

For use in:  
Hydraulic Cylinders  
Automation Systems  
Assembly Machinery  
Packaging Equipment

# LZ-25 Series

## LVIT Linear Position Sensor

Through-bore LVIT Linear Position Sensor with superior stroke-to-body-length ratio

The LZ-25 series of LVIT (Linear Variable Inductance Transducer) position sensors are contactless devices designed for frictionless measurement in factor automation or assembly machinery applications where space is a premium, as well as for external mounting on hydraulic cylinders to sense rod position. The LVIT is offered in nominal full scale ranges from 50 to 900 mm (2 to 36 inches) with an excellent stroke-to-length ratio, so that the sensor's overall length is only 38 mm (1.5 inches) longer than the linear range of the unit. The sensor has a 25.4 mm (1 inch) outside diameter aluminum or optional stainless steel body with a 1m cable for I/O connections. The 7.5 mm (0.295 inch) diameter through-bore of an LZ-25 provides clearance for its 6.35 mm (0.25 inch) diameter moving rod, which is made of the same material as its housing. This through-bore feature also means that the sensor is not subject to damage from typical mechanical overstocking.

Additional information can be found at [www.alliancesensors.com](http://www.alliancesensors.com)

### Features:

- LVIT Technology™ (Linear Variable Inductance Transducer)
- Contactless operation...frictionless measurement
- Excellent stroke-to-body-length ratio
- Through-bore design
- Proprietary SenSet™ field adjustable range scaling

### Specifications:

Analog I/Os	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).
Measuring Ranges	50-900 mm (2 to 36 inches) Full Scale (nominal)
Linearity Error	± 0.15% of FSO typical, ± 0.25% of FSO max
Resolution	0.025% of FSO
Update Rate	300 Hz nominal
Operating Temperature	-20 to 85 C (-40 to 105 C extended temperature range)
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

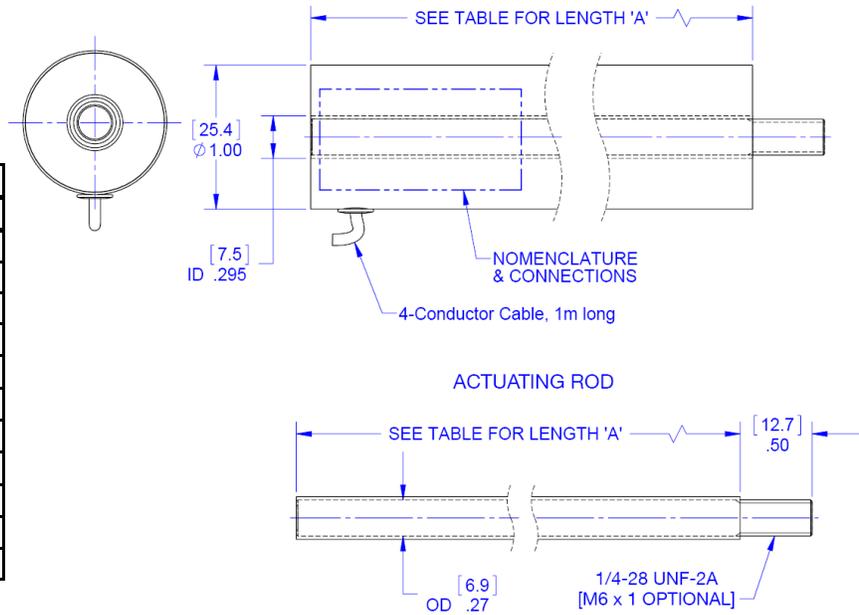
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# LZ-25 Series



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

Unit Length Table	
Nominal Range	Length "A"
2.0 inches [50 mm]	3.00 inches [76.2 mm]
4.0 inches [100 mm]	5.00 inches [127.0 mm]
6.0 inches [150 mm]	7.00 inches [177.8 mm]
8.0 inches [200 mm]	9.25 inches [235.0 mm]
10.0 inches [250 mm]	11.25 inches [285.8 mm]
12.0 inches [300 mm]	13.25 inches [336.6 mm]
15.0 inches [375 mm]	16.50 inches [419.1 mm]
18.0 inches [450 mm]	19.50 inches [495.3 mm]
24.0 inches [600 mm]	25.50 inches [647.7 mm]
30.0 inches [750 mm]	31.50 inches [800.1 mm]
36.0 inches [900 mm]	37.50 inches [952.5 mm]



## Ordering Information:

Series	Output Type	Body Diameter	Range, Metric	Termination Direction	Termination	Output	Housing Material
LZ	X-	XX-	XXX-	X-	XX-	XX-	X-
	E- Voltage	25- 25 mm	<b>050-300</b> (50 mm increments)	R- Radial	<b>00-</b> 1-m cable	<b>05-</b> 0.5-4.5 VDC	<b>A-</b> Aluminum
	I- Current		<b>300-450</b> (75 mm increments)			<b>06-</b> 4.5-0.5 VDC	<b>S-</b> 300 Series SS
			<b>450-900</b> (150 mm increments)			<b>10-</b> 0-10 VDC	
						<b>11-</b> 10-0 VDC	
						<b>20-</b> 4-20 mA	
						<b>21-</b> 20-4 mA	
						<b>50-</b> 0-5 VDC	
						<b>51-</b> 5-0 VDC	

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