

GDD19 Series General DC LVDT (Spring-loaded type)

Product Picture:



BENEFITS:

- Ranges of 2.5~ 100mm
- DC input
- High level output
- Non-linearity less than $\pm 0.25\%$ or equal
- Industry-standard 19mm diameter
- Through-bore design
- Frictionless operation
- Dynamic response
- Rebound structure, convenient for using

General Description:

LVDT (Linear Variable Differential Transformer) consists of a primary coil and two secondary coils symmetrically spaced on a cylindrical form. A free-moving rod-shaped magnetic core inside the coil assembly provides a path for the magnetic flux linking the coils. When the core is moved, it produces a differential voltage output that varies linearly with changes in core position. This technology has now been widely applied to measure different linear position, e.g. tension, expansion, diameter, conicity thickness, eccentricity, differential pressure, liquid level, force, weight and etc. The LVDT has the features of frictionless, low power, high resolution and long duration, which can be applied in harsh environment like high temperature, high humidity and dust.

spring-loaded DC-LVDTs are designed for a wide range of position measurement and dimensional gaging applications. GDD19 Series product adds a reset spring and a sleeve bearing to the LVDT based on the GD19 series, this rebound type structure provides a great convenience in installation for the customers. There has integrated a standard signal module inner in the products, the DC standard signal such as 0-10VDC, 4-20mA will be more suitable for interface with the general digital controller PLC and Computer Data Acquisition System.

This series provide highly reliable, contactless operation with high resolution, excellent repeatability, dynamic and response, with the added convenience and simplicity of DC input and precalibrated high level output.

Application

- Pneumatic cylinder position sensing
- Servo valve positioning
- Valve position sensing
- Medical equipment
- Automatic assembly equipment
- Hydraulic cylinder position

General Specification:

stroke length	0~2.5 mm to 0~100 mm
Output	4~20 mA 0~5V 0~10V @ 15~30V DC
	0.5~4.5V @ 5V DC (ratiometric)
Maximum load resistance	800 Ω @ 30 V DC (for current output)
linearity error	$\pm 0.5\%$ FS, $\pm 0.25\%$ FS BFSL option

Repeatability Error	$\leq \pm 0.01\%$ FS
Hysteresis Error	$\leq \pm 0.01\%$ FS
Thermal coefficient	$\leq \pm 0.03\%/^{\circ}\text{C}$
Noise	$\leq 15\text{mV rms}$ 或 $25\mu\text{A rms}$
Frequency Response (-3dB)	250 Hz or 50Hz (for current output)
Stability	superior to $\pm 0.25\%$ FS/YEAR
Operating temperature	-25 $^{\circ}\text{C}$ to 85 $^{\circ}\text{C}$

Ordering Information:

Model		Description
Series	G GD 1 9	GGD19 Series
Protection Rate	P	General
	I	Intrinsically Safe
Output	2	0.5~4.5V DC
	3	0~5V DC
	4	0~10V DC
	5	4~20 mA
	X	Special
Accuracy	5	±0.5%
	2	±0.25%
Electronical Connection	C	1 m shielded cable
	D	Connector
	X	Others
Model	- 2 5	0~25 mm
E.G.	G GD 1 9 P 4 5 C - 2 5	General type, stroke 0-25 mm, output 0-10VDC, 1 meter shielded cable

Parameter	Model	GGD19						
		2.5	5	10	15	25	50	100
Stroke(mm)		2.5	5	10	15	25	50	100
Tube length A (mm)		89	99	119	139	179	219	299
Spring length B (mm)		14.5	16	23	29	41	71	130
Weight(g)		72	86	95	101	114	147	176

Maximum Loop Resistance: Dimensions:

UNIT: mm

