Position and proximity sensors

Spring-Return LVDT Displacement Sensor, Ø20 mm, 2.5 to 100 mm

Model DW-LVDT

Spring-return LVDT displacement sensor in a Ø20 mm 304 stainless steel housing with built-in demodulator, ranges from 2.5 to 100 mm and 0–5 V, 0–10 V, 4–20 mA or RS485 output from a single DC supply.



Range
2.5–100 mm

Output
0–5 V, 0–10 V, 4–20 mA or RS485

Resolution
≤0.1 µm

Features

- Ø20 mm 304 stainless steel housing with spring-return guided plunger
- Single DC supply with built-in signal demodulator
- 0–5 V or 0–10 V (3-wire), 4–20 mA (2-wire) or RS485 output
- Ranges from 2.5 to 100 mm with high resolution and repeatability
- No sliding contacts, long service life
- Hard, wear-resistant stainless steel probe tip

Applications

Shaft runout measurement, Hydraulic cylinder positioning, Valve position detection and control, Roll gap measurement, Brake wear measurement on vehicles, Quality control and metrology

Specifications

Performance

Measuring range	2.5 / 5 / 10 / 15 / 25 / 50 / 100 mm
Non-linearity	Analog: ±0.25% or ±0.5% (1%, 3% and 5% classes also listed); RS485: 0.25% or 0.1%
Resolution	≤0.1 µm; 16-bit (RS485 output)
Temperature coefficient	Zero ≤0.01%/°C; sensitivity ≤0.025%/°C

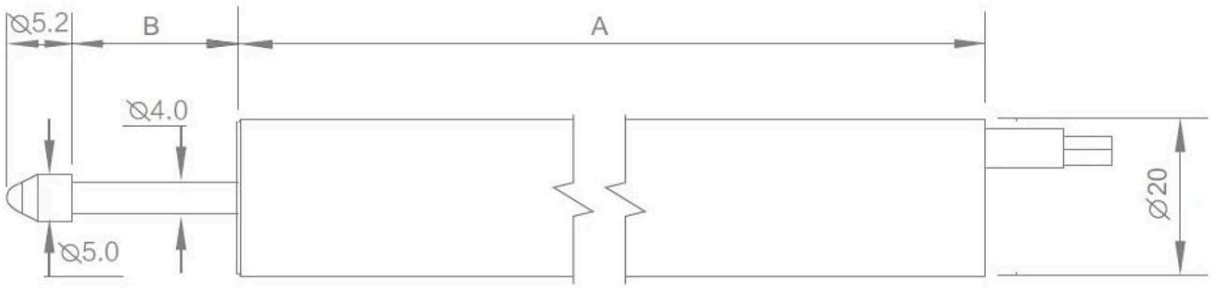
Output	
Output signal	0–5 V (9–12 V DC supply); 0–10 V or 4–20 mA 2-wire (15–28 V DC); RS485 (9–12 V DC); ±5 V, ±10 V or AC output to order
Communication protocol	Modbus RTU or ASCII
Baud rate	2400–115200 (default 9600)
Load resistance	500 Ω recommended at 24 V DC (4–20 mA)
Electrical	
Supply voltage	9–28 V DC, single supply
Operating current	≤12 mA (voltage output); 4–20 mA loop current (2-wire version)
Mechanical	
Housing material	304 stainless steel, Ø20 mm (other diameters on request)
Probe diameter	Ø4.0 mm plunger, Ø5.0 mm ball tip
Body length	106 / 116 / 136 / 156 / 196 / 236 / 346 mm for 2.5 / 5 / 10 / 15 / 25 / 50 / 100 mm (+62 mm with RS485)
Plunger extension	5 / 8 / 15 / 22 / 34 / 60 / 115 mm for 2.5 to 100 mm range
Electrical connection	Straight cable outlet or aviation connector
Installation method	Clamp mounting; clamp accessory 34 × 56 × 25 mm, Ø20.2 mm bore
Environmental	
Operating temperature	−25 to +85 °C

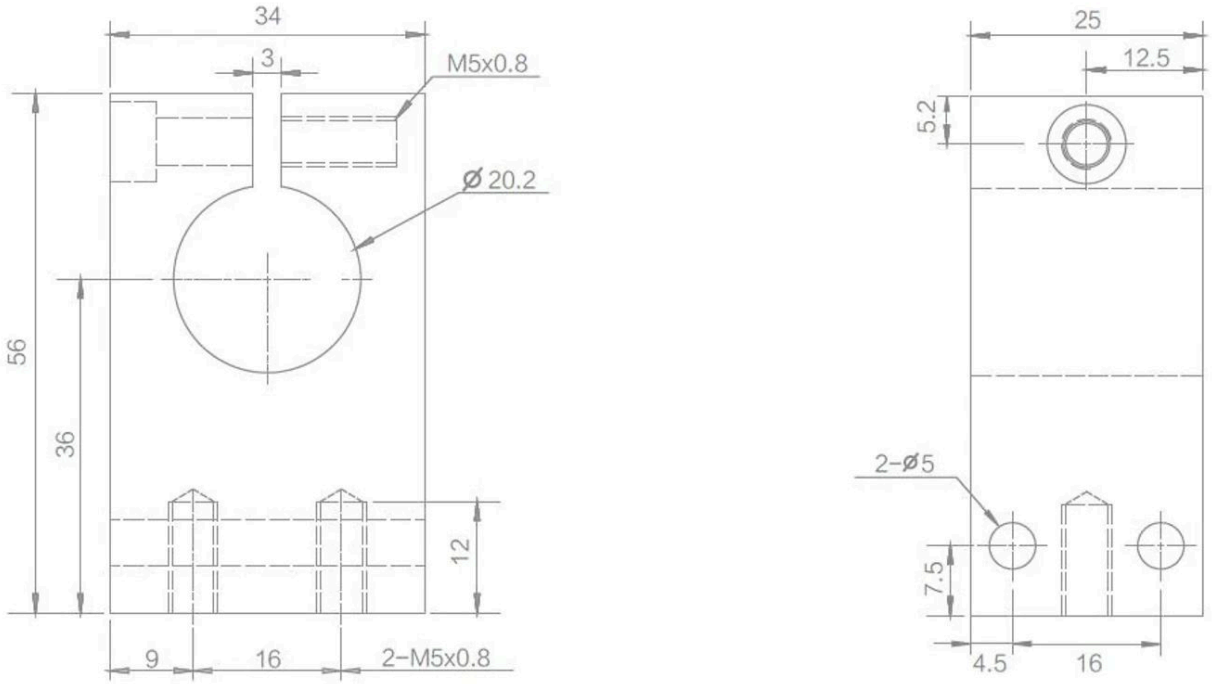
Ordering and support

Pricing, samples, lead time and custom versions: xyx@gzdwin.com, +86 181 0280 8901.

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Dimensions and wiring





Drawings are for reference. Dimensions in millimetres unless stated.