

## **LA-9.5 Series**

## **Miniature AC-LVDT**

Reduced Size, Ideal for OEM Applications



For use in: Packaging Equipment Factory Automation Robotic Actuators OEM Systems

The LA-9.5 series miniature AC-LVDT (Linear Variable Differential Transformer) linear position sensors by H.G. Schaevitz LLC dba Alliance Sensors Group are contactless devices designed for industrial and commercial applications like factory automation, automotive test stands, solar cell positioners, robotic assembly systems, packaging equipment, and motor sports vehicles. Their compact size, superior performance, and excellent stroke-to-length ratio, make LA-9.5 AC-LVDT sensors ideal for use in test and measurement laboratories, industrial automation equipment, and many OEM position sensing applications.

LA-9.5 series AC-LVDTs are offered in 7 ranges from ±0.025 to ±2.0 inches (±0.63 to ±50.8 mm) with excellent linearity and infinite resolution. LA-9.5 series AC-LVDTs operate from a nominal 3 Vrms, 2.5 - 3.3 kHz excitation source. They are packaged in a 0.375 inch (9.5 mm) OD stainless steel housing, come with either a unified or metric threaded 0.110 inch (2.8 mm) diameter core, have a 0.125 inch (3.2 mm) ID for a reasonable core-to-bore clearance, and feature 12 inch (300 mm) long lead wires. When mated with one of ASG's industrial DIN-rail-mountable LVDT signal conditioners, an LA-9.5 AC-LVDT becomes part of a complete measurement solution.

ASG AC-LVDTs are also offered in larger body and longer range versions, including the LA-19, LA-19, LA-21, LA-25, and LA-27 series. For more information, go to www.alliancesensors.com.

#### Features:

- Miniature AC-LVDT
- 0.375 inch OD Stainless Steel Housing

### Options:

Metric Threaded Core

### Specifications:

Available Ranges ± 0.025, 0.050, 0.100, 0.250, 0.500, 1.00, 2.00 inches

Excitation Frequency 2.5 to 3.3 kHz

Excitation Voltage 3 V ACrms nominal

Linearity Error  $\leq \pm 0.25\%$  of FSO (typical 0.15%)

Null Voltage ≤0.05% of FSO

Operating Temperature -65 to 275°F (-55 to 135 C)

Temperature Coefficient ≤-0.02% FSO/K

Humidity 90% R.H., 240 Hours Shock 1000 gs, 11 msec. Vibration 20 gs to 2 kHz

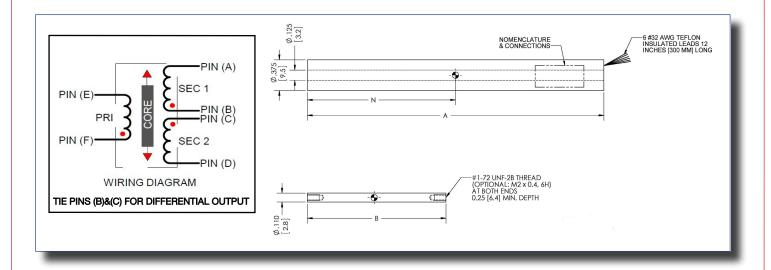
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## **LA 9.5 Series**

#### Ordering Information:

Series	Body Diameter, mm (XX)	Termination Topology (X)	Bipolar Range, Inches (XX)	I/O Connection (XX)	Options
LA	<b>9.5</b> - 9.5 mm (0.375 inch)	A - Axial	XX-	<b>12</b> - 12-inch leads	<b>06</b> - Metric threaded Core
			0.025 - +/025 inches		
			0.05 - +/050 inches		
			0.1 - +/100 inches		
			0.25 - +/250 inches		
			0.5 - +/500 inch		
			01 - +/-1.0 inches		
			02 - +/-2.0 inches		



Nominal Range inches [mm]	Sensitivity mV/V/.001in [mm]	Primary Z Ohms	Body Length A inches [mm]	Core Length B inches [mm]	Null Point N inches [mm]	Body Weight oz. [grams]	Core Weight [grams]
±0.025 [0.63]	3.50 [138]	95	0.50 [12.7]	0.40 [10.2]	0.25 [6.3]	0.10 [2.8]	0.007 [0.23]
±0.050 [1.3]	1.70 [63]	345	0.75 [19.1]	0.60 [16.0]	0.38 [9.6]	0.20 [5.7]	0.014 [0.40]
±0.100 [2.5]	1.80 [63]	345	1.00 [25.4]	0.65 [16.3]	0.50 [12.7]	0.21 [6.0]	0.016 [0.50]
±0.250 [6.3]	2.50 [87]	505	1.75 [44.5]	1.15 [29.3]	0.88 [22.1]	0.40 [11.3]	0.035 [1.00]
±0.500 [12.7]	1.70 [47]	130	3.30 [83.8]	2.00 [50.8]	1.65 [41.9]	0.63 [18.0]	0.056 [1.60]
±1.000 [25]	0.75 [26]	240	5.60 [142.2]	3.00 [76.2]	2.80 [71.1]	0.99 [28.0]	0.092 [2.60]
±2.000 [50]	0.50 [20]	540	9.95 [252.7]	5.30 [134.6]	4.98 [126.2]	1.98 [56.0]	0.183 [5.20]

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Alliance Sensors Group 102 Commerce Drive, Unit 8 Moorestown, New Jersey 08057 USA Ph: 856-727-0250 www.alliancesensors.com info@alliancesensors.com