



LZ-19 Series

LVIT Linear Position Sensor

Through-bore LVIT Linear Position Sensor for applications needing superior stroke-to-body-length

The LZ-19 Series of LVIT (Linear Variable Inductance Transducer) position sensors are contactless devices designed for use in factory automation or assembly machinery applications where space is a premium, as well as for external mounting on pneumatic cylinders to sense rod position. The LVIT is offered in nominal full scale ranges from 2.5 to 750 mm (0.1 to 30 inches) with an excellent stroke-to-length ratio. The sensor has a 19 mm (3/4 inch) outside diameter stainless steel or optional aluminium body with a 1m axial cable for I/O connections. The 6 mm (0.236 inch) diameter through-bore of an LZ-19 provides clearance for its 5.2 mm (0.200 inch) diameter, PVDF-sheathed 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 overstroking.

Technical datasheets and additional information can be found at www.alliancesensors.com

Features:

- Contactless operation prevents internal wearout from dithering or rapid cycling
- LVIT Technology™ (Linear Variable Inductance Transducer)
- Through-bore design eliminates mechanical overstroking
- Full Scale ranges from 2.5 to 750 mm (0.1 to 30 inches)
- Proprietary SenSet™ field adjustable range scaling
- DC in / DC out operation with built-in electronics
- Excellent stroke-to-body-length ratio

Specifications:

Analog I/Os	0 – 5 V or 0.5 – 4.5 V DC output; 8 – 30 V input, 35 mA max, 0 – 10 V DC output; 12 – 30 V input, 35 mA max 4 – 20 mA (3-wire) output; 18 – 30 V input, 60 mA max. (75 C max)
Measuring Ranges	2.5 to 750 mm (0.100 to 30 inches) 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

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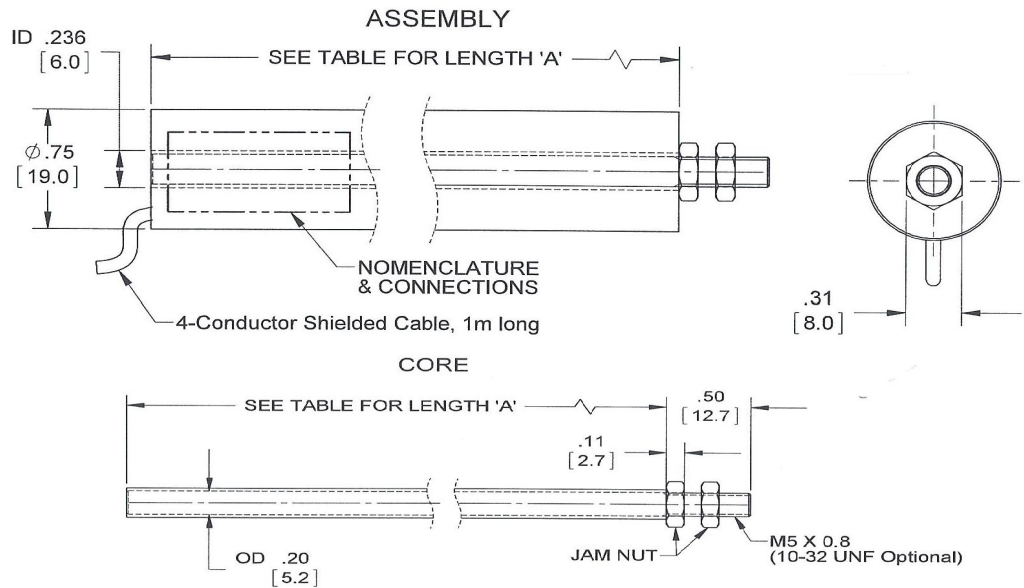
Specifications Con't:

Operating Temperature	-20 to 85 C (-40 to 105 C Extended Range)
Temperature Coefficient	≤±0.015% of FS/C
Terminations	IEC IP-67
Humidity	95% RH, non-condensing
Shock	1000 gs, 11 msec.
Vibration	5-20 Hz 0.5 inch p-p; 20-2000 Hz 4.2 g p-p

LZ-19 Range Table		
Nominal	Range	Length "A"
Inches	mm	Inches (mm)
0.10	2.5	1.38 (35.0)
0.25	6.4	1.38 (35.0)
0.50	12.7	1.38 (35.0)
0.75	19	1.38 (35.0)
1.00	25	1.38 (35.0)
1.25	32	1.63 (41.3)
2.00	50	2.38 (60.5)
3.00	75	3.38 (85.9)
4.00	100	4.38 (111.1)
6.00	150	6.50 (165.1)
8.00	200	8.50 (215.9)
10.00	250	10.50 (266.7)
12.00	300	12.50 (317.5)
15.00	375	15.75 (400.0)
18.00	450	18.75 (476.2)
24.00	600	25.00 (635.0)
30.00	750	31.00 (787.4)

LZ-19 Connection Table	
I/O Function	Color
+Power Input	Red
Ground	Black
Analog output	Green
SenSet™	White
Shield/ drain*	Shield

*Shield unconnected internally



Ordering Information:

Series	Output	Housing Diameter	Range (mm)	Electrical Termination		Output	Housing/Rod Material
				Axial	Termination		
LZ	X-	XX-	XXX-	X-	XX-	XX-	X-
	E - Voltage	19 - 19 mm	2.5 - 750	A - Axial	00 - 1 m cable	05 - 0.5 to 4.5 V	S - 300 Series SS
	I - Current		(2.5mm increments)	R - Radial		06 - 4.5 to 0.5 V	A - Aluminum
						10 - 0 to 10.0 V	
						11 - 10.0 to 0 V	
						20 - 4 to 20 mA	
						21 - 20 to 4 mA	
						50 - 0 to 5 V	
						51 - 5 to 0 V	