



# LR-19 Series Linear Position Sensor

## For use in:

PV Solar Cell Positioner  
Wind Energy Systems  
Packaging Machinery  
Motorsport Vehicles  
Automotive Testing  
Factory Automation  
OEM Test Standards

## More Sensor for Less

The LR-19 series LVIT linear position sensors by Alliance Sensors Group are contactless devices designed for factory automation and a variety of industrial and commercial applications, such as: motorsport vehicles, automotive testing, solar cell positioners, wind turbine prop pitch and brake position, and packing equipment. A compact design with superior performance, and excellent stroke-to-length ratio, the LR-19 sensors are ideal for industrial testing, laboratories, and OEM applications.

LR-19 sensors are offered in 6 full scale ranges from 1 to 8 inches (25 to 200 mm). Operating from a variety of DC voltages, these sensors offer a choice of four analog outputs and all include ASG's proprietary SenSet™ field recalibration feature. LR-19 products are available with axial cable or connector terminations, or with radial exiting cable and two swivel rod eye ends for easy installation.

The LR series also includes a larger body version, the LR-27, for those applications which require a heavy-duty unit.

## Features:

- Contactless operation prevents wearout from dither or cycling
- Excellent stroke-to-length ratio
- 19 mm (0.75 inch) diameter anodized aluminum housing sealed to IP-67
- Radial cable exit version comes with swivel rod eye ends
- Axial termination with either M-12 connector or 1 m cable
- 10-32 or M5 X 0.8 male or female thread on end of axial operating rod

## Specifications:

<b>Analog I/Os:</b>	0-5 V or 0.5-4.5 V output with 8-30 V input, 35 mA max. 0-10 V output with 12-30 V input, 35 mA max. 4-20 mA (3-wire) output with 18-30 V input, 60 mA max (75 C max).
<b>FS Measuring Ranges:</b>	25, 50, 75, 100, 150, and 200 mm (1, 2, 3, 4, 6, and 8 inches)
<b>Linearity Error:</b>	± 0.15% of FSO
<b>Resolution:</b>	0.025% of FSO
<b>Bandwidth:</b>	300 Hz
<b>Operating Temperature:</b>	-20 to 85 C (-40 to 105 C extended temperature range)
<b>Vibration:</b>	5-20 Hz, 0.5 inch p-p; 20-2000 Hz, 4.2 g p-p
<b>Shock:</b>	1000 g, 11 msec.
<b>Environmental Sealing:</b>	IEC IP-67

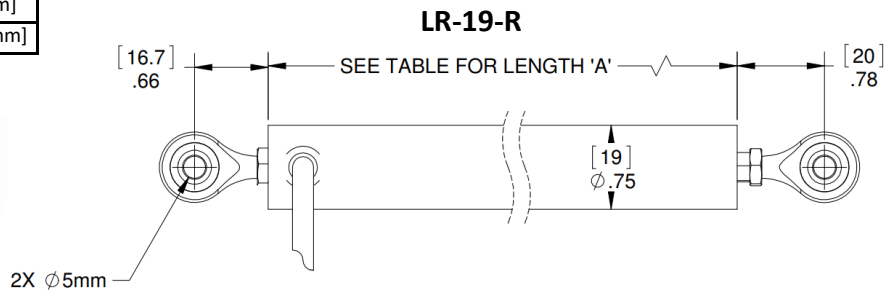
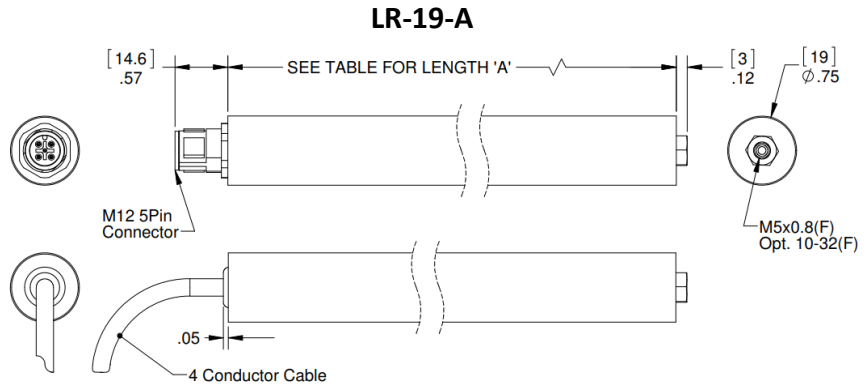
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# LR-19 Series



Wiring Table		
Function	Pin	Cable Color
DC power input	1	Red
Ground	2	Black
LRE voltage output	3	Green
LRI current output	4	Green
SenSet™	5	White

Unit Length Table	
Linear Range	Length "A"
1.0 inch [25 mm]	3.74 inches [95.0 mm]
2.0 inches [50 mm]	4.74 inches [120.4 mm]
3.0 inches [75 mm]	5.74 inches [145.8 mm]
4.0 inches [100 mm]	6.74 inches [171.2 mm]
6.0 inches [150 mm]	8.74 inches [220.0 mm]
8.0 inches [200 mm]	10.74 inches [272.8 mm]



## Ordering Information:

Series	Output Type	Body Diameter	Range, Metric	Termination Direction	Termination	Output	Housing Material
LR	X-	XX-	XXX-	X-	XX-	XX-	X-
	E- Voltage	19- 19 mm	025- 25 mm	A- Axial	00- 1 m cable	05- 0.5 to 4.5 V	A- Aluminum
	I- Current		050- 50 mm	R- Radial (cable only)	01- 5-pin M12	06- 4.5 to 0.5 V	S- Stainless Steel
			075- 75 mm			10- 0 to 10 V	
			100- 100 mm			11- 10 to 0 V	
			150- 150 mm			20- 4 to 20 mA	
			200- 200 mm			21- 20 to 4 mA	
						50- 0 to 5 V	
						51- 5 to 0 V	

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