0.1\mu\text{m}$ ), high accuracy ( $\pm 0.5\mu\text{m}$ ) linear measurement for a variety of applications.**

Measuring range: 2mm or 12mm

Built-in reference point

Vacuum retract, spring push or pneumatic push

Robust design for harsh environments (IP66)

Flange mount available

Linear over entire stroke

TTL Output. Easily connects to a PC,

PLC or to Sony's "MG" series of Multi-interface units.



**Sony Manufacturing Systems Corporation**



Isehara Center is registered to ISO 9001( Quality )

## Specifications

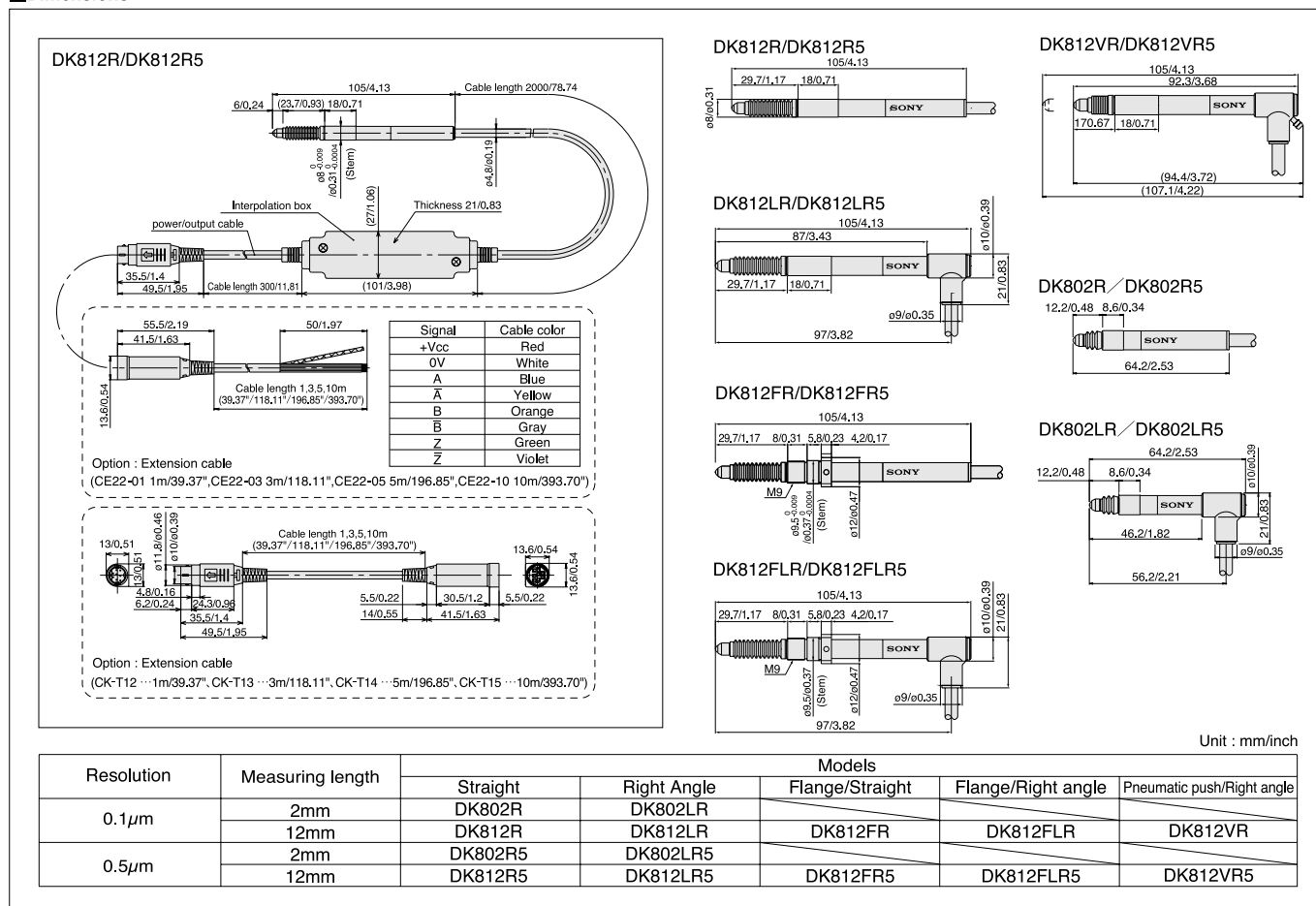
Model name	DK812R,DK812LR,DK812FR,DK812FLR, DK812VR,DK802R,DK802LR	DK812R5,DK812LR5,DK812FR5,DK812FLR5, DK812VR5,DK802R5,DK802LR5
Output	A / B / Z Quadrature (Line Driver EIA-422 or equivalent)	
Measuring range	2mm/12mm	
Minimum resolution	0.1μm	0.5μm
Minimum phase difference*1	100ns	
Accuracy (at 20°C)	±0.5μm	±0.8μm
Measuring Force	Measuring range : 2mm Downward : 0.45±0.25N Lateral : 0.40±0.25N Upward : 0.35±0.25N	Measuring range : 12mm Downward : 0.6±0.3N Lateral : 0.5±0.3N Upward : 0.4±0.3N
Reference point	1 (1mm from spindle start)	
Maximum response speed	42m/min	100m/min
Feeler	carbide ball ø3 (Mounting screw: M2.5x0.45)	steel ball ø3 (Mounting screw: M2.5x0.45)
Spindle action by air	Vacuum retraction (type LR) Pneumatic push (type VR)	
Vibration resistance	100m/s <sup>2</sup> (10~2000Hz)	
Shock resistance	1000m/s <sup>2</sup> (11ms)	
Protective design grade	IP66 (not including Interpolation box and connector)	
Operating temperature	0~50°C(Interpolation box: 0~40°C)	
Storage temperature	-20~60°C	
Power supply voltage	+5VDC±5% *2	
Power consumption	1.8W	
Mass*3	Approx. 20g (measuring range: 2mm) Approx. 30g (measuring range: 12mm)	
Length of output cable	12m max. (Cable length to subsequent electronics)	

\*1 : Contact us for models with a larger phase difference.

\*2 : The power supply should be between +5V and +5.25V with cable fully extended.

\*3 : Cable and Interpolation box are not included.

## Dimensions



**⚠ Safety notice:** Prior to use, be absolutely certain to read and understand the Operating Instruction to ensure proper use of this product.

● Specifications and dimensions listed in this brochure are subject to change without notice due to product improvement.

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