

Magnetostrictive Linear Position Sensor

Inside cylinder Analog Output

L5 - AXXXX-1A



Profile

- Robust, oil resistance
- Absolute position output, without zero operation
- Contactless sensing with highest durability
- High resolution, analog output 16bitD/A, unlimited resolution
- Design of low power consumption, reduce the temperature drift
- Starting point, end point and range can be programmed

CE UL RoHS **Analog**

Features

- Status LEDs for indicating operating status and diagnostics
- Modular design, easy repairing
- Linearity deviation < $\pm 0.01\%$ rated length
- Repeatability < $\pm 0.001\%$ rated length

Parameter of measurement

Measuring Length	25~7600mm
Output	0~20mA (Min./Max.Load: 0/500 Ω) 4~20mA (Min./Max.Load: 0/500 Ω) 0~10V (Min.Load > 5k Ω) -10~+10V (Min.Load > 5k Ω)
Resolution	16 bit D/A
Linearity	< $\pm 0.01\%$ F.S. (Min. $\pm 50\mu\text{m}$)
Repeatability	< $\pm 0.001\%$ F.S. (Min. $\pm 1\mu\text{m}$)
Update time	0.5ms (F.S. < 1m) 1.0ms (1m < F.S. < 2m) 2.0ms (2m < F.S. < 4m) 4.0ms (4m < F.S. < 7.6m)

Design & Material

Sensor head	Aluminium alloy
Protective rod	304L Stainless
Mounting flange	304L Stainless

Installation & Accessories

Installation direction	Any orientation
Installation	Threaded flange M18x1.5 or on demand
Magnet	L5-0000-ACRI-0001, Not included in delivery
Antimagnetical Spacer	L5-0000-ACMT-0001, Not included in delivery
Connector	E1-2206-0100, Not included in delivery

Electrical characteristics

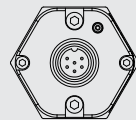
Connection	Cable or M16,6 pin Connector
Voltage	24VDC (-15% / +20%)
Current	< 50mA (depend on Measuring range)
Polarity protection*	Max. -30VDC
Overvoltage protection*	Max. 36VDC
Electric strength	500V (DC ground to machine ground)
Error indicator	Red Green LED Indicator

* Max. 5mins

Operation condition

Magnet speed	Any
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	IP67
Pressure rating	35MPa (Continuously) / 70MPa (Peak value)

Sensor diagnostic display



Indicator	Description
Green ON	Normal function
Green Flash	Programming mode
Red Flash	Magnet out of measuring range
Red ON	Magnet not detected or damaged magnet

Wiring

Signal	Ub	GND	Analog Output	Signal GND	(+) Comm	(-) Comm
Cable(color)	Brown	White	Gray	Pink	Yellow	Green
M16, 6 Pins Connector	5	6	1	2	3	4

M16, 6 pins Pin top view (sensor)

