

For use in:
 Packaging Machinery
 Factory Automation
 Automotive Testing
 OEM Test Standards

LR-27 Series

LVIT Linear Position Sensor

Long Lasting, Contactless, Inductive Sensors

Alliance Sensor Group's LR-27 series LVIT (Linear Variable Inductance Transducer) contactless position sensors are heavy duty contactless devices designed for factory automation systems and a variety of industrial and commercial application such as solar cell positioners, wind turbine prop pitch and brakes, chute or gate positioners on off-road or agri-vehicles, and packaging machinery. The modular design, high end performance, and excellent stroke to length ratio make the LR-27 sensor an ideal choice for in-plant or mobile equipment OEMs.

LR-27 series sensors are currently offered in 5 full scale ranges from 50 mm to 150 mm (2 to 6 inches). Operated from a variety of DC voltages, these sensors offer a choice of four analog outputs and include ASGT's proprietary SenSet™ field recalibration feature. LR-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 includes a smaller body version, the LR-19, for applications where a reduced body envelope is required or the LRL-27 for longer strokes lengths up to 450 mm. Additional information can be found at www.alliance-sensors.com.

Features:

- LVIT Technology™ (Linear Variable Inductance Transducer)
- Contactless operation prevents wearout from dithering or cycling
- Excellent stroke-to-length ration
- 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	50 mm to 150 mm (2 to 6 inches) full scale (nominal)
Linearity Error	<± 0.15% of Full Scale Output (FSO) typical, ±0.25% max
Resolution	0.025% of FSO
Update Rate	300 Hz nominal
Operating Temperature	-20 to 85 C (-40 to 105 C extended temperature range)
Temperature Coefficient	<± 0.15% 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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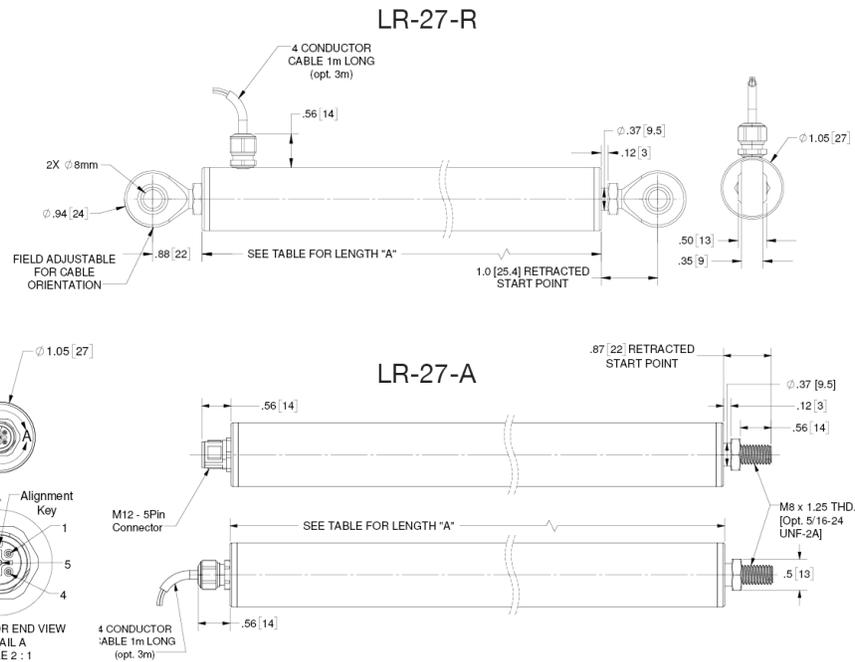
LR-27 Series



Unit Length Table	
Nominal Range	Length "A"
1.0 inch [25 mm]	4.12 inches [104.6 mm]
2.0 inches [50 mm]	5.12 inches [130.0 mm]
3.0 inches [75 mm]	6.12 inches [155.4 mm]
4.0 inches [100 mm]	7.12 inches [180.8 mm]
6.0 inches [150 mm]	7.412 inches [231.6 mm]

Wiring Table—LR-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—LR-27-A	
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		
LR	X-	XX-	XXX-	X-	XX-	XX-	X-
LR	E- Voltage	27– 27 mm	050	A- Axial	00- 1-m cable	05- 0.5 to 4.5 V	A- Aluminum
	I- Current		075	R- Radial	01- 5-pin M12	06– 4.5 to 0.5 V	S– 300 Series SS
			100			10- 0 to 10.0 V	
			150			11– 10.0 to 0 V	
						20– 4 to 20 mA	
						21– 20 to 4 mA	
						50– 0 to 5 V	
						51– 5 to 0 V	

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