



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](http://www.alliancesensors.com)

### Features:

- LVIT Technology™ (Linear Variable Inductance Transducer)
- Contactless operation prevents internal wear out 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

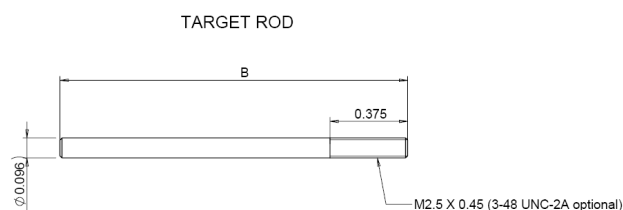
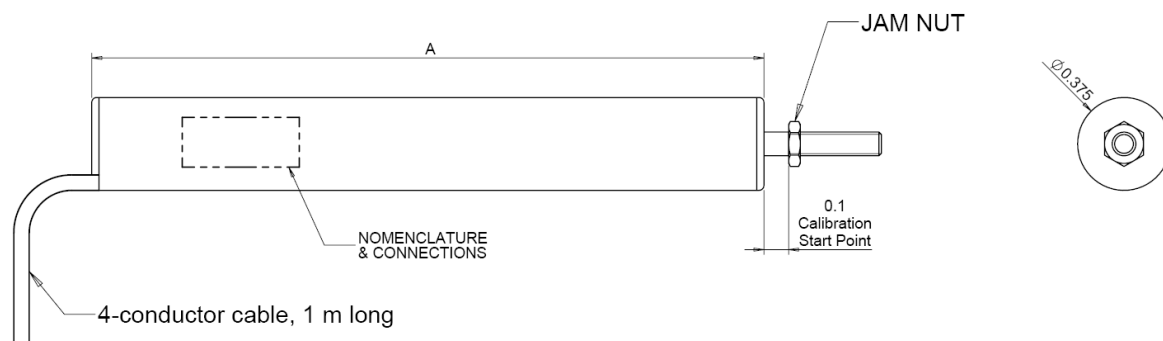
### Specifications:

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*

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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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