

Features

- Best-In-Class Stroke to Length Ratio
- Resolution up to 160,000:1
- Accuracy .05% of Full Scale
- Friction Free Sensors
- Inductive & Non-Contact Options



Applications

- Production-Line Monitoring Process Control
- Miniature Position Control Elements
- Linear and Angular Motion Control
- Measuring Material/Structure Strain and Deflection
- Dimensional Gauging for Quality Control

Displacement Sensors

Our line of displacement sensors (including gauging and non-gauging and micro- and subminiature) delivers a very high linear stroke range to body length ratio, and they can be used in environments where traditional LVDTs are too large. They are extremely robust and capable of operating at temperatures up to 175°C in corrosive media such as saline, oil, and brake fluid. The near frictionless design enables sensors to operate over millions of cycles without wear or degradation in signal quality.

LS-LVDT®

COMPACT LONG-STROKE LVDT®



- Extremely Compact Packaging: sensor body only 25 mm longer than stroke length
- Linear Stroke Length: 50, 100, and 150 mm
- Precision Measurement: $\pm 0.2\%$ to $\pm 2\%$ accuracy

M-LVDT® & MG-LVDT®

MICROMINIATURE LVDT®



- Outside Diameter: 1.5 mm (standard version), 1.8 mm (high resolution)
- Linear Stroke Length: 3, 6, 9 mm (standard), 1.5 mm (high resolution)
- Approx. Body Length: 4mm + 2.5x stroke length

MICROMINIATURE GAUGING LVDT®



- Outside Diameter: 1.5 mm (standard version), 1.8 mm (high resolution)
- Linear Stroke Length: 3, 6, 9 mm (standard), 1.5 mm (high resolution)
- Approx. Body Length: 4mm + 2.5x stroke length

S-LVDT® & SG-LVDT®

SUBMINIATURE LVDT®



- Outside Diameter: 4.76 mm (3/16 inch)
- Linear Stroke Length: 4, 8, 24, 38 mm (std.), 6 mm (hi-res), 500 μm or less (nano)
- Approx. Body Length: 10mm + 3x stroke length

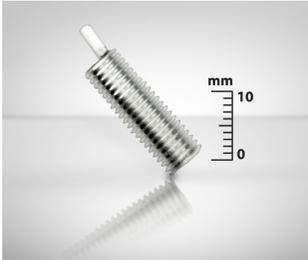
SUBMINIATURE GAUGING LVDT®



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Non-Contact Displacement Sensors

Ideal for difficult sensing applications, the NC-DVRT® is designed to measure the displacement and proximity of a metal target without physical contact. The measurement is unaffected by non-metallic, non-conductive materials, such as polymers and biomaterials. The stainless steel shell of the device houses two coils; one for sensing and the other for temperature compensation.



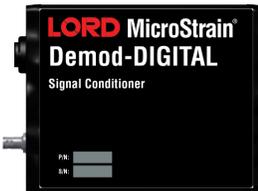
NC-DVRT®

NON-CONTACT DISPLACEMENT SENSOR

- Stroke length: 1 mm, 2.5 mm
- Diameter x length: 4.83 mm x 19.0 mm, 12.70 mm x 19.0 mm
- Operating temperature: -55° to 175°C

Signal Conditioners FOR DISPLACEMENT SENSORS

Designed for ease of use and versatility, the one-channel DVRT-2 provides complete conditioning for all LORD MicroStrain DVRTs. It offers exceptional resolution and linearity in a small, convenient module. A separate backplane accessory increases the DVRT-2's capability to four channels.



DEMOD-DIGITAL

- Signal-to-noise ratio: 10,000 to 1
- Drift over time: TBD [testing]
- Operating temp.: -20° to 60°C
- 70 x 95 x 20 mm



DEMOD-DVRT®-2

- Signal-to-noise ratio: 7600 to 1
- Drift over time: 9 µV/hr
- Operating temp.: -20° to 60°C
- 70 x 95 x 20 mm



Also available: the DEMOD-DC® in-line signal conditioner. With integral electronics, the user connects power, ground, and analog-out, and the DEMOD-DC outputs a buffered, high-frequency response voltage proportional to linear position.

Also available from LORD Sensing-MicroStrain

Wireless Sensing Systems

microstrain.com/wireless

LXRS lossless protocol enables synchronized burst and continuous high-speed sampling from multiple inputs as part of a scalable network. Custom/OEM also available.



Inertial Sensors

microstrain.com/inertial

Miniature sensors for orientation, heading, attitude, position, and velocity. IMU, AHRS, and GPS/INS sensors available, including tactical-grade and ruggedized options.