

GHEX19 Series

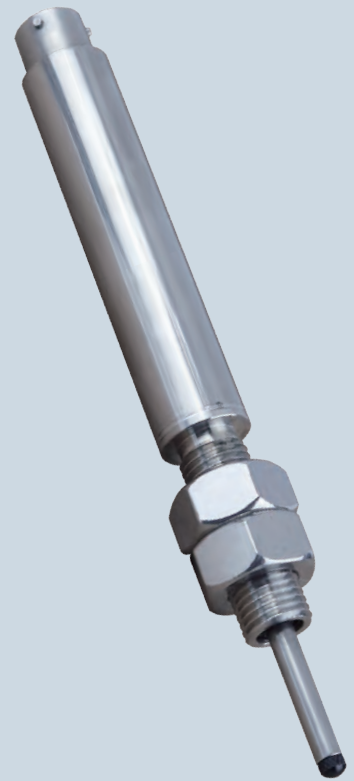
Intrinsically Safe Explosion-Proof Spring-Loaded LVDT

Applications

Hazardous environment
Oil-gas field
LNG
Valve position measurement
Material Testing Machine
Automated production line

Features

range: 6~100mm
Explosion-proof grade: Ex ia II C T6 Ga
24V DC Supply
4-20mA DC current output
Linearity: $\leq \pm 0.25\%$ FS, ($\pm 0.1\%$ optional)
Aviation connector
IP-68 protection rating



Ex CE RoHS

The GHEX19 series intrinsically safe explosion-proof spring-loaded DC output LVDT position sensor is widely used in various position measurement applications. The sensor features a stainless steel housing and achieves an IP-68 protection rating, capable of withstanding harsh environmental conditions.

The sensor consists of a spring-loaded shaft that operates within a precision sleeve bearing and is connected to the LVDT core. Repeatability can reach 0.6 microns or better. The spring-loaded probe extends and retracts freely, and depending on the application environment, the spring force can be adjusted from 50g to 500g (customized).

The sensor incorporates built-in electronics, retaining the technical advantages of AC LVDTs (such as frictionless operation and high dynamic response) while offering ease of use and simple construction. The DC output facilitates integration with PLCs, digital indicators, A/D converters, computer-based data processors, and QC data collection systems.

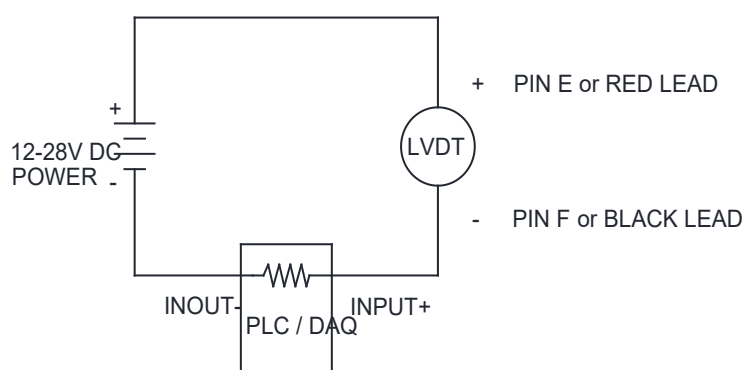
The GHEX19 series LVDT sensors cover a measuring range of 6mm to 100mm. They feature high resolution, excellent repeatability, and low hysteresis.

Explosion-Proof Statement: The explosion-proof marking of this product is Ex ia IIC T6 Ga. The effective ambient temperature range for intrinsic safety is -20°C to $+60^{\circ}\text{C}$. Under the maximum ambient temperature of $+85^{\circ}\text{C}$ and specified fault conditions, the maximum temperature of any surface of the equipment shall not exceed 85°C . It is suitable for Zone 0, Group IIC explosive gas atmospheres. Beyond the above ambient temperature range, the explosion-proof performance is not guaranteed. This explosion-proof temperature limit refers to the air ambient temperature where the sensor electronics body is located; the probe rod may contact higher-temperature measured objects, but thermal insulation and heat dissipation measures must be taken to ensure the electronics body temperature does not exceed the limit.

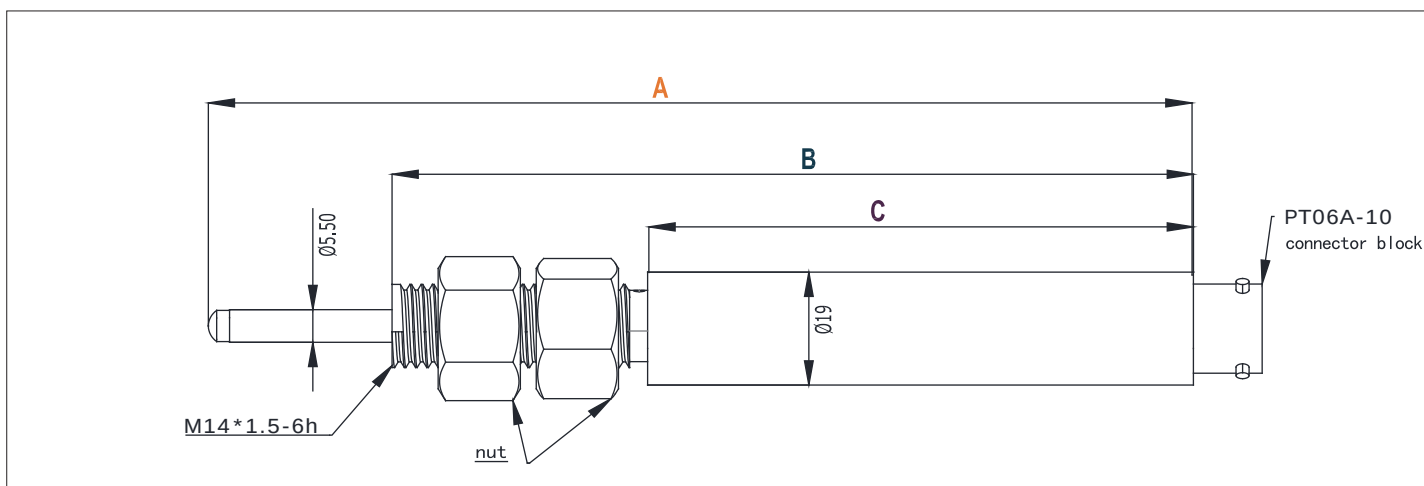
General Specifications

Parameters	Specifications
Input voltage:	24 V DC
Output Type:	4-20mA DC
Linearity error :	$<\pm 0.25\%$ of FSO, $<\pm 0.1\%$ (optional)
Repeatability error:	$<0.6\mu\text{m}$
Hysteresis error	$<0.01\%$ of FSO
Operating temperature :	-20°C to $+60^{\circ}\text{C}$
Thermal coefficient:	$-0.02\%/^{\circ}\text{C}$ (Rated Value)

Wiring Diagram



Dimensions



Parameters		006	013	025	050	100
Ranges	mm	6	13	25	50	100
Dimension "A"	mm	176.7	191.7	308	373.7	579.7
Dimension "B"	mm	148	163	270	310	459
Dimension "C"	mm	108	123	190	230	320
Pre-travel	mm	3.3	4.5	1	0.85	2.0

Ordering Guide

GHEX19	4	050
	Output	Ranges
	4 : 4-20mA	006 : 6mm
		013 : 13mm
		025 : 25mm
		050 : 50mm
		100 : 100mm

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