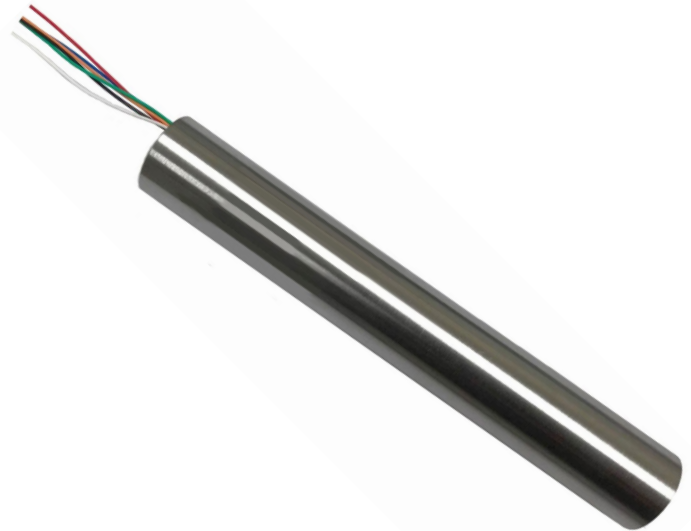


T-750-D Series DC LVDT Linear Position Sensor

Features

- Free Core design
 - 0 to ± 10 VDC output
 - Stroke lengths from ± 0.05 to ± 10 inches
 - Non-Linearity better than $\pm 0.25\%$ of FS
- Stainless steel housing sealed to IP61



Applications

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

Overview

The HGSI T-750-D series DC 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.

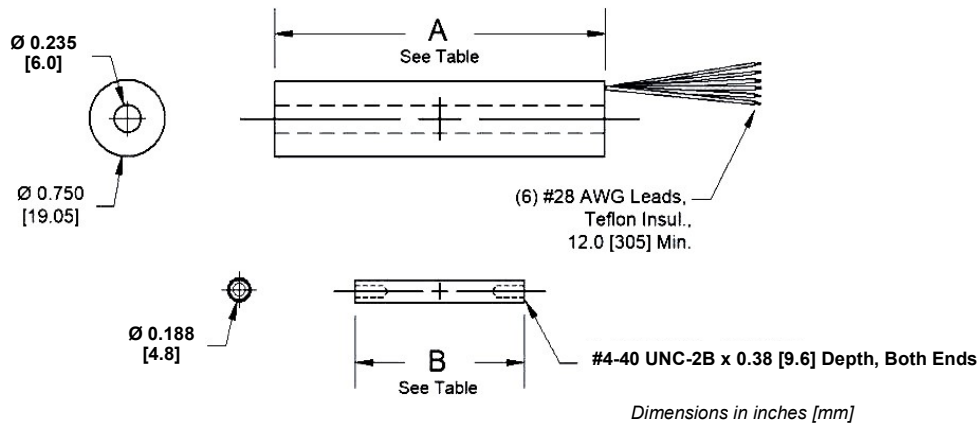
These swaged-end sensors are constructed entirely of stainless steel and are resistant to dust and temperature. The coil windings are sealed using an epoxy potting compound providing excellent protection against shock and vibration.

The amplifier electronics are contained within the housing, no need for an external signal conditioner. The ± 10 VDC output is precalibrated at the factory.

Specifications

Full Scale Output:	± 10 VDC
Input Power:	± 15 VDC, ± 25 mA
Linearity Error:	$\leq \pm 0.15\%$ of FSO typical, $\pm 0.25\%$ maximum
Resolution:	16 bit
Repeatability:	0.01% of FS
Hysteresis:	0.01% of FS
Bandwidth:	125 Hz update rate (analog signal output)
Operating Temperature:	-20 to +85°C (0 to +185°F)
Thermal Coefficient:	$< -0.025\%/^{\circ}\text{C}$ of FS ($< -0.014\%/^{\circ}\text{F}$ 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-750-D Series DC LVDT Linear Position Sensor



Specifications

	T-750-D-050	T-750-D-125	T-750-D-250	T-750-D-500	T-750-D-1000	T-750-D-2000
Measuring Range (in) [mm]	± 0.050 [± 1.2]	± 0.125 [± 3.2]	± 0.250 [± 6.3]	± 0.500 [± 12.5]	± 1.0 [± 25]	± 2.0 [± 50]
Scale Factor (V/in) [V/mm]	200 [8.0]	80 [3.3]	40 [1.6]	20 [0.8]	10 [0.4]	5 [0.2]
Dimension A (in) [mm]	2.86 [72.5]	3.48 [88.3]	4.24 [107.7]	6.74 [171.2]	8.24 [209.3]	11.21 [284.7]
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-750-D-3000	T-750-D-5000	T-750-D-10000
Measuring Range (in) [mm]	± 3.0 [± 75]	± 5.0 [± 125]	± 10.0 [± 250]
Scale Factor (V/in) [V/mm]	3.3 [0.13]	2.0 [0.08]	1.0 [0.04]
Dimension A (in) [mm]	14.49 [368.0]	19.49 [495.0]	32.38 [822.5]
Dimension B (in) [mm]	6.20 [157.5]	6.20 [157.5]	9.50 [241.3]

Ordering Information

Model	Measuring Range	Options
T-750-D	- □ □ □	- □
	050 ± 0.050 inches 125 ± 0.125 inches 250 ± 0.250 inches 500 ± 0.500 inches 1000 ± 1.0 inches 2000 ± 2.0 inches 3000 ± 3.0 inches 5000 ± 5.0 inches 10000 ± 10.0 inches	L Improved Linearity ($\leq \pm 0.10\%$) M Metric Core Threads (M3x0.5) T Teflon™ Boreliner

Wiring Pin Out

	Color
±10 VDC Output	White
Output Common	Green
Power Common	Green
+15 VDC Power In	Red
-15 VDC Power In	Black

Ordering Example

T-750-D-500: ± 10 VDC Output, ± 0.500 inch Measuring Range

