

Magnetostrictive Linear Position Sensor

Inside cylinder SSI

L5 - AXXXX-12



Profile

- Robust, oil resistance
- Absolute position output, without zero operation
- Contactless sensing with highest durability
- High resolution, SSI output upto 0.5µm
- Design of low power consumption, reduce the temperature drift



Features

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

Parameter of measurement	
Measuring Length	25 ~ 7600 mm
SSI Signal	24,25,26 bits Binary or Gray
Baud rate	70kBd ~ 1MBd
	Cable Length: <3 <50 <100 <200 <400m Baud rate: 1000 <400 <300 <200 <100kBd
Resolution	0.5 / 1 / 2 / 5 / 10 / 20 / 50 / 100 µm
Linearity	< ±0.01% F.S. (Min.±40µm)
Repeatability	< ±0.001% F.S. (± 1bit)
Update time	Range : 300 750 1000 2000 5000 mm Frequency: 3.7 3.0 2.3 1.2 0.5 kHz

Design & Material	
Sensor head	Aluminium alloy
Protective rod	304LStainless
Mounting flange	304LStainless

Installation & Accessories	
Installation direction	Any orientation
Installation	Threaded flange M18×1.5 or on demand
Magnet	L5-0000-ACRI-0001, Not included in delivery
Antimagnetical Spacer	L5-0000-ACMT-0001, Not included in delivery
Connector	7pins: E1-2207-0100, Not included in delivery or 8 pins: E1-2208-0100, Not included in delivery

Electrical characteristics	
Connection	Cable or M16,7pins/8 pinsConnector
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 and Green LED indicator

* Max. 5mins

Operation condition	
Magnet speed	Any
Operating temperature	-40°C ~ +85°C
Humidity/Dew point	R.H.90%, No Condensation
Temperature coefficient	< 15ppm/°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	

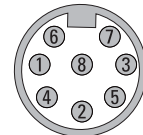
Wiring

Signal	Ub	GND	+C	-C	+D	-D
Cable(color)	Brown	White	Yellow	Green	Pink	Gray
M16, 7 Pins Connector	5	6	3	4	2	1
M16, 8 Pins Connector	7	6	1	3	2	5

M16, 7 pins Pin top view (sensor)



M16, 8 pins Pin top view (sensor)



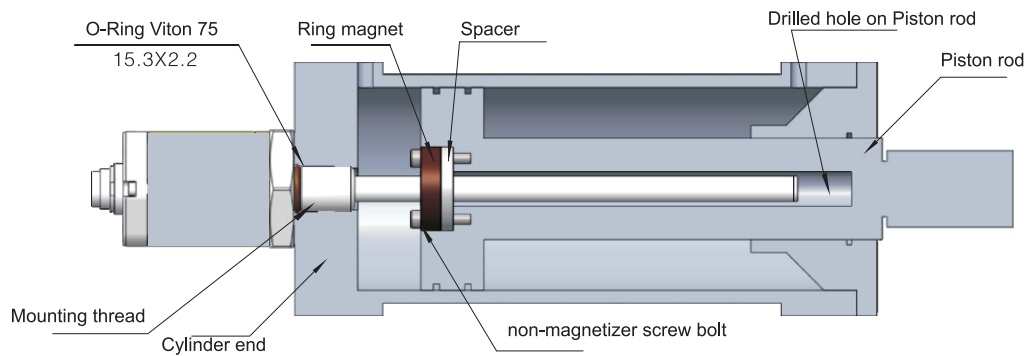
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Inside cylinder SSI

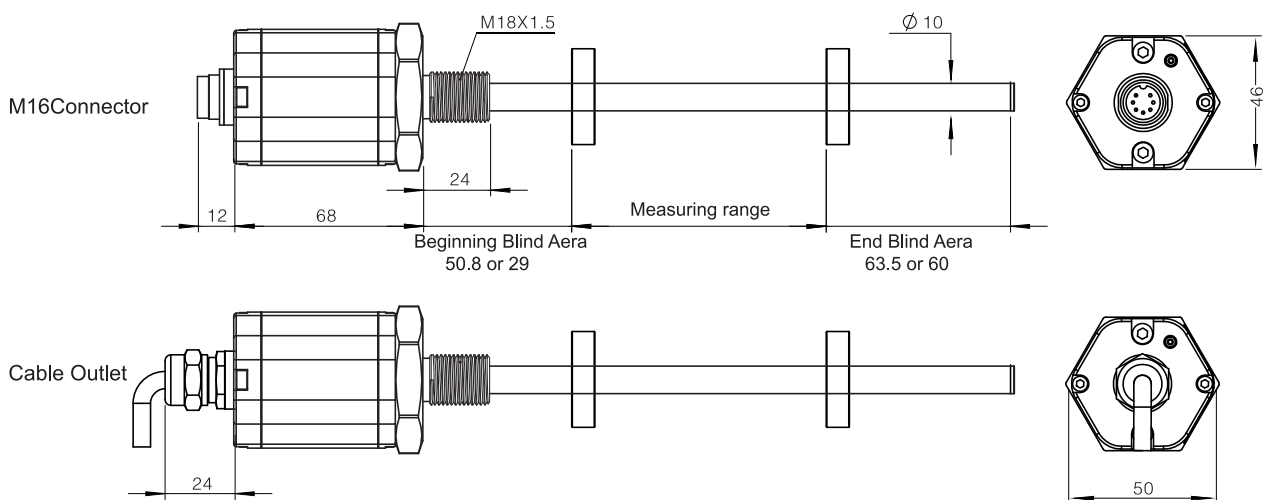
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Ordering example Inside Cylinder	L5 - A <u>1 0 0 0</u> - <u>1 2 1 2</u> - <u>XXXX</u> <u>X</u> <u>X</u> - <u>X</u>							
	a	b	c	d	e	f	g	h
a Measuring range 1000 = 1000 mm Max.7600 mm in 5-mm increments	c Operation Voltage 1 = 24 VDC	e Communication S1G1 = 25 bits, Gray S1G2 = 24 bits, Gray S1G3 = 26 bits, Gray S1B1 = 25 bits, Binary S1B2 = 24 bits, Binary S1B3 = 26 bits, Binary		f Resolution 1 = 0.001 2 = 0.002 3 = 0.005 4 = 0.01 5 = 0.02 6 = 0.05 7 = 0.1 8 = 0.0005				
b Output 12 = SSI output	d wiring 2 = M16, 7pinsConnector 4 = M16, 8 pinsConnector PXX = Standard cable outlet, XX meters TXX = High temperature cable outlet, XX meters		g Direction P = Forward direction N = Reverse direction		h Blind Aera (Bigning+End) S = 50.8 + 63.5 (mm) B = 29 + 60 (mm)			

Installation



Dimensions



Note: L5 Serise product compression rod can be conveniently separated with the electronic head (two M4 x 59 screw), in does not leak under pressure to achieve rapid replacement, the pressure rod can become cylinder permanent sections.