PSIL20 Series

- Industrial Inductive Linear Sensor
- Non-Contact technology
- 0-2” Travel
- -20-80°C Operating Temperature
- +-.5% Repeatability FS
- Analog Output (2-10V)
- IP67
- Customizable Stroke
- +-3% accuracy

DESCRIPTION

The PSIL20 is a non-contact linear sensor manufactured for industrial applications requiring long term stability in a harsh environment. This patented inductive technology allows customization for specific applications that may require small objects to measure. The potted plastic design is made for higher temperature applications where dust, humidity, and/or grease might be an issue.

The PSIL20 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.

APPLICATIONS

- Industrial Automation
- Money Dispensing Equipment
- Automotive
- Medical Device
- Aerospace

Maximum Environmental Ratings

Operating Temperature ……..... -20°C to 80°C
Storage Temperature Range ……..-25°C to 80°C

Supply Voltage…….……...11-30VDC
Dimensions ……..... 27 X 28 X 21mm

PSIL20 Operational Characteristics

V_+ = 5V, V_- = 0V, Temperature = 25°C					
PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Supply Voltage	V_{DD}	12	24	30	V
Supply Current	I_{DD}	12	15	25	mA
Upper Output Voltage (Note 1)	V_{OUT}	9.8	10	10.2	V
Lower Output Voltage	V_{OUT}	.18	2	.22	V
Linearity (Note 2)		-0.25		0.25	%FS
Temperature Error (Null and Span) (Note 3)		-2		+2	%FS
Response Time	t_R		1	10	ms
Total Error Band (Note 4)		-3		3	%FS
Compensated Temperature Range	C	10		50	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 10-50C

Application Information

Package

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

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.

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.

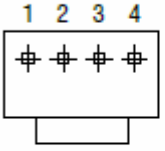
Linear ranges

Standard stroke 15, 25, and 50mm. Custom linear displacement ranges are available for OEM customers.

Electrical Connections

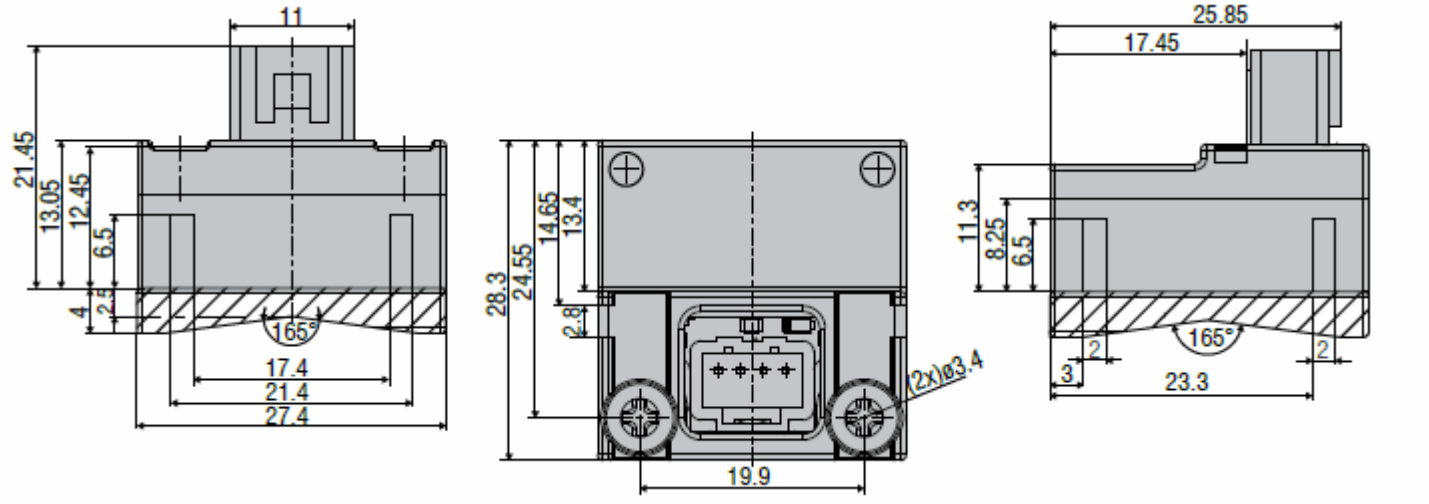
Wire Color	Connection
Brown	V+
White	GND
Black	Output
Blue	Out GND

Pin assignment
View connector side



1: + supply 3: GND
2: GND Out 4: + Out
GND pins internally connected

Mechanical Dimensions (inches)



Part Number Configuration

PSIL20-1 - 25A 1

Model

0=.5-4.5V, 1=2-10V,

1=.5M cable , 2= 3= .5M 90,
3= AMP Connector 4= Custom

Type (A=Round Magnet, X=Custom)

Linear Range 25=25mm, 75=mm

Standard Part Numbers

Model	Linear Range (mm)	Type
PSIL20-0-50A1	50	.5M Cable
PSIL20-0-75A1	75	.5M Cable
PSIL20-0-25A1	25	.5M 90

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