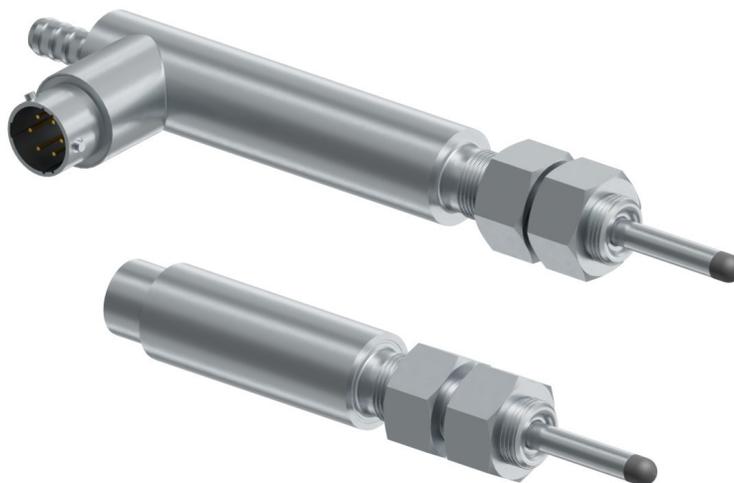


GH-750-A Series AC Spring Loaded LVDT Linear Position Sensor

Features

- Spring loaded probe
- Air-extend option available
- Stroke lengths from ± 0.05 to ± 2 inches
- Non-Linearity better than $\pm 0.25\%$ of FS
- Stainless steel housing sealed to IP68



Applications

- Laboratory R&D Materials Testing
- Industrial Gauging Test Stands
- Factory Automation

Overview

The HGSi GH-750-A series AC Spring Loaded Linear Variable Differential Transformer (LVDT) Position Sensors are used to monitor and track the linear motion or position of a target. These spring-loaded ruggedized sensors are ideal for use in industrial and laboratory applications including automotive R&D, motorsports, industrial, motion control, medical, military and aerospace.

The sensor shaft is spring loaded and guided by a pair of precision sleeve bearings. These hermetically sealed sensors are constructed entirely of stainless steel and are resistant to dust, water, temperature, shock, and vibration. For the air-extend option, the shaft is extended by introduction of a low pressure (10-30 psi), clean, dry air supply, with a regulated flow, through a 1/4 barbed fitting on the end of the unit. With the release of pressure, an internal spring returns the probe to its fully retracted position.

The GH-750-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.

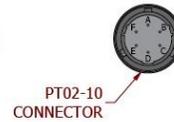
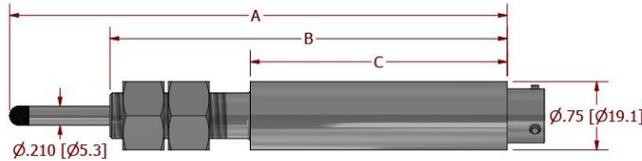
Specifications

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
Bandwidth:	3 Hz (mechanical)
Operating Temperature:	Standard Version: -54 to +135°C (-65 to +275°F) High Temperature Version: -54 to +204°C (-65 to +400°F)
Thermal Coefficient:	$< -0.02\%/^{\circ}\text{C}$ of FS ($< -0.01\%/^{\circ}\text{F}$ of FS)
Humidity:	90% RH
Housing:	Stainless steel
Contact Tip:	AGD #9 hardened tool steel, chrome plated, #4-48 thread, interchangeable
Mating Connector:	Amphenol PT06A-10-6S(SR) or equivalent
Life Expectancy:	> 100 million cycles
Shock Rating:	1000g, 11 mS
Vibration Rating:	20 g to 2 kHz
IP Rating:	IEC IP68

