



mm P117



Description

Slim-Line Linear Position Sensor

- Measurement Range from 0 ... 10 mm to 0 ... 300 mm
- Linearity ± 0.25 %
- Several options for supply voltage and output signal

The P117 LIPS® (Linear Inductive Position Sensor) is an affordable, durable, high-accuracy position sensor designed for industrial and scientific feedback applications. It is particularly suitable for OEMs seeking good sensor performance for arduous applications such as industrial machinery where cost is important.

Overall performance, repeatability and stability are outstanding over a wide temperature range. The unit is very compact and space-efficient with a small 19 mm diameter body. The sensor is very robust, the body and push rod being made of stainless steel. The sensor is easy to install with mounting options including M5 male stud and M5 rod eye bearing. The push rod can be supplied free or captive, with male M5 thread or M5 rod eye. Like all LIPS® sensors, the P117 provides a linear output proportional to displacement. Each unit is supplied with the output calibrated to the travel required by the customer, from 10 to 300 mm and with full EMC protection built in. The P117 offers a range of mechanical options, environmental sealing is IP67.

Specifications

Measurement Ranges:	0 ... 10 mm to 0 ... 300 mm, factory-set, in increments of 1 mm	
Supply Voltage:	See options	
Output Signal:	See options	
Independent Linearity at 20 °C:	< ± 0.25 %	
Temperature Coefficient Gain:	< ± 0.01 % / K	
Temperature Coefficient Offset:	< ± 0.01 % FS / K	
Frequency Range:	0 ... >10 kHz (-3 dB)	
Resolution:	Infinite	
Noise:	<0.02 % FSO	
Operating Temperature Range:	-40 ... +125 °C	standard version
	-20 ... +85 °C	buffered versions
Storage Temperature Range:	-40 ... +125 °C	
Environmental Sealing:	IP67	
EMC Performance:	EN61000-6-2, EN61000-6-3	
Vibration, max.:	IEC 68-2-6: 10 g	
Shock, max.:	IEC 68-2-29: 40 g	
MTBF:	350000 hours, 40 °C, Gf	
Electrical Connection:	Connector or 0.5 m cable	

Options

Order Code	Output Signal	Supply Voltage	Output Load
Standard version:			
-A-	0.5 ... 4.5 V ratiometric	+5 VDC nom., ±0.5 V	5 kΩ min.
Buffered versions:			
-G-	0.5 ... 4.5 V	+24 VDC nom., +9 ... 28 VDC	5 kΩ min.
-C-	0.5 ... 9.5 V	+24 VDC nom., +13 ... 28 VDC	5 kΩ min.
	Supply current	10 mA typ., 20 mA max.	

Options Connector / Cable:

-J	Axial connector, IP67
-K	Radial connector, IP67
-L50	Cable with axial gland, IP67, 50 cm
-I50	Cable with radial gland, IP67, 50 cm

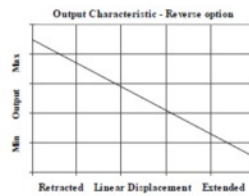
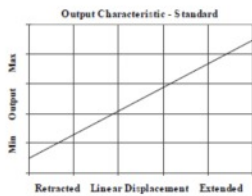
Other cable lengths available

Body Mounting Options:

-N	M5 rod eye bearing (radial versions only)
----	-------------------------------------------

Push Rod Options:

-U	M5 rod eye bearing
-V	Free (non-captive)
blank	M5 x 0.8 male thread (standard)



