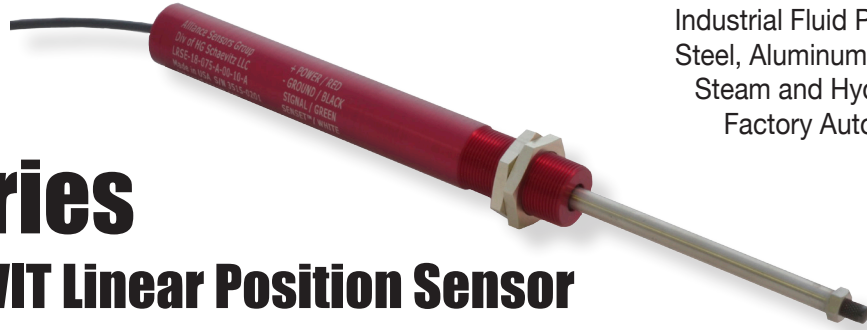




**For use in:**

Industrial Fluid Power Equipment  
Steel, Aluminum, and Paper Mills  
Steam and Hydro Power Plants  
Factory Automation Systems



# LRS-18 Series

## Spring Loaded LVIT Linear Position Sensor

Long Lasting, Contactless, Inductive Sensors

The LRS-18 series of LVIT (Linear Variable Inductance Transducer) spring loaded position sensors by Alliance Sensors Group are contactless devices designed for dimension or position measuring applications in factory automation 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. LRS-18s are offered in full scale ranges from 12.5 to 100 mm (0.5 to 4.0 inches) with excellent resolution and high stroke-to-body-length ratios. The maximum tip force on the item being measured is 1 pound. LRS-18 sensors have a 19 mm (0.75 inch) diameter aluminum or stainless steel body with an M18 x 1 thread and come with two hex jam nuts for easy installation in place of an 18 mm analog prox sensor. These sensors use a 0.25 inch diameter probe equipped with an AGD No. 9 contact tip, and are offered with either an axial cable or a connector. Operating from a variety of DC voltages, the sensors are available with a choice of four analog outputs and they all include ASG's proprietary SenSet™ field calibration feature.

Additional information can be found at [www.alliancesensors.com](http://www.alliancesensors.com).

### Features:

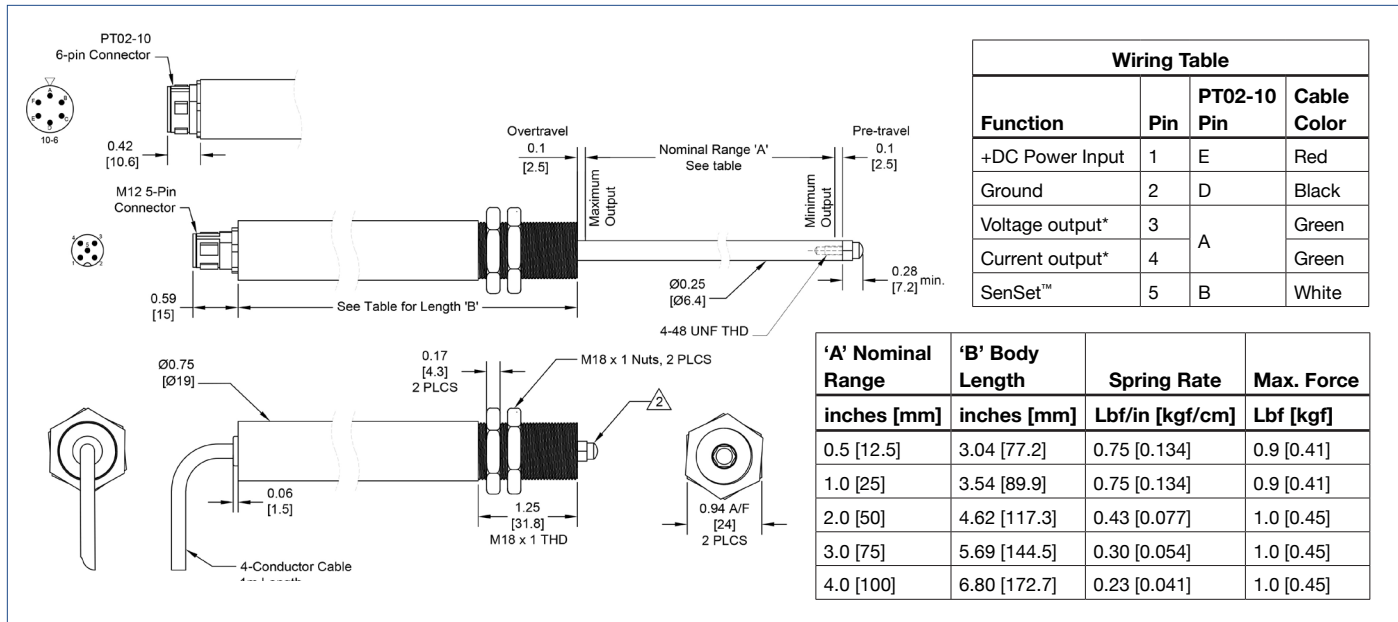
- Spring loaded LVIT Technology™ (Linear Variable Inductance Transducer)
- Ranges from 0.5 to 4.0 inches (12.5 to 100 mm)
- Contactless operation prevents internal wearout from dithering or rapid cycling
- Excellent stroke-to-body-length ratio
- Proprietary SenSet™ field adjustable range scaling

### Specifications:

<b>Analog I/Os</b>	0 - 5 V or 0.5 - 4.5 V DC output with 8 - 30 V input, 35 mA max. 0 - 10 V DC 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.)
<b>Measuring Ranges</b>	12.5 mm to 100 mm (0.5 to 4.0 inches) full scale
<b>Linearity Error</b>	±0.15% of Full Scale Output (FSO) typical, ±0.25% max.
<b>Resolution</b>	0.025% of FS
<b>Operating Temperature</b>	-20 to 85 C (-40 to 105 C Extended Range)
<b>Temperature Coefficient</b>	≤±0.015% of FS/K
<b>Vibration</b>	5-20 Hz 0.5 inch p-p; 20-2000 Hz 4.2 g p-p
<b>Shock</b>	1000 g, 11 msec.
<b>Terminations</b>	IEC IP-67
<b>Humidity</b>	95% RH, non-condensing

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# LRS-18 Series



## Ordering Information

Series	Output	Housing Thread	Range (mm)	Electrical Termination		Output	Housing Material
				Axial or Radial	Termination		
LRS	X-	XX-	XXX-	X-	XX-	XX	X-
	E- Voltage	18- M18	013 (12.7 mm)	A- Axial	00- 1 m cable	05 - 0.5-4.5 VDC	A- Aluminum
	I- Current		025		01- 5-pin M12	06 - 4.5-0.5 VDC	S- 300 Series SS
			050		02- 6-pin PT02	10 - 0-10 VDC	
			075		03- 3 m cable	11 - 10-0 VDC	
			100			20 - 4-20 mA	
						21 - 20-4 mA	
						50 - 0-5 VDC	
						51 - 5-0 VDC	

## Off The Shelf Connection Solutions



Standard ADG Contact Tip



Industry Standard M18 x 1 Threads



Industry Standard Connectors and Cable Options

**ALLIANCE SENSORS GROUP**  
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