



DESCRIPTION

The PSIL30 is a non-contact linear sensor manufactured for industrial applications requiring long term stability in a harsh environment. This patented linear inductive technology allows customization for specific applications that may require small objects to measure. The aluminum housing is designed for higher temperature applications where dust, humidity, and/or grease might be an issue.

The PSIL30 sensor is easy to use, install, and flexible in the use of various sensing cores to meet customers requirements.

The design is simple, cost effective, and proves reliable for OEM customers. Please contact us for Custom design availability.

- Industrial Inductive Linear Sensor
- Non-Contact technology
- 0-6" Travel
- -20-80°C Operating Temperature
- +/-0.5% (.25% Option) Repeatability FS
- Current Output (4-20mA)
- IP67
- Customizable Stroke
- +/-2% accuracy

APPLICATIONS

- Industrial Automation
- Scribing Equipment
- Automotive
- Aerospace

Maximum Environmental Ratings

Operating Temperature -20°C to 80°C
Storage Temperature Range -35°C to 85°C

Supply Voltage.....18-30VDC
Protection Class..... IP67

PSIL30 Operational Characteristics

V ₊ = 5V, V ₋ = 0V, Temperature = 25°C					
PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Supply Voltage	V _{DD}	18	24	30	V
Supply Current	I _{DD}	12	20	40	mA
Output Current	V _I	4		20	mA
Linearity (Note 2)		-0.25		0.25	%FS
Temperature Error (Null and Span) (Note 3)		-2		+2	%FS
Response Time	t _R		3	3.5	ms
Total Error Band (Note 1,4)		-2		2	%FS
Compensated Temperature Range	C	-10		60	C
Operating Temperature Range	C	-20		80	C

Notes:

1) Measured with Supply Voltage at 24V. 2) Defined as best straight line 3) Measured from 0°C to 70°C 4) Measured over compensated temperature range -10-60C

Application Information

Package

The two piece sensor body design is made of a high temperature aluminum alloys, which allows for easy manufacturability and long term stability. Automotive grade vibration proof design was made for 5 year+ life.

Stability

The inductive sensing element is mounted to a ceramic base and sealed into the high temperature plastic housing. The selection of thermally capability materials reduce the mechanical stress on the sensor resulting in greater stability over time and temperature.

Electrical Connections

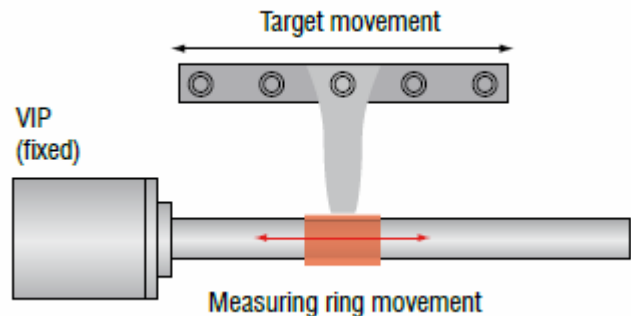
Wire Color	Connection
Brown	V+
White	GND
Black	Output

Media

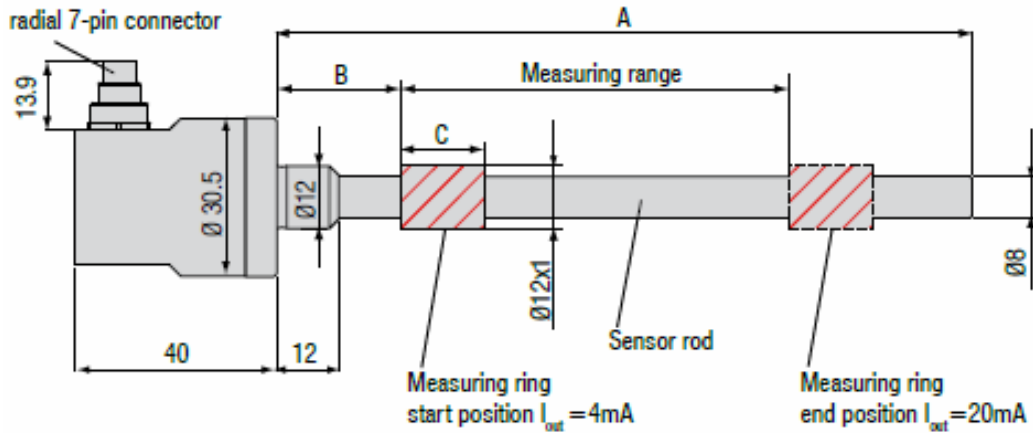
The plastic material is tolerant to the following media but not limited to oil, air, gas, some corrosive media, and salt water. The sensor can be affected by large ferrous objects within 6" of the sensor.

Linear ranges

Standard stroke 50, 100, and 150mm. Custom linear displacement ranges are available for OEM customers.

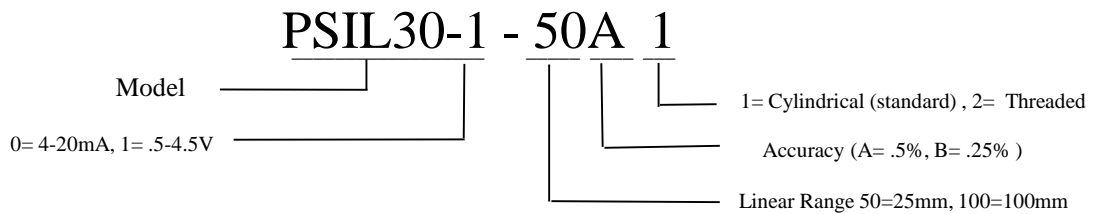


Mechanical Dimensions (inches)



Measuring range	A	B	C
50	105	24	11.5
100	175	27	22
150	242	30	33

Part Number Configuration



Standard Part Numbers

Model	Linear Range (mm)	Accuracy
PSIL30-0-50A1	50	.5% FSO
PSIL30-0-100B1	100	.25% FSO
PSIL30-0-150A1	150	.5% FSO

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