



P132 GAUGE HEAD POSITION SENSOR

Position feedback for industrial and scientific applications

- **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**
- **Sealing to IP67**



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 P132 is an affordable, durable high-accuracy sensor for gauge head positioning in industrial and scientific applications. The P132, like all Positek® sensors, provides a linear output proportional to travel. Each sensor is supplied with the output calibrated to the travel required by the customer, from 51 mm to 100 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 P132 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.

SPECIFICATION

Dimensions	
Body diameter	19 mm
Body Length (excluding thread)	
Axial version	256.7 mm
Radial boot version	262 mm
Radial version	265.5 mm
Mounting Thread Length	79 mm
Plunger extension	calibrated travel + 3.3 mm, OD 7.8 mm
<i>For full mechanical details see drawing P132-11</i>	
Spring Force	4 - 8 N approx.
Independent Linearity	≤ ± 0.25% FSO @ 20°C
Temperature Coefficients	< ± 0.01%/°C Gain & < ± 0.01%FS/°C Offset
Frequency Response	> 10 kHz (-3dB)
Resolution	Infinite
Noise	< 0.02% FSO
Environmental Temperature Limits	
Operating	-40°C to +125°C standard -20°C to +85°C buffered
Storage	-40°C to +125°C
Sealing	IP67
EMC Performance	EN 61000-6-2, EN 61000-6-3
Vibration	IEC 68-2-6: 10 g
Shock	IEC 68-2-29: 40 g
MTBF	350,000 hrs 40°C Gf
Drawing List	
P132-11	Sensor Outline
<i>3D models, step or .igs format, available on request.</i>	

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.

For further information please contact:

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P132 GAUGE HEAD POSITION SENSOR

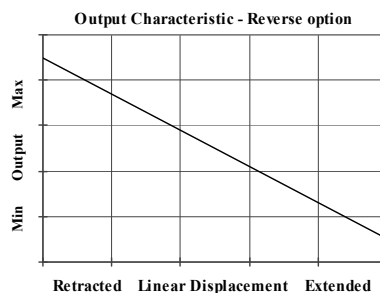
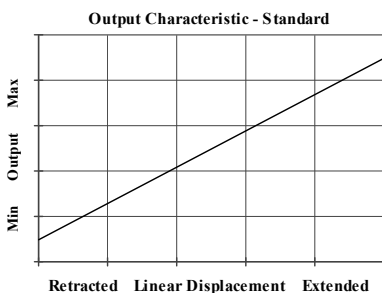
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How Positek's technology eliminates wear for longer life

Positek's Inductive technology is a major advance in displacement sensor design. Our displacement transducers have the simplicity of a potentiometer with the life of an LVDT/RVDT. Our technology combines the best in fundamental inductive principles with advanced micro-electronic integrated circuit technology. A Positek sensor, based on simple inductive coils using Positek's ASIC control technology, directly measures absolute position giving a DC analogue output signal. Because there is no contact between moving electrical components, reliability is high and wear is eliminated for an exceptionally long life. It also overcomes the drawbacks of LVDT technology – bulky coils, poor length-to-stroke ratio and the need for special magnetic materials, no requirement for separate signal conditioning. We also offer a range of ATEX-qualified intrinsically-safe sensors.

P132	a	b	c	d
	Displacement	Output	Connections	Z-code

a Displacement	Value
Factory set to any length from 0-51 mm to 0-100 mm (e.g. 0-66 mm).	66
b Output	Code
Supply V _{dc} (tolerance)	Output
+5V (4.5 - 5.5V)	0.5 - 4.5V (ratiometric with supply)
+24V nom. (13 - 28V)	0.5 - 9.5V
+24V nom. (9 - 28V)	0.5 - 4.5V
+24V nom. (13 - 28V)	4 - 20mA 3 wire Source
Supply Current: 'A' 10mA nominal, 12mA max. 'G' 12mA nominal, 15mA max. 'H' 32mA nominal, 35mA max.	
c Connections	Code
Cable boot radial IP67	Ixx
Cable gland radial IP67 Pg9, metal	IAxx
Connector axial IP67 4 pin M12 IEC 61076-2-101, nylon	J
Connector axial IP67 4 pin M12 IEC 61076-2-101, nylon pre-wired	Jxx
Connector radial IP67 4 pin M12 IEC 61076-2-101, nylon	K
Connector radial IP67 4 pin M12 IEC 61076-2-101, nylon pre-wired	Kxx
Cable gland axial IP67 Pg9, metal	Lxx
Specify required cable length 'xx' in cm. e.g. L2000 specifies axial cable gland with 20 m of cable, 50 cm supplied as standard.	
d Z-code (optional)	Code
≤± 0.1% FSO @20°C Independent Linearity	Z650



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A	First Release	PDM	06/03/24	-