

T-812-A Series AC LVDT Linear Position Sensor

Features

- Free Core design
- AC LVDT
- Stroke lengths from ± 0.05 to ± 10 inches
- Non-Linearity better than $\pm 0.25\%$ of FS
- Stainless steel housing rated to IP61



Applications

- Laboratory R&D Materials Testing
- Valve Position Sensing
- Factory Automation

Overview

The HGSI T-812-A series AC Linear Variable Differential Transformer (LVDT) Position Sensors are used to monitor and track the linear motion or position of a target. These ruggedized sensors are ideal for use in industrial and laboratory applications including automotive R&D, motorsports, industrial, motion control, medical, military and aerospace.

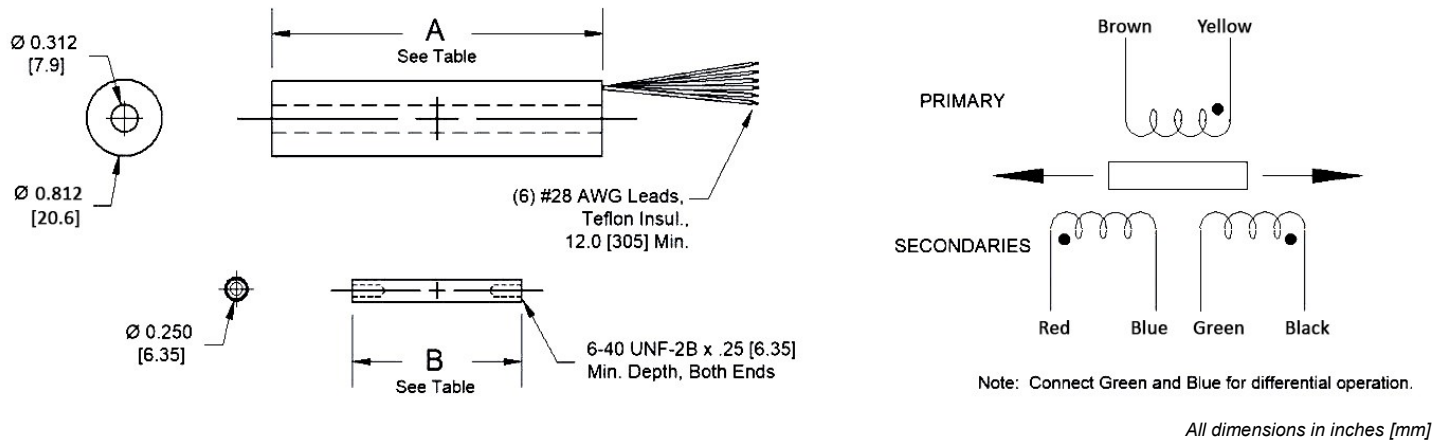
These swaged-end sensors are constructed entirely of stainless steel and are resistant to dust and temperature. The coil windings are sealed using an epoxy potting compound providing excellent protection against shock and vibration.

The T-812-A series will operate with most any conventional differential input AC LVDT signal conditioner, but operation with ratiometric signal conditioning is not recommended. HGSI offers a full line of compatible AC LVDT signal conditioners. Please contact us for a recommendation.

Specifications

Input Voltage:	3 Vrms (nominal)
Input Frequency:	400 Hz to 10 kHz
Linearity Error:	$\leq \pm 0.15\%$ of FSO typical, $\pm 0.25\%$ maximum
Null Voltage:	0.5% of FS
Repeatability:	0.01% of FS
Hysteresis:	0.01% of FS
Operating Temperature:	-54 to +135°C (-65 to +275°F) - Standard Temperature Version -54 to +204°C (-65 to +400°F) - High Temperature Version
Thermal Coefficient:	$< -0.02\%/^{\circ}\text{C}$ of FS ($< -0.01\%/^{\circ}\text{F}$ of FS)
Humidity:	90% RH
Housing:	Stainless steel
Lead Wires:	28 AWG Teflon™ insulated, 12" length (305 mm)
Life Expectancy:	> 100 million cycles
Shock Rating:	1000g, 11 mS
Vibration Rating:	20 g to 2 kHz
IP Rating:	IEC IP61
Country of Manufacture:	Made in the USA

T-812-A Series AC LVDT Linear Position Sensor



Specifications

	T-812-A-050	T-812-A-100	T-812-A-200	T-812-A-500	T-812-A-1000	T-812-A-2000
Measuring Range (in) [mm]	± 0.050 [± 1.2]	± 0.100 [± 2.5]	± 0.200 [± 5.0]	± 0.500 [± 12.5]	± 1.0 [± 25]	± 2.0 [± 50]
Sensitivity (mV/V/0.001 in) [mm]	6.5 [255]	4.0 [155]	2.4 [95]	0.65 [25]	0.65 [25]	0.39 [15]
Dimension A (in) [mm]	1.13 [28.7]	1.75 [44.5]	2.50 [63.5]	5.02 [127.5]	6.51 [165.4]	10.02 [254.5]
Dimension B (in) [mm]	0.80 [20.3]	1.25 [31.7]	1.65 [41.9]	3.45 [87.6]	3.45 [87.6]	5.30 [134.6]

	T-812-A-3000	T-812-A-4000	T-812-A-5000	T-812-A-7500	T-812-A-10000
Measuring Range (in) [mm]	± 3.0 [± 75]	± 4.0 [± 100]	± 5.0 [± 125]	± 7.5 [± 190]	± 10.0 [± 250]
Sensitivity (mV/V/0.100 in) [mm]	0.26 [10]	0.18 [7.1]	0.13 [5.1]	0.12 [4.3]	0.08 [3.1]
Dimension A (in) [mm]	12.75 [323.9]	15.20 [386.1]	17.75 [450.9]	22.85 [580.4]	30.64 [778.3]
Dimension B (in) [mm]	6.20 [157.5]	6.20 [157.5]	6.20 [157.5]	7.00 [177.8]	9.50 [241.3]

Ordering Information

Model	Measuring Range	Options
T-812-A	- □ □ □	- □
	050 ± 0.050 inches 100 ± 0.100 inches 200 ± 0.200 inches 500 ± 0.500 inches 1000 ± 1.0 inches 2000 ± 2.0 inches 3000 ± 3.0 inches 4000 ± 4.0 inches 5000 ± 5.0 inches 7500 ± 7.5 inches 10000 ± 10.0 inches	H High Temperature (400°F) M Metric Core Threads (M4x0.7) T Teflon™ Boreliner

Wiring Pin Out

	Color
Secondary 1 V+	Red
Secondary 1 V-	Blue
Secondary 2 V-	Green
Secondary 2 V+	Black
Primary V-	White
Primary V+	Orange

Ordering Example

T-812-A-500: AC LVDT, ± 0.500 inch Measuring Range