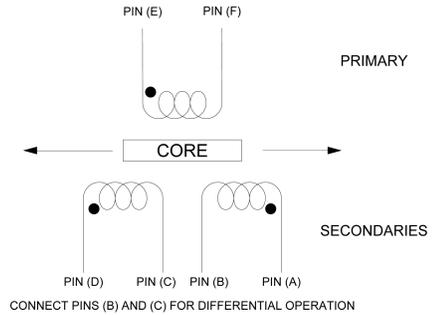
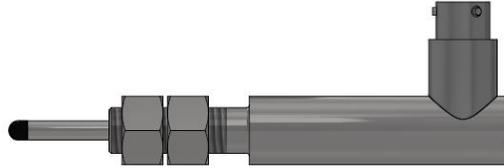


GH-750-A Series AC Spring Loaded LVDT Linear Position Sensor

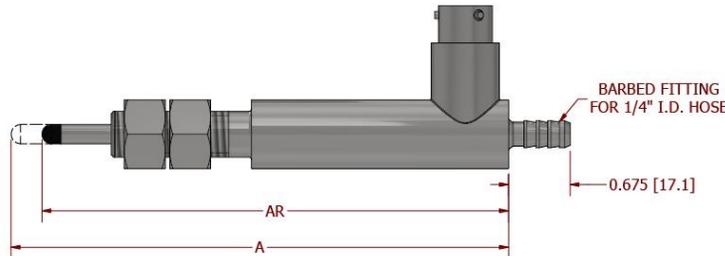
GH-750-A
AXIAL CONNECTOR
SPRING EXTENDED



GHR-750-A
RIGHT ANGLE CONNECTOR
SPRING EXTENDED



GHRA-750-A
RIGHT ANGLE CONNECTOR
AIR EXTEND/SPRING RETRACT



Specifications

	GH-750-A-050	GH-750-A-125	GH-750-A-250	GH-750-A-500	GH-750-A-1000	GH-750-A-2000
	GHR-750-A-050	GHR-750-A-125	GHR-750-A-250	GHR-750-A-500	GHR-750-A-1000	GHR-750-A-2000
	GHRA-750-A-050	GHRA-750-A-125	GHRA-750-A-250	GHRA-750-A-500	GHRA-750-A-1000	GHRA-750-A-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]
Sensitivity (mV/V/0.001 in) [mm]	6.1 [240]	3.9 [153]	2.5 [98]	0.65 [26]	0.61 [24]	0.37 [14]
Pretravel (in) [mm]	0.12 [3.0]	0.13 [3.3]	0.10 [2.5]	0.10 [2.5]	0.05 [1.3]	0.02 [0.5]
Overtravel (in) [mm]	0.12 [3.0]	0.13 [3.3]	0.10 [2.5]	0.10 [2.5]	0.05 [1.3]	0.02 [0.5]
Dimension A (in) [mm]	4.61 [117]	5.26 [134]	6.02 [153]	10.54 [268]	12.81 [322]	20.91 [531]
Dimension B (in) [mm]	3.51 [89]	4.15 [105]	4.91 [125]	9.05 [230]	10.51 [267]	16.35 [415]
Dimension C (in) [mm]	1.97 [50]	2.60 [66]	3.35 [85]	5.88 [149]	7.34 [186]	10.87 [276]
Dimension AR (in) [mm]	4.27 [108]	4.75 [121]	5.32 [135]	9.34 [237]	10.71 [272]	16.87 [428]
Spring Rate (lb/in)	0.23	0.23	0.14	0.14	0.14	0.23
Weight (oz) [g]	2.7 [77]	3.3 [94]	3.6 [102]	5.6 [159]	7.0 [198]	11.0 [312]

Ordering Information

Model	Options	OD	Measuring Range	Options
GH	<input type="checkbox"/> <input type="checkbox"/>	-750	- <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	-
	(Blank) Axial connector R Right angle connector RA Right angle connector and air-extend		050 ± 0.050 inches 125 ± 0.125 inches 250 ± 0.250 inches 500 ± 0.500 inches 1000 ± 1.0 inches 2000 ± 2.0 inches	H High Temperature 204°C (400°F)

Ordering Example

GHR-750-A-500: AC LVDT, Right angle connector, ± 0.500 inch Measuring Range