

# Magnetostrictive Linear Position Sensor

Outside cylinder Start/Stop

L5 - BXXXX-14



## Profile

- Outside installation, easy to use
- Absolute position output, without zero operation
- Contactless sensing with highest durability
- Start/ Stop pulse
- Design of low power consumption, reduce the temperature drift

CE UL RoHS **Start / Stop**

## 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	25~3500mm
Output	Start/ Stop Pulse
Resolution	0.1 mm / 0.01 mm / 0.005 mm (Depend on controller)
Linearity	< $\pm 0.01\%$ F.S. (Min. $\pm 50\mu\text{m}$ )
Repeatability	< $\pm 0.001\%$ F.S. (Min. $\pm 1\mu\text{m}$ )
Frequency response	Depend on Measuring range

Design & Material	
Sensor head	Aluminium alloy
Protective shell	Aluminium alloy
Mounting holder	304LStainless

Installation & Accessories	
Installation direction	Any orientation
Installation	Mounting holder, M5 $\times$ 20
Magnet	Round rail slide magnet L5-0000-ACMB-0003, Not included in delivery Square floating magnet L5-0000-ACMB-0001, Not included in delivery U-Magnet L5-0000-ACRI-0005, Not included in delivery
Mounting holder	L5-0000-ACMT-0002, Not included in delivery (At least two)
Connector	E1-2206-0100, Not included in delivery

Electrical characteristics	
Connection	Cable or M16,6 pins 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 and Green LED indicator

\* Max. 5mins

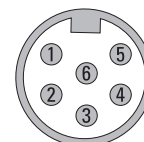
Operation condition	
Magnet speed	Any
Operating temperature	-40°C ~ +85°C
Humidity/Dew point	R.H.90%, No Condensation
Temperature coefficient	< 30ppm/°C
Protection Level	IP67

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	Start (+)	Start (-)	Stop (+)	Stop (-)
Cable(color)	Brown	White	Yellow	Green	Pink	Gray
M16, 6 Pins Connector	5	6	3	4	2	1

M16, 6 pins Pin top view (sensor)



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**Outside cylinder Start/Stop**

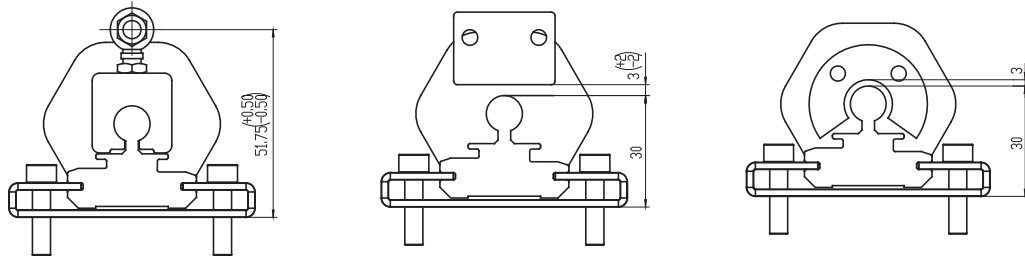
**L5 - BXXXX-14**

**Ordering example Outside Cylinder** L5 - B 0 1 0 0 - 1 4 1 5 - STSP 0 P - S

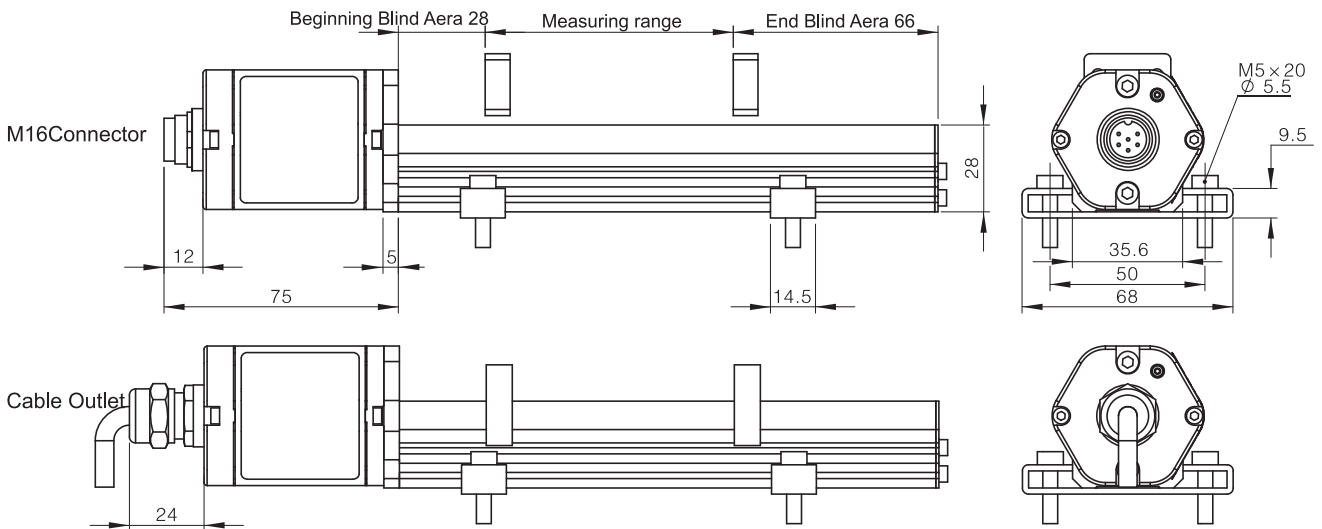
Serie
a
b
c
d
e
f

<p><b>a</b> Measuring range 0100 = 100 mm ..... Max.3500 mm in 5-mm increments</p>	<p><b>c</b> Operation Voltage 1 = 24 VDC</p>	<p><b>e</b> Output STSP = Start / Stop Pulse Signal</p>
<p><b>b</b> Output 14 = Start / Stop pulse</p>	<p><b>d</b> wiring 5 = M16, 6 pinsConnector PXX = Standard cable outlet, XX meters TXX = High temperature cable outlet, XX meters</p>	<p><b>f</b> Blind Aera (Bignning+End) S = 28 + 66 (mm)</p>

## Installation



## Dimensions



Note: Position measurement is via floating magnets travelling along the sensing rod without any mechanical contact.  
 Square floating magnet : Max.Horizontal offset upto ±3mm, Max.Vertical distance upto 5mm.