

**Use with:**  
 Tool and Die Presses  
 Power Turbine Valves  
 Injection Molding Machines  
 Roller Gap for Steel and Aluminum Mills

# LA-21-A SERIES

## AC LVDT

Linear position feedback for typical industrialized applications and environments

The LA-21-A series AC LVDTs offers the robust designs for which Alliance Sensors Group is known in typical industrial packages, with full ranges from 3 inches (75 mm) to 15 inches (375 mm). They are supplied in a zinc-plated-steel 0.805 inch (20.5 mm) diameter housing with 4-inch (100 mm) stripped-and-tinned axial leads. Each LVDT's core is enclosed in a 3/8 inch (9.5 mm) diameter extension rod from which it cannot break loose and has a 5/16-24 UNF or M8 X 1.25 male thread for easy attachment.

LA-21-A AC-LVDTs are ideal for stamping or drawing press die opening, injection molding machine platen position, process valve controls, and roller gap feedback in steel or aluminum mills. Mated with ASG's SC-100 industrial LVT DIN-rail-mountable analog output signal conditioner, and LA-21-A LVDT becomes an ideal solution for typical industrial applications requiring rugged, accurate position sensors.

### Features:

- Mildly Radiation Resistant
- Stock ranges from 3 inches to 15 inches (75 mm to 375 mm) Full Scale
- Core totally enclosed in 3/8 inch (9.5 mm) diameter core extension rod
- Environmentally sealed to IP68

### Specifications:

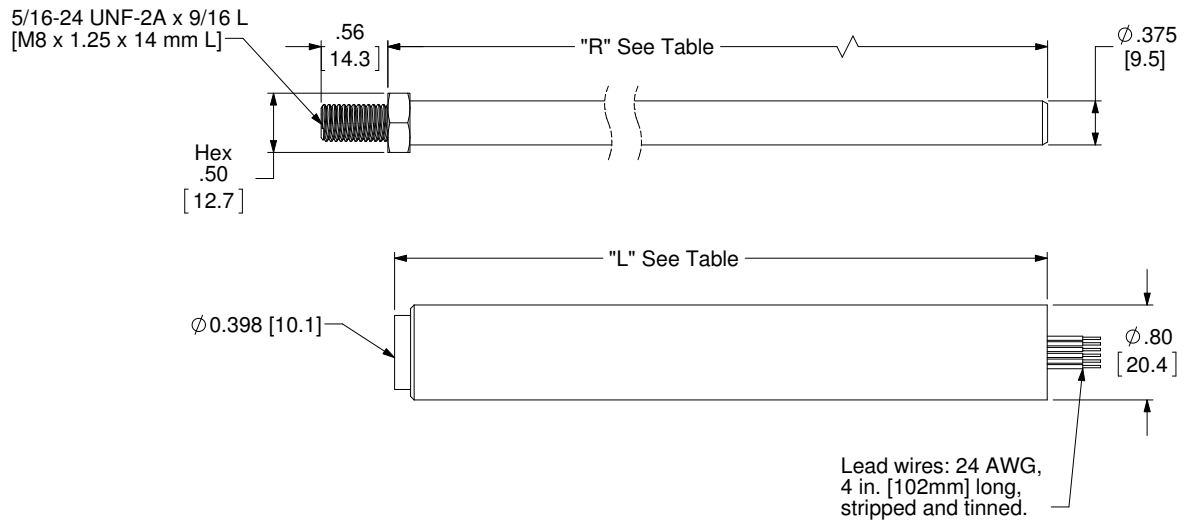
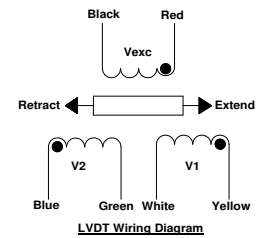
Available Full Ranges	0 to 3, 6, 9, 12, or 15 inches (0 to 75, 150, 225, 300, and 375 mm)
Excitation Frequency	3 kHz nominal
Excitation Voltage	3 V ACrms nominal
Full Scale Output	0.9 V ACrms output (nom.) from differentially connected (S1-S2) secondaries (ref: 3 Vrms excitation); sum of secondaries output is constant over range for ratio-metric (S1-S2)/(S1+S2) operation
Linearity Error	±0.3% of FSO
Operating Temperature	-40 to 150 C (-40 to 350°F)
Temperature Coefficient	≤ ±0.025% FSO/degree K
Humidity	95% RH non-condensing
Shock	1000g, 11 msec
Vibration	5-20 Hz 0.5 inch p-p; 20-2000 Hz 4.2 g p-p

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## Ordering Information:

Series	Range inches	Termination
LA-21-A	XX-	XX-
	03 - 3"	04 - 4" leads
	06 - 6"	
	09 - 9"	
	12 - 12"	
	15 - 15"	

LVDT Model	Range Inches [mm]	Sensitivity		"L" (Body) inches [mm]	"R" (Core) inches [mm]
		mV/V/inch	mV/V/mm		
LA-21-03	±1.5 [±38]	200	7.87	5.50 [140]	8.25 [208]
LA-21-06	±3.0 [±76]	100	3.98	9.25 [235]	12.00 [303]
LA-21-09	±4.5 [±114]	67	2.64	12.25 [311]	15.00 [380]
LA-21-12	±6.0 [±152]	50	1.97	16.25 [413]	19.00 [481]
LA-21-15	±7.5 [±190]	40	1.57	20.25 [511]	23.00 [583]



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