Electrical Connection

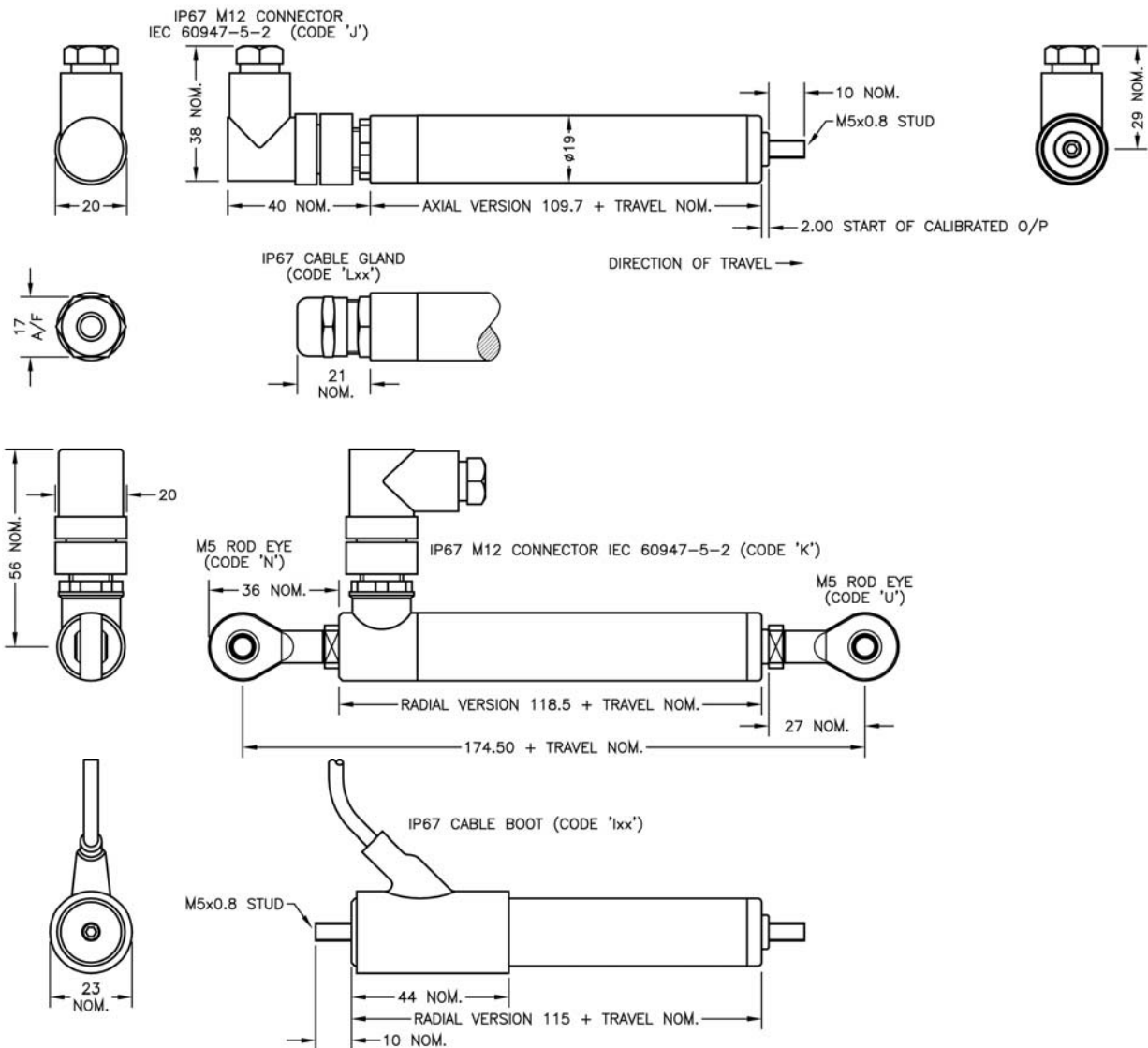
- Cable (Options Lxx or Ixx):
- 3-core screened PUR cable, 0.2 mm², Ø 4 mm,
 - Standard length 50 cm

Connector: maximum conductor cross section 0.75 mm²

Connections:

3-core Cable	Connector	Function
red	red	+ supply voltage
black	green	0 V
white	blue	output signal
screen	screen	body

■ Dimensions



All dimensions in mm, approx. values.
These drawings are for information only and not intended for construction purpose. Please ask for detailed drawings.