

# Magnetostrictive Linear Position Sensor

Plunger type Analog

L5 - KXXXX-1A



## Profile

- Outside Cylinder design, installation easily
- Absolute position output, without zero operation
- Contactless sensing with highest durability
- Design of low power consumption, reduce the temperature drift



## Features

- High resolution, 14bits D/A
- Linearity deviation <  $\pm 0.01\%$  rated length
- Repeatability <  $\pm 0.002\%$  rated length

Parameter of measurement	
Measuring Length	50-1200mm
Output	0-20mA(Min./Max.Load: 0/500 $\Omega$ ) 4-20mA(Min./Max.Load: 0/500 $\Omega$ ) 0-10V(Min.Load>5k $\Omega$ ) -10-10V(Min.Load>5k $\Omega$ )
Resolution	14 bit D/A
Linearity	< $\pm 0.02\%$ F.S. (Min. $\pm 100\mu\text{m}$ )
Repeatability	< $\pm 0.002\%$ F.S.
Update time	depend on the full scale

Design & Material	
Sensor head	Built in
Sensor stroke	Aluminium alloy
Mounting holder	304LStainless

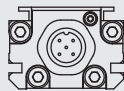
Installation & Accessories	
Installation direction	Any orientation
Installation	Mounting holder, M5 $\times$ 20Specified screw
Connector	E1-1205-0001 Connector, Not included in delivery:

Electrical characteristics	
Connection	Waterproof connector or M12, 5pins connector
Voltage	24VDC (-15% / +20%)
Current	< 60mA (depend on Measuring range)
Polarity protection*	Max.-30VDC
Overvoltage protection*	Max. 36VDC
Electric strength	500V (DC ground to machine ground)
Error indicator	Red,Green dual LED

\* Max. 5mins

Operation condition	
Magnet speed	<2.5 m/s
Operating temperature	-40 $^{\circ}\text{C}$ ~ +85 $^{\circ}\text{C}$
Humidity/Dew point	R.H.90%, No Condensation
Temperature coefficient	< 30ppm/ $^{\circ}\text{C}$
Protection Level	IP65

Sensor diagnostic display		
Green	Red	Description
ON	—	Normal function
—	ON	Magnet not detected or damaged magnet
—	Flash	Magnet out of measuring range
<b>Flash</b>	—	Programming mode



## Wiring

Signal	Ub	GND	Analog output	Communication	Signal GND
Cables (Color)	Brown	Blue	White	Black	Gray
M12, 5 Pins connector	1	3	2	4	5

M12, 5 pins connector (sensor)

