

ILPS-19 SERIES LINEAR VARIABLE INDUCTIVE POSITION SENSOR

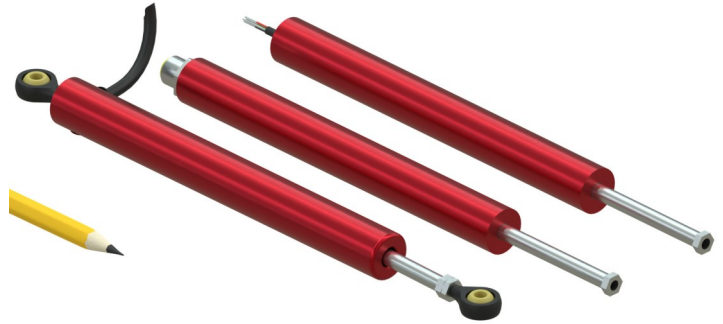
Rugged Frictionless LVIT Linear Position Sensor

FEATURES

- Sensing element is wear-free
- Excellent stroke-to-length ratio
- Stroke lengths from 25 to 200 mm (1 to 8 inches)
- 19 mm (0.75 inch) diameter housing sealed to IP67
- A more robust alternative to Linear Potentiometers

APPLICATIONS

- Laboratory R&D Testing
- Industrial Test Stands
- Factory Automation



OVERVIEW

Harold G. Schaevitz Industries (HGSi) ILPS-19 series Linear Variable Inductive Transducer (LVIT) Position Sensor with Rod End Joints are used to monitor and track the linear motion or position of a target. These ruggedized sensors are ideal for use in industrial and laboratory applications including automotive R&D, motorsports, industrial, motion control, medical, military and aerospace.

The inductive coil and spoiler combination is a contactless solution, eliminating the wear and dithering issues commonly experienced with Potentiometer type sensors. The amplifier electronics are contained within the housing, no need for an external signal conditioner.

The ILPS-19 series sensor is made from industrial duty materials for resistance to dust, water, temperature, shock, and vibration.

SPECIFICATIONS

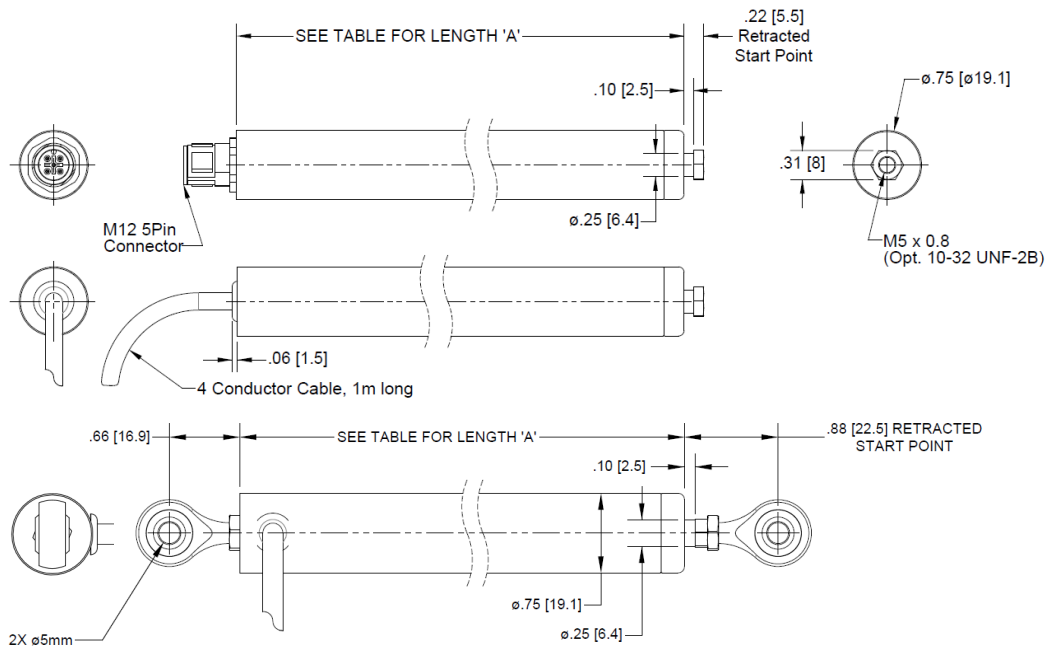
Analog I/Os:	0 to 3 VDC output (5 to 30 VDC power, ≤ 35 mA) 0.5 to 4.5 VDC output (8 to 30 VDC power, ≤ 35 mA) 0 to 5 VDC output (8 to 30 VDC power, ≤ 35 mA) 0 to 10 VDC output (12 to 30 VDC power, ≤ 35 mA) 4 to 20 mA output (18 to 30 VDC power, ≤ 60 mA)
Linearity Error:	$\leq \pm 0.15\%$ of FSO
Resolution:	0.025% of FS
Repeatability:	0.025% of FS
Bandwidth:	300 Hz update rate (nominal)
Pretravel:	2.5mm (0.100") (nominal)
Overtravel:	2.5mm (0.100") (nominal)
Operating Temperature:	Voltage Output: -40 to +105°C (-40 to +220°F) Current Output: -20 to +75°C (-5 to +167°F)
Temperature Coefficient:	$\leq \pm 0.015\%$ of FS / °C
Life Expectancy:	> 100 million cycles
Integral Cable:	28 AWG, stranded, FEP insulated, foil shielded, with drain wire, PUR polyurethane outer jacket
Integral Cable Temp Rating:	-40 to +85°C (-40 to +185°F)
Shock Rating:	1000g, 11 ms
Vibration Rating:	5 to 20 Hz, 0.5 inch p-p; 20 to 2000 Hz, 4.2 g p-p
IP Rating:	IEC IP67
Country of Manufacture:	Made in the USA



