

Use for:
 Factory Automation Systems
 PLC Position Feedback
 Test and Measurement
 Packaging Equipment

GHS-19 Series

Spring-Loaded LVIT Linear Position Sensors

Low Cost, Compact, High Performance Gaging Probes

The GHS-19 series of LVIT (Linear Variable Inductive Transducer) spring-loaded position sensors by Alliance Sensors Group are contactless devices designed for dimension measurements in QA labs, or position measuring applications in factory automation systems and in various industrial and commercial applications such as automotive testing, mil/aero test stands, robotic arms, and packaging equipment, where the sensing element cannot be attached to the object being measured. GHS-19s are offered in nominal full scale ranges from 6.35 to 100 mm (0.25 to 4.0 inches) with excellent resolution and high stroke-to-body-length ratios. The maximum tip contact force on the item being measured is 1 pound.

GHS-19 sensors have a 0.75 inch (19 mm) diameter aluminum or stainless steel body with a 1/2-20 UNF-2A thread 1.5 inches (38 mm) long with two 19 mm (0.75 inch) hex jam nuts for drop-in installation in place of a spring-loaded DC LVDT gage head. These sensors utilize a probe equipped with a No. 9 contact tip, and are offered with a PT02-10-6P connector. Operating from a variety of DC voltages, these sensors are available with a choice of one of four analog outputs. They all include ASG's proprietary SenSet™ field calibration feature.

Additional information can be found at www.alliancesensors.com.

Features:

- Spring-loaded LVIT Technology™ (Linear Variable Inductance Transducer)
- Contactless operation prevents internal wearout from dithering or rapid cycling
- Excellent stroke-to-body-length ratio
- Proprietary SenSet™ Field Adjustable Range Scaling

Specifications:

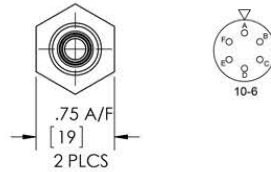
Analog I/Os	0 - 5 or 0.5 - 4.5 VDC output with 8 - 30 VDC input, 35 mA max. 0 - 10 VDC output with 12 - 30 VDC input, 35 mA max. 4 - 20 mA (3-wire) output with 18 - 30 VDC input, 60 mA max. (75 C max.)
Measuring Ranges	6.35 mm to 100 mm (0.25 to 4.0 inches) full scale (nominal)
Linearity Error	±0.15% of Full Scale Output (FSO) typical, ±0.25% max.
Resolution	0.025% of FS
Operating Temperature	-20 to 85 C (-40 to 105 C Extended Range)
Temperature Coefficient	±0.015% of FS/K
Vibration	5-20 Hz, 0.5 inch p-p; 20-2000 Hz, 4.2 g p-p
Shock	1000 g, 11 msec.
Terminations	IEC IP-67
Humidity	95% RH, non-condensing

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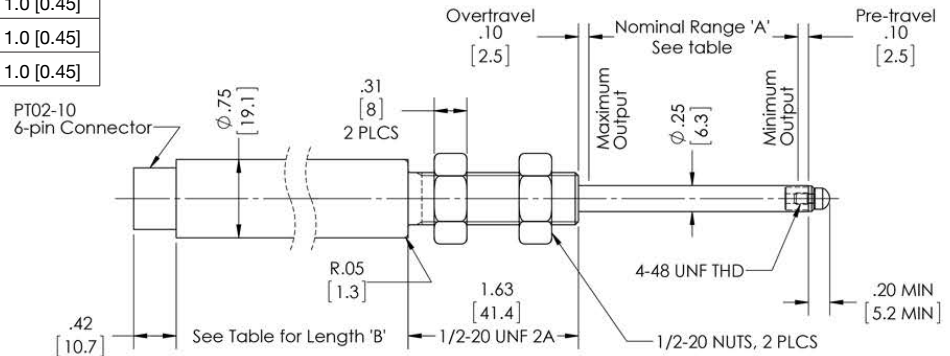
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'A' Nominal Range	'B' Body Length	Spring Rate	Max. Force
inches [mm]	inches [mm]	Lbf/in [kgf/cm]	Lbf [kgf]
0.25 [6.35]	3.50 [88.9]	0.75 [0.134]	0.9 [0.41]
0.5 [12.7]	3.50 [88.9]	0.75 [0.134]	0.9 [0.41]
1.0 [25.4]	4.00 [101.6]	0.75 [0.134]	0.9 [0.41]
2.0 [50.8]	5.08 [129.0]	0.43 [0.077]	1.0 [0.45]
3.0 [76.2]	6.16 [156.5]	0.30 [0.054]	1.0 [0.45]
4.0 [101.6]	7.25 [184.1]	0.23 [0.041]	1.0 [0.45]



Wiring Table	
I/O Function	PT02-10 Pin
+DC Power Input	E
Common Ground	D
Voltage Output	A
Current Output	
SenSet™	B



Series	Output	Housing Diameter	Range (mm)	Electrical Termination		Output	Housing Material
				Axial or Radial	Connection		
GHS	X-	XX-	XXX-	X-	XX-	XX	X-
	E- Voltage	19- 19 mm	006 (6.25 mm)	A- Axial	00- 1 m cable	05- 0.5 to 4.5 V DC	A- Aluminum
	I- Current		013		01- 5-pin M-12	06- 4.5 to 0.5 V DC	S- 300 Series SS
			025		02- 6-pin PT02	10- 0 to 10.0 V DC	
			050		03- 3 m cable	11- 10.0 to 0 V DC	
			075			20- 4 to 20 mA DC	
			100			21- 20 to 4 mA DC	
						50- 0 to 5 V DC	
						51- 5 to 0 V DC	

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