

# Linear Variable Inductive Transducers for Position Sensing (Heavy-Duty)



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

**LDI-127 and LDI-128 Series**



**LDI-127-150-A010A**  
shown smaller than  
actual size.

The LDI-127/LDI-128 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 solar cell positioners, wind turbine prop pitch and brakes, chute or gate positions on off-road or agri-vehicles and packing equipment.

With their compact device, superior performance, and excellent stroke-to-length ratio, the LDI-127/LDI-128 sensors are ideal for both industrial testing, laboratories, and in-plant or mobile equipment OEM applications.

LDI-127/LDI-128 sensors are offered in 10 full scale ranges from 25 to 450 mm (1 to 18"). Operating from a variety of DC voltages, these sensors offer a choice of outputs and all include the Field Programmability calibration feature. LDI-127/LDI-128 models come with radial exiting cable and two swivel rod eye ends for easy installation.

The LDI series also includes a smaller body version, the LDI-119, for those applications not requiring a heavy-duty unit.

- ✓ **Heavy-Duty, Long Lasting, Contactless Device**
- ✓ **Excellent Stroke-to-Length Ratio**
- ✓ **27 mm (1.05") Diameter Anodized Aluminum Housing Sealed to IP67**
- ✓ **Wide Choice of Range: 25 to 450 mm (1 to 18") 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 450 mm (1 to 18") full scale

**Linearity Error:**  $\pm 0.15\%$  of Full Scale Output (FSO) typical,  $\pm 0.25\%$  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

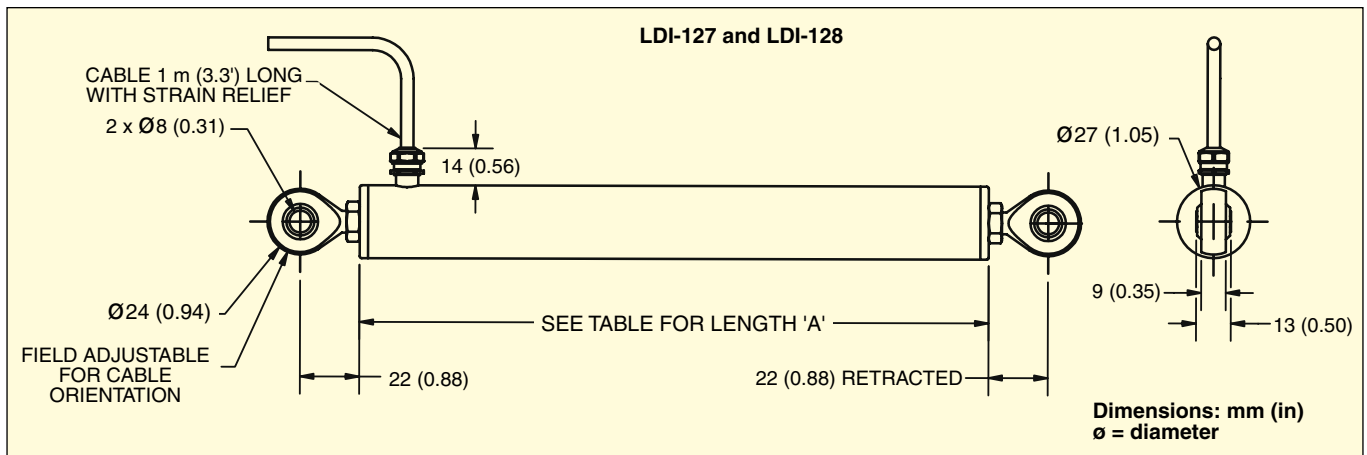
**Vibration:** 5 to 20 Hz, 0.5" p-p; 20 to 2000 Hz, 4.2 g p-p

**Shock:** 1000 g, 11 ms

**Terminations:** IEC IP67

**Humidity:** 95% RH, non-condensing

**Housing Material:** Aluminum



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)	114.3 (4.5)
50 (2)	139.7 (5.5)
100 (4)	190.5 (7.5)
150 (6)	241.3 (9.5)
200 (8)	292.1 (11.5)
250 (10)	342.9 (13.5)
300 (12)	393.7 (15.5)
350 (14)	444.5 (17.5)
400 (16)	495.3 (19.5)
450 (18)	546.1 (21.5)

The LDI models come with radial exiting cable and two swivel rod eye ends for easy installation.

To Order	
Model No.	Description
<b>LDI-127-025-A010A</b>	Linear Sensor, 25 mm range, 27 mm housing, 0 to 10 Vdc output
<b>LDI-127-050-A010A</b>	Linear Sensor, 50 mm range, 27 mm housing, 0 to 10 Vdc output
<b>LDI-127-100-A010A</b>	Linear Sensor, 100 mm range, 27 mm housing, 0 to 10 Vdc output
<b>LDI-127-150-A010A</b>	Linear Sensor, 150 mm range, 27 mm housing, 0 to 10 Vdc output
<b>LDI-127-200-A010A</b>	Linear Sensor, 200 mm range, 27 mm housing, 0 to 10 Vdc output
<b>LDI-128-250-A010A</b>	Linear Sensor, 250 mm range, 27 mm housing, 0 to 10 Vdc output
<b>LDI-128-300-A010A</b>	Linear Sensor, 300 mm range, 27 mm housing, 0 to 10 Vdc output
<b>LDI-128-350-A010A</b>	Linear Sensor, 350 mm range, 27 mm housing, 0 to 10 Vdc output
<b>LDI-128-400-A010A</b>	Linear Sensor, 400 mm range, 27 mm housing, 0 to 10 Vdc output
<b>LDI-128-450-A010A</b>	Linear Sensor, 450 mm range, 27 mm housing, 0 to 10 Vdc output
<b>LDI-127-025-A020A</b>	Linear Sensor, 25 mm range, 27 mm housing, 4 to 20 mA output
<b>LDI-127-050-A020A</b>	Linear Sensor, 50 mm range, 27 mm housing, 4 to 20 mA output
<b>LDI-127-100-A020A</b>	Linear Sensor, 100 mm range, 27 mm housing, 4 to 20 mA output
<b>LDI-127-150-A020A</b>	Linear Sensor, 150 mm range, 27 mm housing, 4 to 20 mA output
<b>LDI-127-200-A020A</b>	Linear Sensor, 200 mm range, 27 mm housing, 4 to 20 mA output
<b>LDI-128-250-A020A</b>	Linear Sensor, 250 mm range, 27 mm housing, 4 to 20 mA output
<b>LDI-128-300-A020A</b>	Linear Sensor, 300 mm range, 27 mm housing, 4 to 20 mA output
<b>LDI-128-350-A020A</b>	Linear Sensor, 350 mm range, 27 mm housing, 4 to 20 mA output
<b>LDI-128-400-A020A</b>	Linear Sensor, 400 mm range, 27 mm housing, 4 to 20 mA output
<b>LDI-128-450-A020A</b>	Linear Sensor, 450 mm range, 27 mm housing, 4 to 20 mA output

Comes complete with radial exiting cable and two swivel rod eye ends.

**Ordering Example:** LDI-127-100-A010A, 100 mm range, 27 mm housing, radial cable, rodeye ends, 0 to 10 Vdc output, aluminum housing.