LINEAR POSITION SENSOR

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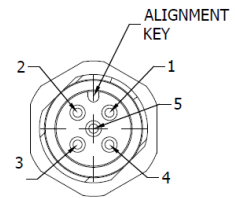
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M12 Connector, Axial Position

Integral Cable, Axial Position

Integral Cable, Radial Position



DIMENSIONS

Measuring Range	Length 'A'	Housing O.D.
1.0 inch [25 mm]	3.74 inches [95.0 mm]	0.75 inches [19.0 mm]
2.0 inches [50 mm]	4.74 inches [120.4 mm]	0.75 inches [19.0 mm]
3.0 inches [75 mm]	5.74 inches [145.8 mm]	0.75 inches [19.0 mm]
4.0 inches [100 mm]	6.74 inches [171.2 mm]	0.75 inches [19.0 mm]
6.0 inches [150 mm]	8.74 inches [222.0 mm]	0.75 inches [19.0 mm]
8.0 inches [200 mm]	10.74 inches [272.8 mm]	0.75 inches [19.0 mm]

WIRING PIN OUT

	M12 Connector	Integral Cable
DC Power In	Pin #1	Red
Ground	Pin #2	Black
Output (Voltage)	Pin #3	Green
Output (Current)	Pin #4	Green
SenSet (Calibration)	Pin #5	White

ORDERING INFORMATION

Model	Range	Position	Termination	Output	Housing
ILPS-19	-□□□	- □	- □□	- □□	- □
	025 25 mm 050 50 mm 075 75 mm 100 100 mm 150 150 mm 200 200 mm	A Axial R Radial	00 Cable, 1 m 01 M12 Connector*	03 0 to 3 VDC 05 0.5 to 4.5 VDC 10 0 to 10 VDC 20 4 to 20 mA 50 0 to 5 VDC	A Aluminum S Stainless Steel

* Axial position only

ORDERING EXAMPLE

ILPS-19-025-A-00-50-A: 0 to 25 mm Range, 1 m Axial Cable, 0 to 5 VDC Output, Aluminum Housing

