Linear Variable Inductive Transducers for Position Sensing

0 to 10V Output with 12 to 30V Input
4 to 20 mA (3-Wire) Output with 18 to 30V Input

LDI-119 Series

LDI-119-150-A010A
shown smaller than
actual size.

The LDI-119 Series LVIT (Linear Variable Inductive Transducer) position sensors from OMEGA® are contactless devices designed for factory automation and a variety of industrial and commercial applications such as motor sport vehicles, automotive testing, solar cell positioners, wind turbine prop pitch and brakes, and packing equipment. With their compact device, superior performance, and excellent stroke-to-length ratio, the LDI-119 sensors are ideal for both industrial testing, laboratories, and OEM applications.

LDI-119 sensors are offered in 6 full scale ranges from 25 to 200 mm (1 to 8"). Operating from a variety of DC voltages, these sensors offer a choice of outputs and all include the field programmability calibration feature. LDI-119 products come with radial exiting cable and two swivel rod eye ends for easy installation.

The LDI series also include a larger body version, the LDI-127, for those applications needing a heavier duty unit.

- ✔ **Low Cost, Robust Construction**
- ✔ **Contactless Operation Prevents Wearout from Dithering or Cycling**
- ✔ **Excellent Stroke-to-Length Ratio**
- ✔ **19 mm (0.75") Diameter Anodized Aluminum Housing Sealed to IP67**
- ✔ **Wide Choice of Range: 25 to 200 mm (1 to 8") Full Scale**
- ✔ **High Accuracy with Low Linearity Error**
- ✔ **Radial Cable Exit with Swivel Rod Eye Ends**
- ✔ **Designed to Operate Under Adverse Temperature, Vibration, Shock, and Humidity Conditions**

Specifications

Analog I/Os:
0 to 10V output with 12 to 30V input, 35 mA max;
4 to 20 mA (3-wire) output with 18 to 30V input,
60 mA max 75°C (167°F max)

Measuring Range: 25 to 200 mm (1 to 8") full scale

Linearity Error: ±0.15% of Full Scale Output (FSO) typical, ±0.25% max

Resolution: 0.025% of FS

Update Rate: 300 Hz nominal

Operating Temperature: -20 to 85°C (-4 to 185°F)

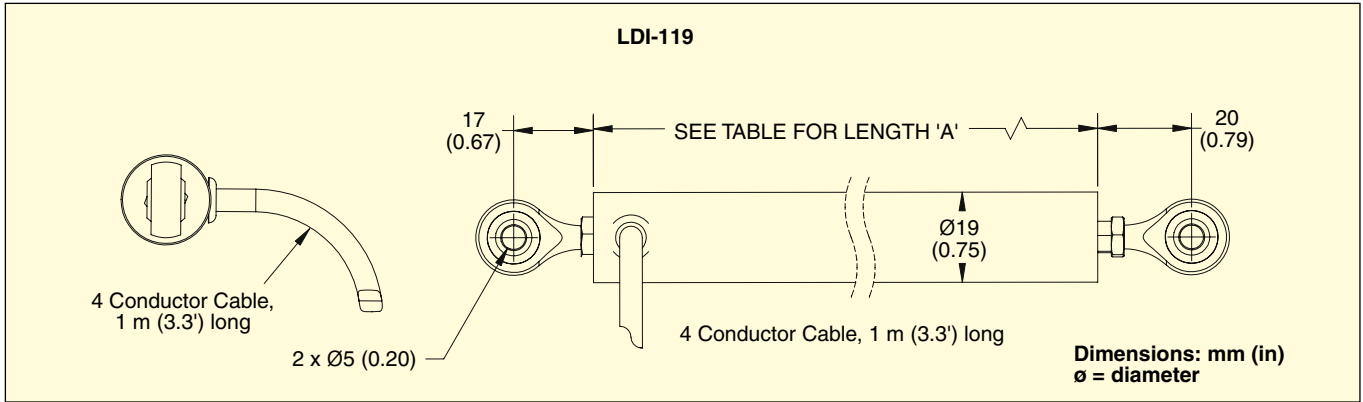**Temperature Coefficient:** 0.015% of FS/degree°C

Vibration: 5 to 20 Hz, 0.5" p-p; 20 to 2000 Hz, 4.2 g p-p

Shock: 1000 g, 11 ms

Terminations: IEC IP67

Humidity: 95% RH, non-condensing

Housing Material: Aluminum

LDI-119

17 (0.67) | SEE TABLE FOR LENGTH 'A' | 20 (0.79)

4 Conductor Cable, 1 m (3.3') long

2 x Ø5 (0.20)

4 Conductor Cable, 1 m (3.3') long

Ø19 (0.75)

Dimensions: mm (in)
ø = diameter

Wiring Table	
Function	**Cable Code**
+ Power Input	Red
Ground	Black
Analog Output	Green
Field Programmability	White

Unit Length Table, Dimensions: mm (in)	
Linear Range	**Length "A"**
25 (1)	89 (3.5)
50 (2)	114 (4.5)
75 (3)	140 (5.5)
100 (4)	165 (6.5)
150 (6)	216 (8.5)
200 (8)	267 (10.5)

To Order

Model No.	Description
LDI-119-025-A010A	Linear sensor, 25 mm range, 19 mm housing, radial cable, rodeye ends, 0 to 10 Vdc output
LDI-119-050-A010A	Linear sensor, 50 mm range, 19 mm housing, radial cable, rodeye ends, 0 to 10 Vdc output
LDI-119-075-A010A	Linear sensor, 75 mm range, 19 mm housing, radial cable, rodeye ends, 0 to 10 Vdc output
LDI-119-100-A010A	Linear sensor, 100 mm range, 19 mm housing, radial cable, rodeye ends, 0 to 10 Vdc output
LDI-119-150-A010A	Linear sensor, 150 mm range, 19 mm housing, radial cable, rodeye ends, 0 to 10 Vdc output
LDI-119-200-A010A	Linear sensor, 200 mm range, 19 mm housing, radial cable, rodeye ends, 0 to 10 Vdc output
LDI-119-025-A020A	Linear sensor, 25 mm range, 19 mm housing, radial cable, rodeye ends, 4 to 20 mA output
LDI-119-050-A020A	Linear sensor, 50 mm range, 19 mm housing, radial cable, rodeye ends, 4 to 20 mA output
LDI-119-075-A020A	Linear sensor, 75 mm range, 19 mm housing, radial cable, rodeye ends, 4 to 20 mA output
LDI-119-100-A020A	Linear sensor, 100 mm range, 19 mm housing, radial cable, rodeye ends, 4 to 20 mA output
LDI-119-150-A020A	Linear sensor, 150 mm range, 19 mm housing, radial cable, rodeye ends, 4 to 20 mA output
LDI-119-200-A020A	Linear sensor, 200 mm range, 19 mm housing, radial cable, rodeye ends, 4 to 20 mA output

Ordering Examples: LDI-119-150-A010A, *150 mm range, 19 mm housing, radial cable, rodeye ends, 0 to 10 Vdc output, aluminum housing.*
LDI-119-025-A020A, *25 mm range, 19 mm housing, radial cable, rodeye ends, 4 to 20 mA output, aluminum housing.*