

**For use in:**  
Factory Automation  
PLC Position Feedback  
Test and Measurement  
Packaging Equipment

# GHS-19 Series

## Spring-Loaded LVIT Linear Position Sensor

Low Cost, Compact, High Performance Gaging Probes

The GHS-19 series of LVIT (Linear Variable Inductance Transducer) spring-loaded position sensors by Alliance Sensors Group are contactless devices designed for dimensional 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. An ideal solution for when the sensing element cannot be attached to the object being measured. GHS-19s are offered in nominal full scale ranges from 6.4 to 100 mm (0.25 to 4.0 inches) with excellent resolution and high stroke-to-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 (6-pin) 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 recalibration feature.

### Features:

- Spring-loaded LVIT Technology™ (Linear Variable Inductance Transducer)
- Contactless operation prevents internal wearout from dithering or rapid cycling
- Excellent stroke-to-length ratio
- Proprietary SenSet™ field adjustable range scaling

### Specifications:

**Analog I/Os:** 0-5 V or 0.5-4.5 V output with 8 -30 V input, 35 mA max.

0-10 V output with 12-30 V input, 35 mA max.

4-20 mA (3-wire) output with 18-30 V input, 60 mA max (75 C max).

**Measuring Ranges:** 6.4 to 100 mm (0.25 to 4.0 inches) Full Scale (nominal)

**Linearity Error:** ± 0.15% of FSO typical, ± 0.25% of FSO max

**Resolution:** 0.025% of FSO

**Operating Temperature:** -20 to 85 C (-40 to 105 C extended temperature range)

**Temperature Coefficient:** <±0.015% of FS/deg C

**Vibration:** 5-20 Hz, 0.5 inch p-p; 20-2000 Hz, 4.2 g p-p

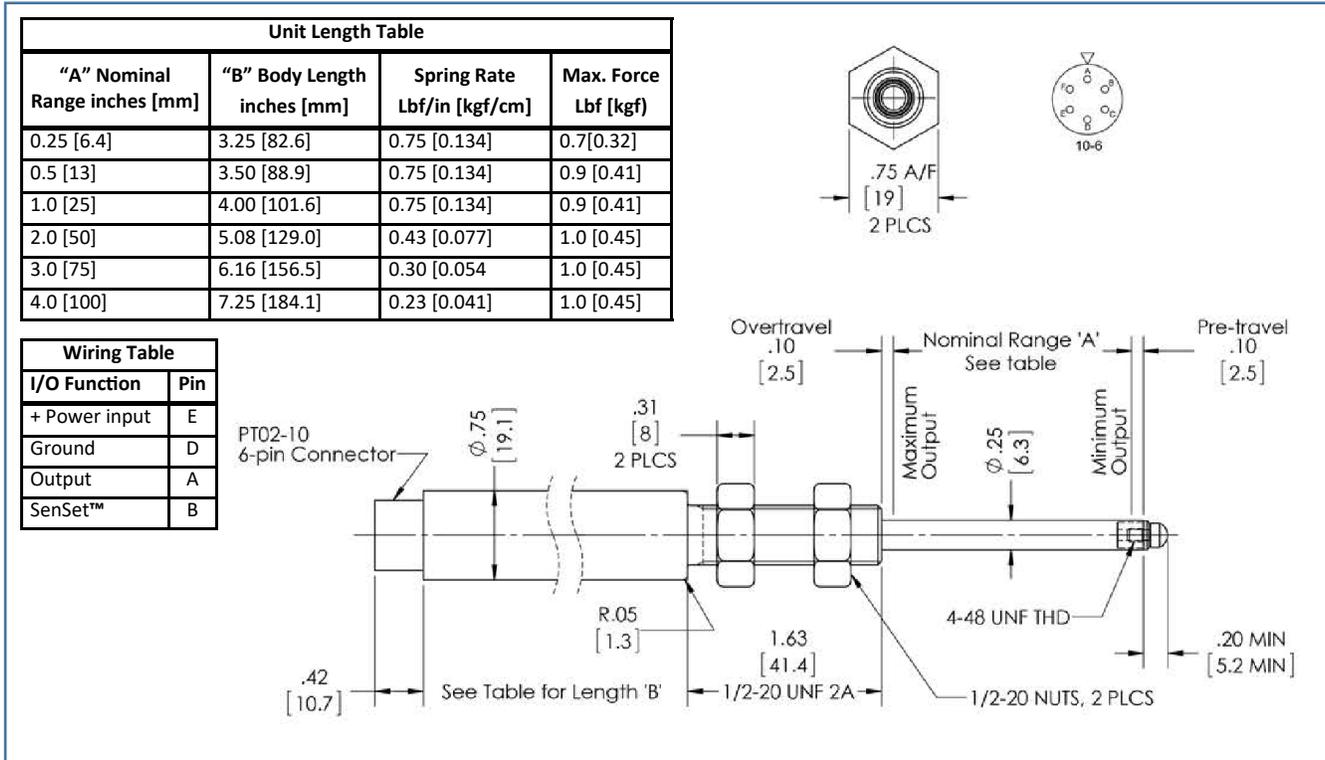
**Shock:** 1000 g, 11 msec.

**Terminations:** IEC IP-67

**Humidity:** 95% RH, non-condensing

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## Ordering Information:

Series	Output Type	Body Diameter	Range, Metric	Termination Direction	Termination	Output	Housing Material
GHS	X-	XX-	XXX-	X-	XX-	XX-	X-
	E- Voltage	19- 19 mm	006- 6.35 mm	A- Axial	00- 1 m cable	05- 0.5 to 4.5 VDC	A- Aluminum
	I- Current		013- 13 mm		01- 5-pin M-12	06- 4.5 to 0.5 VDC	S- 300 Series SS
			025- 25 mm		02- 6-pin PT02	10- 0 to 10 VDC	
			050- 50 mm		03- 3 m cable	11- 10 to 0 VDC	
			075- 75 mm			20- 4 to 20 mA	
			100- 100 mm			21- 20 to 4 mA	
						50- 0 to 5 VDC	
						51- 5 to 0 VDC	

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