

# 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

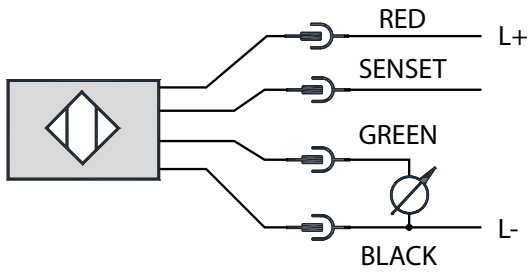
Part Number	Price	Drawing Link	Nominal Range (in [mm])	Body Length (in [mm])
<b>0-10V models</b>				
<a href="#">LRE27-025R-00-10A</a>	\$455.00	<a href="#">PDF</a>	1.0 [25.4]	4.12 [104.6]
<a href="#">LRE27-050R-00-10A</a>	\$475.00	<a href="#">PDF</a>	2.0 [50.8]	5.12 [130.0]
<a href="#">LRE27-075R-00-10A</a>	\$502.00	<a href="#">PDF</a>	3.0 [76.2]	6.12 [155.4]
<a href="#">LRE27-100R-00-10A</a>	\$530.00	<a href="#">PDF</a>	4.0 [101.6]	7.12 [180.8]
<a href="#">LRE27-150R-00-10A</a>	\$555.00	<a href="#">PDF</a>	6.0 [152.4]	9.12 [231.6]
<b>4-20mA models</b>				
<a href="#">LRI27-025R-00-20A</a>	\$455.00	<a href="#">PDF</a>	1.0 [25.4]	4.12 [104.6]
<a href="#">LRI27-050R-00-20A</a>	\$475.00	<a href="#">PDF</a>	2.0 [50.8]	5.12 [130.0]
<a href="#">LRI27-075R-00-20A</a>	\$502.00	<a href="#">PDF</a>	3.0 [76.2]	6.12 [155.4]
<a href="#">LRI27-100R-00-20A</a>	\$530.00	<a href="#">PDF</a>	4.0 [101.6]	7.12 [180.8]
<a href="#">LRI27-150R-00-20A</a>	\$555.00	<a href="#">PDF</a>	6.0 [152.4]	9.12 [231.6]

### LRE27/LRI27 Series Linear Position Sensors Specifications

<b>Analog I/Os</b>	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
<b>Measuring Ranges</b>	1 to 6 in [25.4 to 152.4 mm] full scale (nominal)
<b>Linearity Error</b>	≤ ±0.15% of FSO
<b>Resolution</b>	0.025% of FS
<b>Update Rate</b>	300Hz nominal
<b>Operating Temperature</b>	-4 to 185°F [-20 to +85°C]; -40 to +221°F [-40 to +105°C] extended range
<b>Temperature Coefficient</b>	≤ ±0.015% of FS/°C
<b>Vibration</b>	5-20 Hz, 0.5 in peak-to-peak; 20-2000 Hz, 4.2 g peak-to-peak
<b>Shock</b>	1000g, 11ms
<b>Terminations</b>	IEC IP-67
<b>Humidity</b>	95% RH, non-condensing
<b>Connection</b>	1M, PUR, 4 conductor, 24AWG

# LRE27/LRI27 LVIT Linear Position Sensors

## Wiring Diagram



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