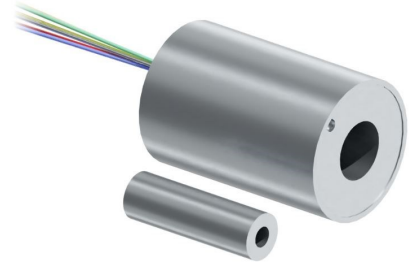


# T-750-E Series DC LVDT Linear Position Sensor

## Features

- Free Core design
- 0 to 10 VDC output
- Stroke lengths from 0.100 inches to 20 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-E 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.

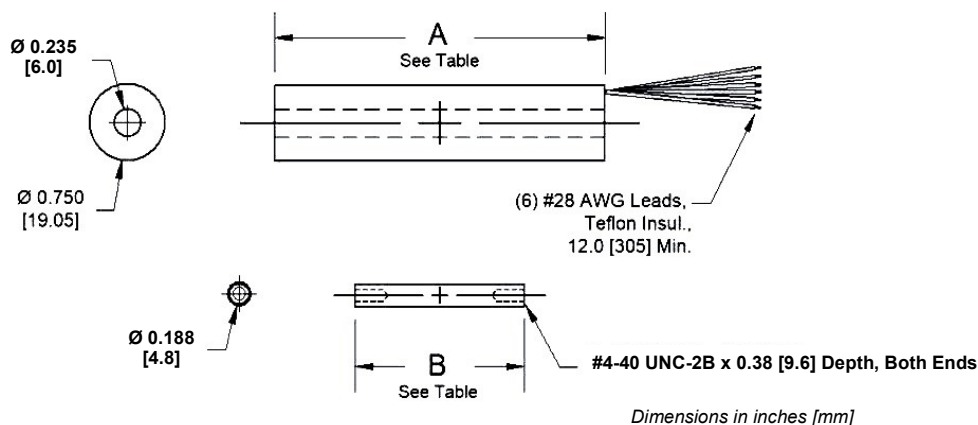
The amplifier electronics are contained within the housing, no need for an external signal conditioner. The 0 to 10 VDC output is precalibrated at the factory.

## Specifications

<b>Full Scale Output:</b>	0 to 10 VDC
<b>Input Power:</b>	15 to 24 VDC, 30 mA (nominal)
<b>Linearity Error:</b>	$\leq \pm 0.15\%$ of FSO typical, $\pm 0.25\%$ maximum
<b>Resolution:</b>	16 bit
<b>Repeatability:</b>	0.01% of FS
<b>Hysteresis:</b>	0.01% of FS
<b>Bandwidth:</b>	125 Hz update rate (analog signal output)
<b>Operating Temperature:</b>	-20 to +85°C (0 to +185°F)
<b>Thermal Coefficient:</b>	$< -0.025\%/^{\circ}\text{C}$ of FS ( $< -0.014\%/^{\circ}\text{F}$ of FS)
<b>Humidity:</b>	90% RH
<b>Housing:</b>	Stainless steel
<b>Lead Wires:</b>	28 AWG Teflon™ insulated, 12" length (305 mm)
<b>Life Expectancy:</b>	> 100 million cycles
<b>Shock Rating:</b>	1000g, 11 mS
<b>Vibration Rating:</b>	20 g to 2 kHz
<b>IP Rating:</b>	IEC IP61
<b>Country of Manufacture:</b>	Made in the USA



# T-750-E Series DC LVDT Linear Position Sensor



## Specifications

	T-750-E-100	T-750-E-250	T-750-E-500	T-750-E-1000	T-750-E-2000	T-750-E-4000
Measuring Range (in) [mm]	0.100 [2.5]	0.250 [6.3]	0.500 [12.7]	1.0 [25.4]	2.0 [50.8]	4.0 [102]
Scale Factor (V/in) [V/mm]	100 [4.0]	40 [1.6]	20 [0.8]	10 [0.4]	5.0 [0.2]	2.5 [0.1]
Dimension A (in) [mm]	2.86 [72.5]	3.48 [88.3]	4.24 [107]	6.74 [171]	8.24 [209]	11.21 [284]
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]

	T-750-E-6000	T-750-E-10000	T-750-E-20000
Measuring Range (in) [mm]	6.0 [152]	10.0 [254]	20.0 [508]
Scale Factor (V/in) [V/mm]	1.6 [0.06]	1.0 [0.04]	0.5 [0.02]
Dimension A (in) [mm]	14.49 [368]	19.49 [495]	32.38 [822]
Dimension B (in) [mm]	6.20 [157]	6.20 [157]	9.50 [241]

## Ordering Information

Model	Measuring Range	Options
T-750-E	- □ □ □	- □
	<b>100</b> 0 to 0.100 inches <b>250</b> 0 to 0.250 inches <b>500</b> 0 to 0.500 inches <b>1000</b> 0 to 1.0 inches <b>2000</b> 0 to 2.0 inches <b>4000</b> 0 to 4.0 inches <b>6000</b> 0 to 6.0 inches <b>10000</b> 0 to 10.0 inches <b>20000</b> 0 to 20.0 inches	<b>L</b> Improved Linearity (<math>\leq \pm 0.10\%</math>) <b>M</b> Metric Core Threads (M3x0.5) <b>T</b> Teflon™ Boreliner

## Wiring Pin Out

	Color
0 to 10 VDC Output	Blue
Output Common	Black
Power Common	Black
+ VDC Power In	Red

## Ordering Example

T-750-E-1000: 0 to 10 VDC Output, 0 to 1.0 inch Measuring Range

