

LRE-19/LRI-19 LVIT Linear Position Sensors


LRE19-100R-00-10A

Low cost, compact, high performance linear position sensors

The LRE-19/LRI-19 series of inductive linear position sensors by Alliance Sensors Group are contactless devices designed for factory automation and a variety of industrial or commercial applications. Typical applications include the following:

- Motor sport vehicles
- Automotive testing
- Solar cell positioning
- Wind turbine, prop pitch and brake positioning
- Packaging equipment

With their compact design and excellent stroke-to-length ratio, LR-19 series sensors are ideal for industrial testing laboratories and OEM applications.

LRE-19/LRI-19 series sensors are offered in 6 full scale ranges from 1 to 8 in [25.4 to 203.2 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.

LRE-19/LRI-19 series products are available with a radial exiting cable and two swivel rod eye ends for easy installation.

The LRE-19/LRI-19 series also includes a larger body version, the LRE-27/LRI-27, for those applications needing a heavier duty unit.

Features

- Contactless operation prevents internal wear-out from dithering or rapid cycling
- Excellent stroke-to-length ratio
- 0.75 in [19mm] diameter anodized aluminum housing sealed to IP-67
- Radial cable exit version comes with swivel rod eye ends

Alliance Sensors Group LRE-19/LRI-19 Series Linear Position Sensors Selection Chart

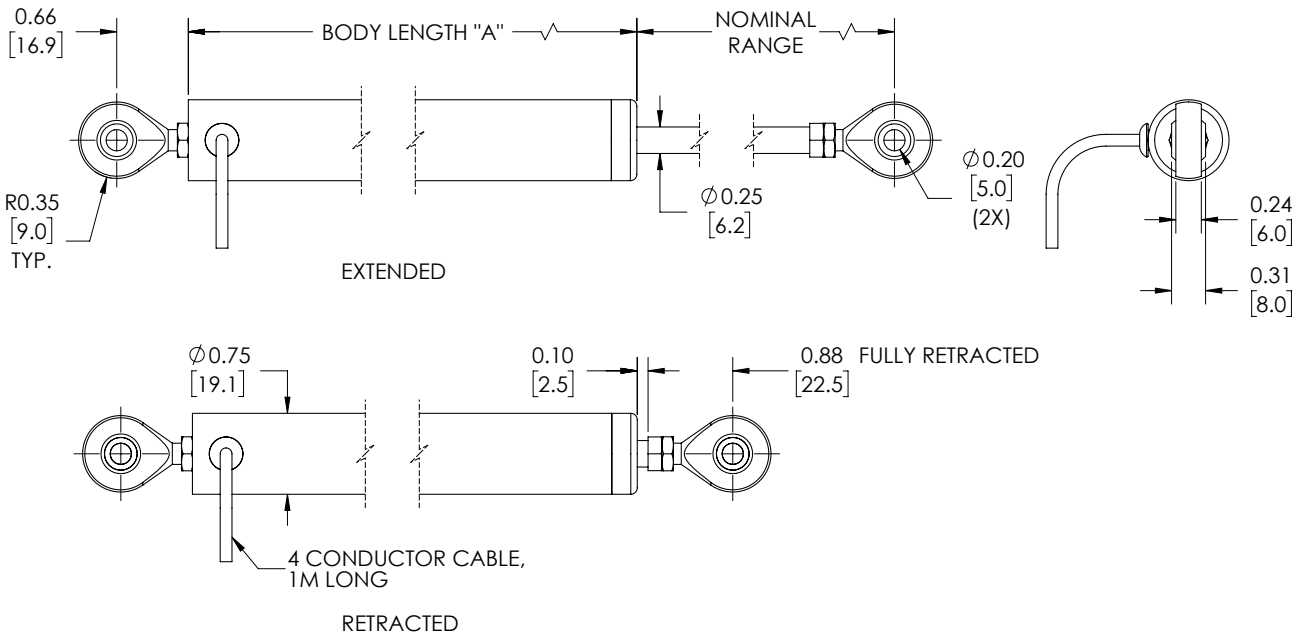
Part Number	Price	Nominal Range (in [mm])	Body Length (Dimension A) (in [mm])
0-10 V models			
LRE19-025R-00-10A	\$299.00	1.0 [25.4]	3.40 [86.3]
LRE19-050R-00-10A	\$320.00	2.0 [50.8]	4.40 [111.8]
LRE19-075R-00-10A	\$340.00	3.0 [76.2]	5.40 [138.1]
LRE19-100R-00-10A	\$360.00	4.0 [101.6]	6.40 [162.5]
LRE19-150R-00-10A	\$390.00	6.0 [152.4]	8.40 [213.3]
LRE19-200R-00-10A	\$430.00	8.0 [203.2]	10.40 [264.1]
4-20 mA models			
LRI19-025R-00-20A	\$299.00	1.0 [25.4]	3.40 [86.3]
LRI19-050R-00-20A	\$320.00	2.0 [50.8]	4.40 [111.8]
LRI19-075R-00-20A	\$340.00	3.0 [76.2]	5.40 [138.1]
LRI19-100R-00-20A	\$360.00	4.0 [101.6]	6.40 [162.5]
LRI19-150R-00-20A	\$390.00	6.0 [152.4]	8.40 [213.3]
LRI19-200R-00-20A	\$430.00	8.0 [203.2]	10.40 [264.1]

Alliance Sensors Group LRE-19/LRI-19 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	1 to 8 in [25.4 to 203.2 mm]
Linearity Error	≤ ±0.15% of FSO
Resolution	0.025% of FS
Bandwidth	300Hz update rate (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/K
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

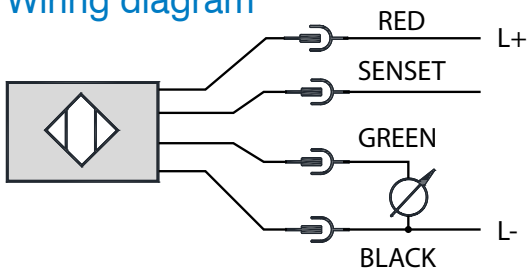
LRE-19/LRI-19 LVIT Linear Position Sensors

Dimensions (in [mm])



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4-20 mA models		
LRI19-025R-00-20A	1.0 [25.4]	3.40 [86.3]
LRI19-050R-00-20A	2.0 [50.8]	4.40 [111.8]
LRI19-075R-00-20A	3.0 [76.2]	5.40 [138.1]
LRI19-100R-00-20A	4.0 [101.6]	6.40 [162.5]
LRI19-150R-00-20A	6.0 [152.4]	8.40 [213.3]
LRI19-200R-00-20A	8.0 [203.2]	10.40 [264.1]

Wiring diagram



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