

# LRLE27/LRLI27 LVIT Linear Position Sensors


**LRLE27-400R-00-10A**


## Low cost, compact, high performance linear position sensors

Alliance Sensor Group's LRLE-27/LRLI-27 series of LVIT (Linear Variable Inductance Transducer) contactless position sensors complements the LR series devices with extended ranges up to 18in [450mm] 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.

LRLE-27/LRLI-27 sensors are offered in six nominal ranges from 8 to 18 in [203.2 to 457.2 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.

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

The LRLE-27/LRLI-27 series also includes smaller body versions, the LRE-19/LRI-19. Those versions are suitable for use in applications where a reduced body envelope is required. Use the LRE-27/LRI-27 for shorter stroke lengths from 2 to 6 in [50.8 to 152.4 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



### LRLE27/LRLI27 Series Linear Position Sensors Selection Chart

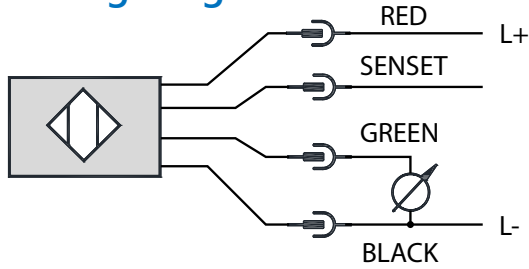
Part Number	Price	Drawing Link	Nominal Range (in [mm])	Body Length (Dimension A) (in [mm])
<b>0-10V models</b>				
<a href="#">LRLE27-200R-00-10A</a>	\$625.00	<a href="#">PDF</a>	8.0 [203.2]	11.50 [292.1]
<a href="#">LRLE27-250R-00-10A</a>	\$651.00	<a href="#">PDF</a>	10.0 [254.0]	13.50 [342.9]
<a href="#">LRLE27-300R-00-10A</a>	\$684.00	<a href="#">PDF</a>	12.0 [304.8]	15.50 [393.7]
<a href="#">LRLE27-350R-00-10A</a>	\$720.00	<a href="#">PDF</a>	14.0 [355.6]	17.50 [444.5]
<a href="#">LRLE27-400R-00-10A</a>	\$757.00	<a href="#">PDF</a>	16.0 [406.2]	19.50 [495.3]
<a href="#">LRLE27-450R-00-10A</a>	\$790.00	<a href="#">PDF</a>	18.0 [457.2]	21.50 [546.1]
<b>4-20mA models</b>				
<a href="#">LRLI27-200R-00-20A</a>	\$625.00	<a href="#">PDF</a>	8.0 [203.2]	11.50 [292.1]
<a href="#">LRLI27-250R-00-20A</a>	\$651.00	<a href="#">PDF</a>	10.0 [254.0]	13.50 [342.9]
<a href="#">LRLI27-300R-00-20A</a>	\$684.00	<a href="#">PDF</a>	12.0 [304.8]	15.50 [393.7]
<a href="#">LRLI27-350R-00-20A</a>	\$720.00	<a href="#">PDF</a>	14.0 [355.6]	17.50 [444.5]
<a href="#">LRLI27-400R-00-20A</a>	\$757.00	<a href="#">PDF</a>	16.0 [406.2]	19.50 [495.3]
<a href="#">LRLI27-450R-00-20A</a>	\$790.00	<a href="#">PDF</a>	18.0 [457.2]	21.50 [546.1]

### LRLE-27/LRLI-27 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>	8 to 18 in [203.2 to 457.2 mm] full scale (nominal)
<b>Linearity Error</b>	≤ ±0.15% of Full Scale Output (FSO) typical, ±0.25% max
<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

# LRLE27/LRLI27 LVIT Linear Position Sensors

## Wiring Diagram



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