

#### For use in:

Dimensional Gaging and Metrology  
Medical & Automotive Test Stands  
Surface/Web Profiling  
Factory Automation  
Material Testing

# LAS-19-A Series

## Spring-Loaded AC-LVDTs

Ideal for Heavy Duty Industrial Applications

The LAS-19-A series AC-LVDT (Linear Variable Differential Transformer) linear position sensors by H.G. Schaevitz LLC *dba* Alliance Sensors Group are spring-loaded, hermetically-sealed, contactless devices designed for industrial and commercial applications, such as: factory automation, metal and paper mills, valve position, robotic assembly systems, pharmaceutical and food manufacturing, and outdoor or wet environment applications. This ruggedized linear sensing device has excellent price-to-performance and stroke-to-length ratios, making LAS-19-A sensors ideal for use in power generation and industrial automation equipment, and in many OEM positioning applications.

LAS-19-A series AC-LVDTs are offered in 6 ranges from  $\pm 0.050$  to  $\pm 2.00$  inches ( $\pm 1.27$  to  $\pm 50$  mm) with excellent linearity and infinite resolution. LAS-19-A series AC LVDTs operate from a nominal 3 Vrms, 2.5 - 3.3 kHz excitation source. They are packaged in a 0.750 inch (19.0 mm) OD hermetically-sealed stainless steel housing with a 1/2-20 UNF thread and two hex jam nuts, a 0.210 inch diameter (5.3 mm) probe with an AGD No 9 contact tip, and a PTO2-10-6P (6-pin) axial connector.

When mated with ASG's industrial AC-LVDT DIN-rail-mountable signal conditioner, an LAS-19-A series 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-9.5, LA-19, LA-20.6, LA-21, LA-25, and LA-27.

#### Features:

- Spring-loaded AC-LVDT
- Hermetically sealed 0.750 inch OD stainless steel housing
- 1/2-20 UNF mounting threads with nuts
- Axial PTO2-10-6P Connector

#### Specifications:

Available Ranges:  $\pm 0.050$ ", 0.125", 0.250", 0.500", 1.0", and 2.0"  
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: -55 to 125 C  
Temperature Coefficient:  $< -0.02\%$  FSO/K  
Humidity: 95% RH, non-condensing  
Shock: 1000 g, 11 msec.  
Vibration: 20 g to 2 kHz

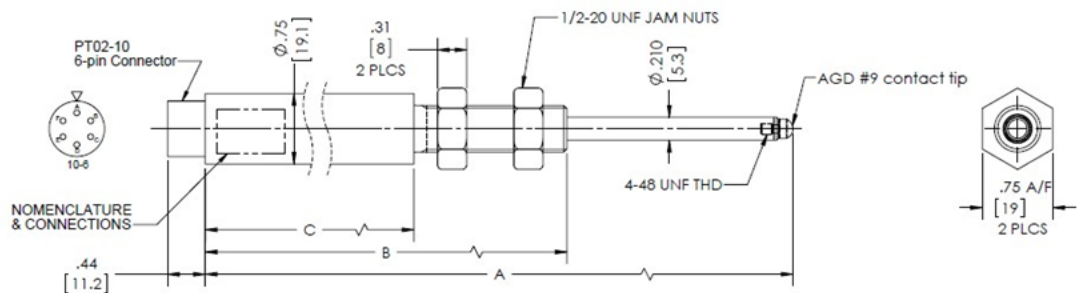
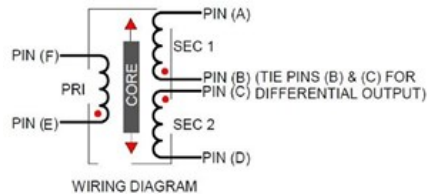
**ALLIANCE SENSORS GROUP**  
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## Ordering Information:

Series	Body Diameter, mm (XX)	Termination Topology (X)	Bipolar Range, Inches (XX)	I/O Connection (XX)
LAS	19 - 19 mm (0.75 inch)	A - Axial	0.05 - +/- .050 inches	02 - PT02-10-6P (6-pin)
			0.125 - +/- .125 inches	
			0.25 - +/- .250 inches	
			0.5 - +/- .500 inches	
			01 - +/- 1.0 inches	
			02 - +/- 2.0 inches	

PT02-10-6P Connector	
A	Secondary 1
B	Secondary 1*
C	Secondary 2*
D	Secondary 2
E	Primary
F	Primary
*	Connect pin B to pin C for differential secondary output



Nominal Range	Sensitivity	Primary Z	Length A	Length B	Length C	Pretravel	Overtravel	Weight
inches [mm]	mV/V/.001in [mm]	Ohms	inches [mm]	inches [mm]	inches [mm]	inches [mm]	inches [mm]	oz. [grams]
±0.050 [1.3]	6.10 [240]	325	4.61 [117]	3.51 [89]	1.97 [50]	0.12 [3.0]	0.12 [3.0]	2.89 [82]
±0.125 [3.0]	3.90 [153]	735	5.26 [134]	4.15 [105]	2.60 [66]	0.13 [3.3]	0.13 [3.3]	3.39 [96]
±0.250 [6.3]	2.50 [98]	1400	6.02 [153]	4.91 [125]	3.35 [85]	0.10 [2.5]	0.10 [2.5]	4.00 [113]
±0.500 [12.5]	0.65 [26]	1200	10.54 [268]	9.05 [230]	5.88 [149]	0.10 [2.5]	0.10 [2.5]	6.00 [170]
±1.000 [25]	0.61 [24]	1250	12.81 [322]	10.51 [267]	7.34 [186]	0.05 [1.3]	0.05 [1.3]	6.31 [179]
±2.000 [50]	0.37 [14]	2150	20.91 [531]	16.35 [415]	10.87 [276]	0.02 [0.5]	0.02 [0.5]	10.23 [290]

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