

LRE27/LRI27 LVIT Linear Position Sensors


LRE27-075R-00-10A

Low cost, compact, high performance linear position sensors



The LRE-27/LRI-27 series of LVIT (Linear Variable Inductance Transducer) by Alliance Sensor Group are heavy duty contactless position sensors for factory automation systems and a variety of industrial and commercial uses. Typical applications include the following:

- Solar cell positioners
- Wind turbine prop pitch and brakes
- Chute or gate positioners for off-road or agri-vehicles
- Packaging machinery

The modular design and excellent stroke-to-length ratio make LRE-27/LRI-27 sensors an ideal choice for in-plant or mobile equipment OEMs.

LRE-27/LRI-27 series sensors are currently offered in 5 full-scale ranges from 1 to 6 in [25.4 to 152.4 mm]. Operating from a variety of DC voltages, models are available with either 0-10 V or 4-20 mA output (see table below). All include ASG's proprietary SenSet™ field calibration feature.

LRE-27/LRI-27 products are available with a radial exiting cable and two spherical rod eye ends.

The LR series also include a smaller body version, the LRE-19/LRI-19, for applications where a reduced body envelope is required as well as the LRLE-27/LRLI-27 (for longer strokes lengths up to 18 in [457.2 mm]).

Features

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



LRE27/LRI27 Series Linear Position Sensors Selection Chart

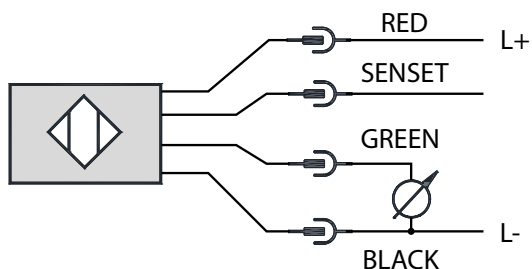
Part Number	Price	Drawing Link	Nominal Range (in [mm])	Body Length (in [mm])
0-10V models				
LRE27-025R-00-10A	\$505.00	PDF	1.0 [25.4]	4.12 [104.6]
LRE27-050R-00-10A	\$530.00	PDF	2.0 [50.8]	5.12 [130.0]
LRE27-075R-00-10A	\$555.00	PDF	3.0 [76.2]	6.12 [155.4]
LRE27-100R-00-10A	\$580.00	PDF	4.0 [101.6]	7.12 [180.8]
LRE27-150R-00-10A	\$630.00	PDF	6.0 [152.4]	9.12 [231.6]
4-20mA models				
LRI27-025R-00-20A	\$505.00	PDF	1.0 [25.4]	4.12 [104.6]
LRI27-050R-00-20A	\$530.00	PDF	2.0 [50.8]	5.12 [130.0]
LRI27-075R-00-20A	\$555.00	PDF	3.0 [76.2]	6.12 [155.4]
LRI27-100R-00-20A	\$580.00	PDF	4.0 [101.6]	7.12 [180.8]
LRI27-150R-00-20A	\$630.00	PDF	6.0 [152.4]	9.12 [231.6]

LRE27/LRI27 Series Linear Position Sensors Specifications

Analog I/Os	0-10V output with 12-30V power source, 35mA max; 4-20 mA (3-wire) output with 18-30V power source, 60mA max, 167°F [75°C] max
Measuring Ranges	1 to 6 in [25.4 to 152.4 mm] full scale (nominal)
Linearity Error	≤ ±0.15% of FSO
Resolution	0.025% of FS
Update Rate	300Hz nominal
Operating Temperature	-4 to 185°F [-20 to +85°C]; -40 to +221°F [-40 to +105°C] extended range
Temperature Coefficient	≤ ±0.015% of FS/°C
Vibration	5-20 Hz, 0.5 in peak-to-peak; 20-2000 Hz, 4.2 g peak-to-peak
Shock	1000g, 11ms
Terminations	IEC IP-67
Humidity	95% RH, non-condensing
Connection	1M, PUR, 4 conductor, 24AWG

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Wiring Diagram



Wiring Table	
Function	Cable Color
+DC Power Input	Red
Common Ground	Black
Analog Output	Green
SenSet™	White