



mm P112



Description

- Measurement Ranges from 0 ... 10 mm to 0 ... 50 mm
- Linearity $\pm 0.25\%$
- Several options for supply voltage and output signal

The P112 LIPS® (Linear Induction Position Sensor) is an affordable, durable high-accuracy sensor for gauge head positioning in industrial and scientific applications. The P112, like all LIPS® sensors, provides a linear output proportional to displacement. Each sensor is supplied with the output calibrated to the travel required by the customer, from 10 mm to 50 mm and with full EMC protection built in.

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 sensor is very robust, the body and plunger being made of stainless steel for long service life and environmental resistance. The plunger is spring loaded with a domed end. The P112 is easy to install with a long 1/2 inch UNF mounting thread and is supplied with two lock nuts for positioning. Environmental sealing is to IP67.

Features

- Gauge head positioning for industrial and scientific applications
- Non-contacting inductive technology to eliminate wear
- Travel set to customer's requirement
- Compact 19 mm diameter body, durable and reliable
- High accuracy and stability
- Sealing to IP67

Specifications

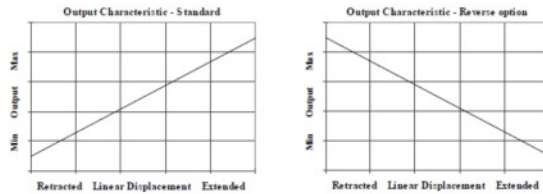
| | | |
|---------------------------------|--|-------------------|
| Measurement Ranges: | 0 ... 10 mm to 0 ... 50 mm, factory-set, in increments of 1 mm | |
| Supply voltage: | see options | |
| Output signal: | see options | |
| Independent Linearity at 20 °C: | < $\pm 0.25\%$ | |
| Temperature Coefficient Gain: | < $\pm 0.01\%$ /K | |
| Temperature Coefficient Offset: | < $\pm 0.01\%$ FS/K | |
| Frequency Range: | 0 ... >10 kHz (-3 dB) | |
| Resolution: | Infinite | |
| Noise: | <0.02 % FSO | |
| Spring Force: | 1.5 ... 4.5 N approx. | |
| 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

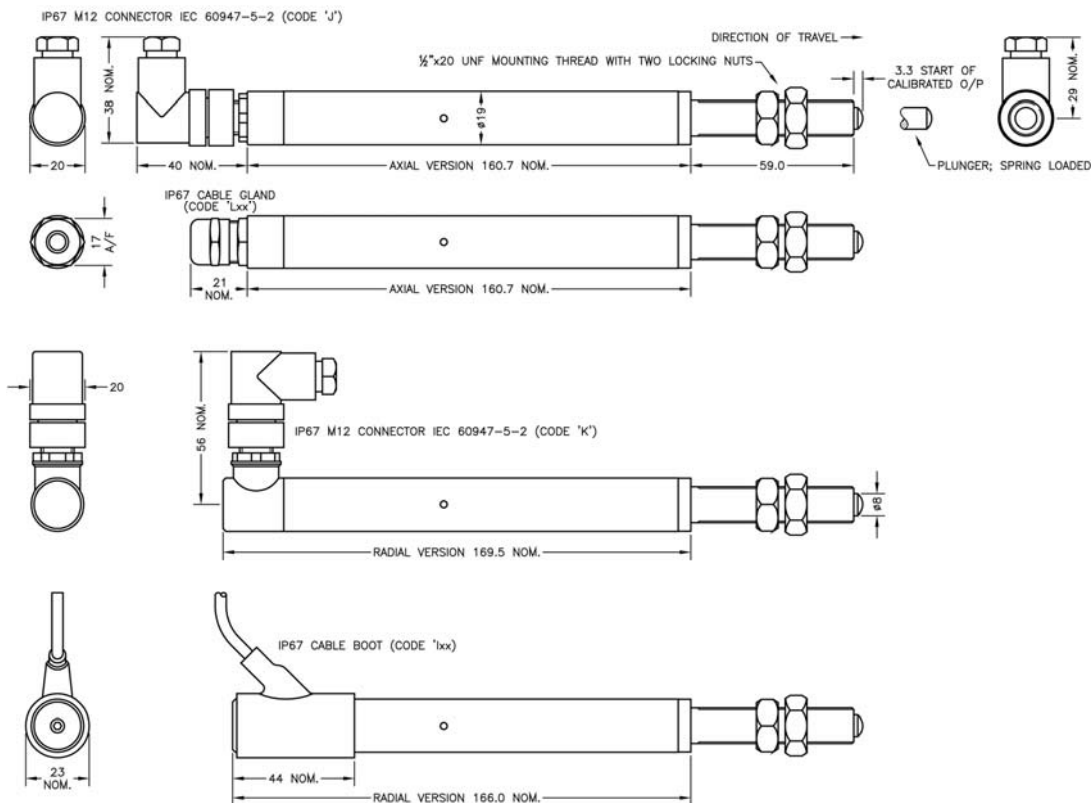
| Order Code | Output Signal | Supply Voltage | Output Load |
|--------------------|---------------------------|------------------------------|-------------|
| Standard version: | | | |
| -A- | 0.5 ... 4.5 V ratiometric | +5 VDC nom., ±0.5 V | 5 kΩ min. |
| buffered versions: | | | |
| -G- | 0.5 ... 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. |

Connector / Cable Options:

- 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



Dimensions



All dimensions in mm, approx. values.

These drawings are for information only and not intended for construction purpose. Please ask for detailed drawings.

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 | pin 1 | + supply voltage |
| black | pin 3 | 0 V |
| white | pin 2 | output signal |