

# LIPS® P115 RUGGED SUBMERSIBLE STAND-ALONE LINEAR POSITION SENSOR

Position feedback for industrial and scientific applications

- Non-contacting inductive technology to eliminate wear
- Travel set to customer's requirement
- Compact and self-contained
- High durability and reliability
- High accuracy and stability
- Sealing to IP68 10Bar



As a leading designer and manufacturer of linear, rotary, tilt and intrinsically safe position sensors, Positek® has the expertise to supply a sensor to suit a wide variety of applications.

Our P115 LIPS® (Linear Inductive Position Sensor) is a heavy-duty version of the P114 sensor with a stronger 12.7mm push rod, recommended for applications where vibration is an issue or there is a need for longer travel sensors which are to be mounted horizontally between rod eyes. It remains an affordable, durable, high-accuracy position sensor designed for applications where the sensor would be completely submerged during normal operation, up to a pressure of 10Bar. The unit is highly compact and space-efficient, being responsive along almost its entire length. Like all Positek sensors, the P115 provides a linear output proportional to displacement. Each sensor is supplied with the output calibrated to the travel required by the customer, from 50 to 600mm and with full EMC protection built in.

The sensor is very robust, the body and push rod being made of stainless steel for long service life and environmental resistance.

Overall performance, repeatability and stability are outstanding over a wide temperature range. The sensor is easy to install with mounting options including stainless steel M8 rod eye bearings and body clamps. The push rod can be supplied free or captive, with female M8 thread, or an M8 stainless steel rod eye. The P115 also offers a wide range of mechanical and electrical options, environmental sealing is to IP68 10Bar.

## SPECIFICATION

### DIMENSIONS

|                              |                                      |
|------------------------------|--------------------------------------|
| Body diameter                | 35 mm                                |
| Body length (Axial version)  | measurement length + 166 mm          |
| Body length (Radial version) | measurement length + 189 mm          |
| Push rod extension           | measurement length + 7mm, OD 12.65mm |

*For full mechanical details see drawing P115-11*

**Independent linearity** < ± 0.25% up to 450mm @ 20°C

< ± 0.5% over 450mm @ 20°C

**Temperature coefficients** < ± 0.01%/°C Gain &

< ± 0.01%FS/°C Offset

**Typical overall accuracy** < ± 0.75%/ FSO

**Frequency response** > 10 KHz (-3dB)

> 300 Hz (-3dB) 2 wire 4 to 20 mA

**Resolution** Infinite

**Noise** < 0.02% FSO

**Environmental Temperature Limits**

Operating -40 to +125°C standard

-20 to +85°C buffered

Storage -40 to +125°C

**Sealing** IP68 10Bar

**EMC Performance** EN 61000-6-2, EN 61000-6-3

**Vibration** IEC 68-2-6: 10g

**Shock** IEC 68-2-29: 40 g

**MTBF** 350,000 hrs 40°C Gf

**Drawing List**

P115-11

Sensor Outline

*Drawings, in AutoCAD® dwg or dxf format, available on request.*

**Do you need a position sensor made to order to suit a particular installation requirement or specification? We'll be happy to modify any of our designs to suit your needs - please contact us with your requirements.**

