



For use in:
Factory Automation
Assembly Machinery
Packaging Equipment
Automation Systems
Part Inspection/Location

LZ-9.5 Series

LVIT Miniature Inductive Linear Position Sensor

LVIT linear position sensor for applications where size and / or superior stroke-to-length ratio is required.

The LZ-9.5 Series of LVIT (Linear Variable Inductance Transducer) miniature position sensors are contactless, inductive devices for applications in factory automation or assembly machinery where space is a premium. These DC in / DC out LVITs are offered in nominal full-scale ranges from 6.4 to 150 mm (0.25 to 6 inches) with excellent stroke-to-length ratios and a variety of I/Os. The LZ-9.5 sensor has a 9.5 mm (0.375 inch) diameter stainless steel body and a 2.5 mm (0.096 inch) diameter SS moving rod with an M2.5 end thread and hex jam nut. I/O connections are made via a 1 m (39 inch) axial cable and include ASG's proprietary SenSet™ field recalibration feature.

Additional information can be found at www.alliancesensors.com

Features:

- LVIT Technology™ (Linear Variable Inductance Transducer)
- Contactless operation prevents internal wearout from dithering or rapid cycling
- Excellent stroke-to-length ratio
- Full Scale ranges from 6.4 to 150 mm (0.25 to 6 inches)
- DC in / DC out operation with built-in electronics
- Proprietary SenSet™ field adjustable range scaling

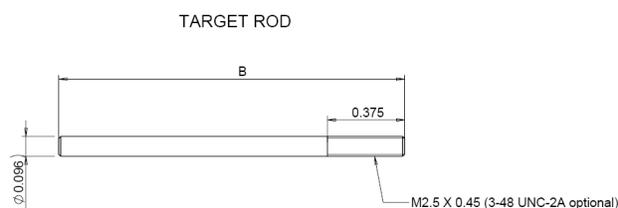
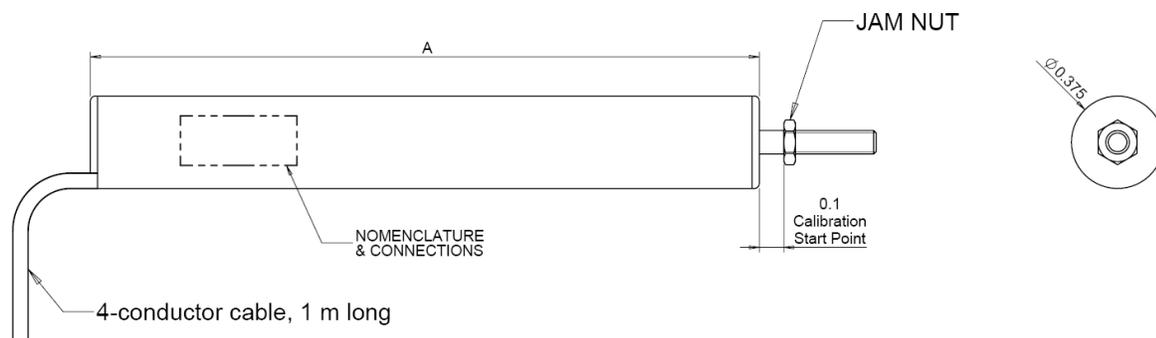
Specifications:

| | |
|-------------------------|--|
| Analog I/Os | 0-5 V or 0.5-4.5 V DC output; 8-30 V DC input, 35 mA max. 0-10 V DC output; 12-30 V input, 35 mA max. 5 or 10 V DC input |
| Measuring Ranges | 6.4-150 mm (.25 to 6 inches) full scale |
| Linearity Error | ± 0.15% of Full Scale Output (FSO) typical, ± 0.25% |
| Resolution | 0.025% of FSO |
| Update Rate | 300 Hz nominal |
| Operating Temperature | -20 to 105° C |
| Temperature Coefficient | ≤0.015% of FS/deg C |
| Vibration | 5-20 Hz, 0.5 inch p-p; 20-2000 Hz, 4.2 g p-p |
| Shock | 1000 g, 11 msec |
| Terminations | IEC IP-67 |
| Humidity | 95% RH, non-condensing |

All specifications are subject to change without notice

ALLIANCE SENSORS GROUP
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LZ-9.5 Series



| Unit Length Table | | |
|-----------------------|------------------------|------------------------|
| Nominal Range | Length "A" | Length "B" |
| 0.25 inches [6.4 mm] | 2.72 inches [69.1 mm] | 1.68 inches [42.7 mm] |
| 0.50 inches [12.7 mm] | 2.72 inches [69.1 mm] | 1.68 inches [42.7 mm] |
| 0.75 inches [19 mm] | 2.72 inches [69.1 mm] | 1.68 inches [42.7 mm] |
| 1.0 inches [25 mm] | 2.72 inches [69.1 mm] | 1.68 inches [42.7 mm] |
| 2.0 inches [50 mm] | 3.72 inches [94.5 mm] | 2.68 inches [68.1 mm] |
| 3.0 inches [75 mm] | 4.72 inches [119.9 mm] | 3.68 inches [93.5 mm] |
| 4.0 inches [100 mm] | 5.72 inches [145.3 mm] | 4.68 inches [118.9 mm] |
| 6.0 inches [150 mm] | 7.72 inches [196.1 mm] | 6.68 inches [169.7 mm] |

| Wiring Table | |
|---------------|-------------|
| I/O Function | Cable Color |
| + Power input | Red |
| Ground | Black |
| Analog output | Green |
| SenSet™ | White |

Ordering Information:

| Series | Output Type | Housing Diameter | Range | Termination Direction | Termination | Output | Housing/Rod Material |
|--------|-------------|------------------|--------------------|-----------------------|---------------|-----------------|----------------------|
| LZ | X- | XX- | XXX- | X- | XX- | XX- | X- |
| | E- Voltage | 9.5- 9.5 mm | 6.4 - 0.25 inches | A - Axial | 00- 1-m cable | 05- 0.5-4.5 VDC | S- 300 Series SS |
| | | | 12.7 - 0.50 inches | | | 06- 4.5-0.5 VDC | |
| | | | 19 - 0.75 inches | | | 10- 0-10 VDC | |
| | | | 25 - 1.0 inches | | | 11- 10-0 VDC | |
| | | | 50 - 2.0 inches | | | 50- 0-5 VDC | |
| | | | 75 - 3.0 inches | | | 51- 5-0 VDC | |
| | | | 100 - 4.0 inches | | | | |
| | | | 150 - 6.0 inches | | | | |

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