

LRLE-27/LRLI-27 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

Alliance Sensors Group LRLE-27/LRLI-27 Series Linear Position Sensors Selection Chart

Part Number	Price	Nominal Range (in [mm])	Body Length (Dimension A) (in [mm])
0-10 V models			
LRLE27-200R-00-10A	\$533.00	8.0 in [203.2 mm]	11.50 in [292.1 mm]
LRLE27-250R-00-10A	\$559.00	10.0 in [254.0 mm]	13.50 in [342.9 mm]
LRLE27-300R-00-10A	\$589.00	12.0 in [304.8 mm]	15.50 in [393.7 mm]
LRLE27-350R-00-10A	\$624.00	14.0 in [355.6 mm]	17.50 in [444.5 mm]
LRLE27-400R-00-10A	\$659.00	16.0 in [406.24mm]	19.50 in [495.3 mm]
LRLE27-450R-00-10A	\$689.00	18.0 in [457.2 mm]	21.50 in [546.1 mm]
4-20 mA models			
LRLI27-200R-00-20A	\$533.00	8.0 in [203.2 mm]	11.50 in [292.1 mm]
LRLI27-250R-00-20A	\$559.00	10.0 in [254.0 mm]	13.50 in [342.9 mm]
LRLI27-300R-00-20A	\$589.00	12.0 in [304.8 mm]	15.50 in [393.7 mm]
LRLI27-350R-00-20A	\$624.00	14.0 in [355.6 mm]	17.50 in [444.5 mm]
LRLI27-400R-00-20A	\$659.00	16.0 in [406.24mm]	19.50 in [495.3 mm]
LRLI27-450R-00-20A	\$689.00	18.0 in [457.2 mm]	21.50 in [546.1 mm]

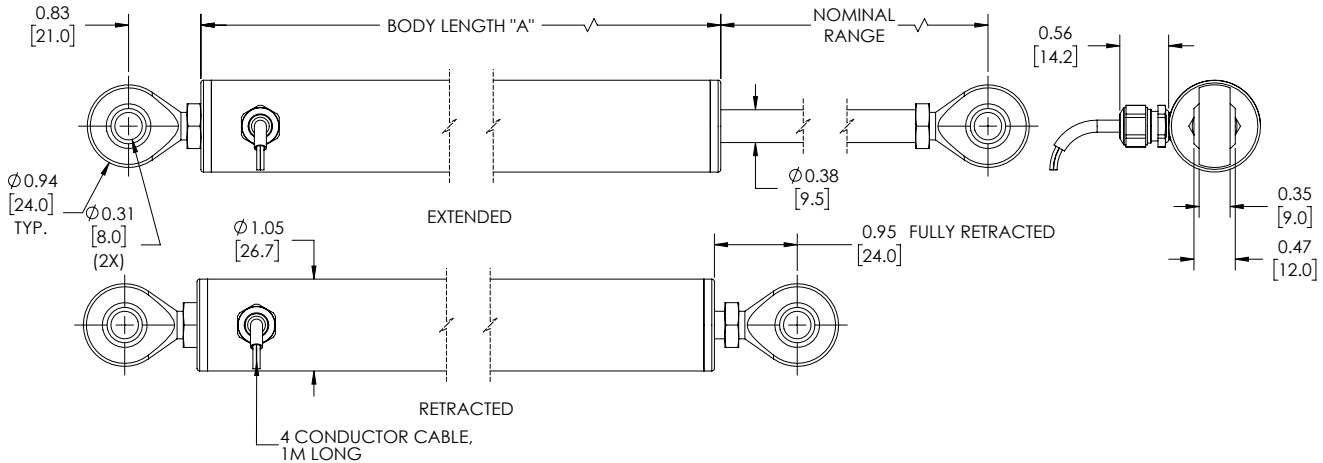
Alliance Sensors Group LRLE-27/LRLI-27 Series Linear Position Sensors Specifications

Analog I/Os	0-10 V output with 12-30 V power source, 35mA max; 4-20 mA (3-wire) output with 18-30V power source, 60mA max, 167°F [75°C] max
Measuring Ranges	8 to 18 in [203.2 to 457.2 mm] full scale (nominal)
Linearity Error	≤ ±0.15% of Full Scale Output (FSO) typical, ±0.25% max
Resolution	0.025% of FS
Update Rate	300Hz nominal
Operating Temperature	-4°F to 185°F [-20°C to +85°C]; -40°F 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

LRLE-27/LRLI-27 LVIT Linear Position Sensors

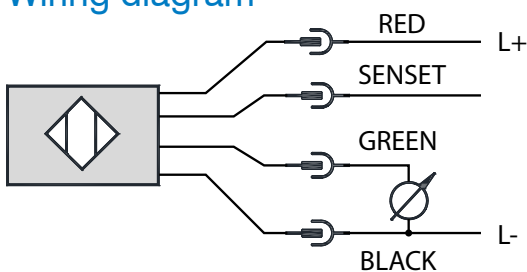
Dimensions

in [mm]



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4-20 mA models		
LRLI27-200R-00-20A	8.0 in [203.2 mm]	11.50 in [292.1 mm]
LRLI27-250R-00-20A	10.0 in [254.0 mm]	13.50 in [342.9 mm]
LRLI27-300R-00-20A	12.0 in [304.8 mm]	15.50 in [393.7 mm]
LRLI27-350R-00-20A	14.0 in [355.6 mm]	17.50 in [444.5 mm]
LRLI27-400R-00-20A	16.0 in [406.24mm]	19.50 in [495.3 mm]
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Wiring diagram



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