



For Use in:
Packaging Machinery
Chute/Gate Position
Factory Automation
Automotive Testing

LRL-27 Series

LVIT Linear Position Sensor for Extended Ranges

Long Lasting, Contactless, Inductive Sensors

Alliance Sensor Group's LRL-27 series LVIT (Linear Variable Inductance Transducer) contactless position sensors complement the LR series devices with extended ranges up to 18 inches (450 mm) in a compact package. These sensors are designed for use in factory automation systems and a wide variety of industrial and commercial applications. Cost effective high-end performance and excellent stroke-to-length ratios make these sensors ideal choices for practically any industrial application.

LRL-27 sensors are offered in 6 nominal ranges from 200 to 450 mm (8 to 18 inches). Operated from a variety of DC voltages, these sensors offer a user a choice of four analog outputs and include ASG's proprietary SenSet™ field adjustable range scaling feature. LRL-27 products are available with either a radial exiting cable and two spherical rod eye ends with axial cable or connector terminations.

The LR series also include a smaller body version, the LR-19, for applications where a reduced body envelope is required or the LR-27 for shorter stroke lengths from 50 to 150 mm. Additional information can be found at www.alliancesensors.com.

Features:

- LVIT Technology™ (Linear Variable Inductance Transducer)
- Contactless operation
- 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	200 mm to 450 mm (8 to 18 inches) full scale (nominal)
Linearity Error	±0.15% of Full Scale Output (FSO) typical, ±0.25% max.
Resolution	0.025% of FS
Update Rate	300 Hz nominal
Operating Temperature	-20 C to 85 C (-40 C to 105 C Extended 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 ms
Terminations	IEC IP-67
Humidity	95% RH, non-condensing

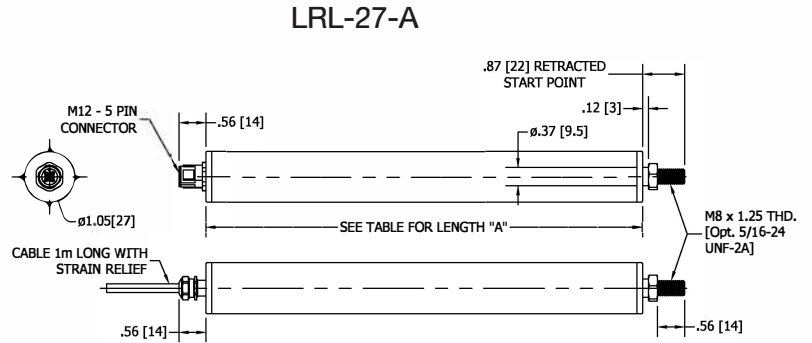
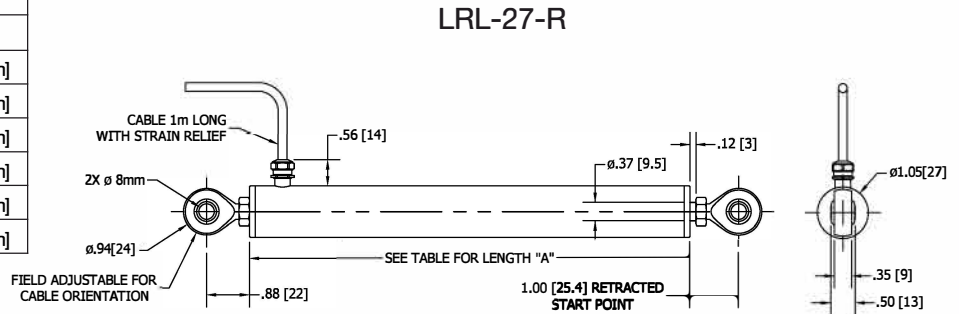
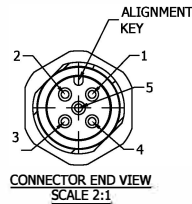
LRL-27 Series



Unit Length Table	
Linear Range	Length "A"
8.0 inches [200 mm]	11.50 inches [292.1 mm]
10.0 inches [250 mm]	13.50 inches [342.9 mm]
12.0 inches [300 mm]	15.50 inches [393.7 mm]
14.0 inches [350 mm]	17.50 inches [444.5 mm]
16.0 inches [400 mm]	19.50 inches [495.3 mm]
18.0 inches [450 mm]	21.50 inches [546.1 mm]

Wiring Table - LRL-27-A		
Function	M-12 Pin	Cable Color
+ Power input	1	Red
Ground	2	Black
Voltage output	3	Green
Current output	4	Green
SenSet™	5	White

Wiring Table - LRL-27-R	
Function	Cable Color
+ Power input	Red
Ground	Black
Analog output	Green
SenSet™	White



Ordering information:

Series	Output	Housing Diameter	Range (mm)	Electrical Terminal		Output	Housing Material
				Axial or Radial	Termination		
LRL	X-	XX-	XXX-	X-	XX-	XX-	X
	E - Voltage	27 - 27 mm	200	A - Axial	00 - 1 m cable	05 - 0.5 to 4.5 V	A - Aluminum
	I - Current		250	R - Radial (cable only)	01 - 5-pin M12	06 - 4.5 to 0.5 V	S - 300 Series SS
			300			10 - 0 to 10.0 V	
			350			11 - 10.0 to 0 V	
			400			20 - 4 to 20 mA	
			450			21 - 20 to 4 mA	
						50 - 0 to 5 V	
						51 - 5 to 0 V	

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