

## LS-LVDT

### Compact Linear Displacement Sensor



LS-LVDT- *robust and highly accurate displacement sensor with revolutionary stroke-body length ratios*

Ideal for linear control and precision measurement applications, the miniature LS- LVDT provides fast response and rugged packaging. Configuration options can provide cutting-edge features, including micron resolution, linear analog output, flat dynamic response to kHz levels, and/or very low temperature coefficients. Its free sliding transducer core is lightweight, strong, and corrosion-resistant. The cores are precision ground to insure a close sliding fit within the open bore of the stainless steel lined LS-LVDT body. This precision allows the LS-LVDT to achieve extremely high repeatability. The sensing head is capable of total submersion in aqueous environments. **NOTE:** This sensor is designed for use with LORD Sensing DEMOD signal conditioners.

#### Product Highlights

- 50 mm, 100 mm, and 150 mm stroke lengths available
- Extremely compact packaging with sensor body only 25 mm longer than the stroke length
- Unguided armature
- For use with standard LORD DEMOD signal conditioners.
- $\pm 0.2\%$  to  $\pm 2\%$  accuracy

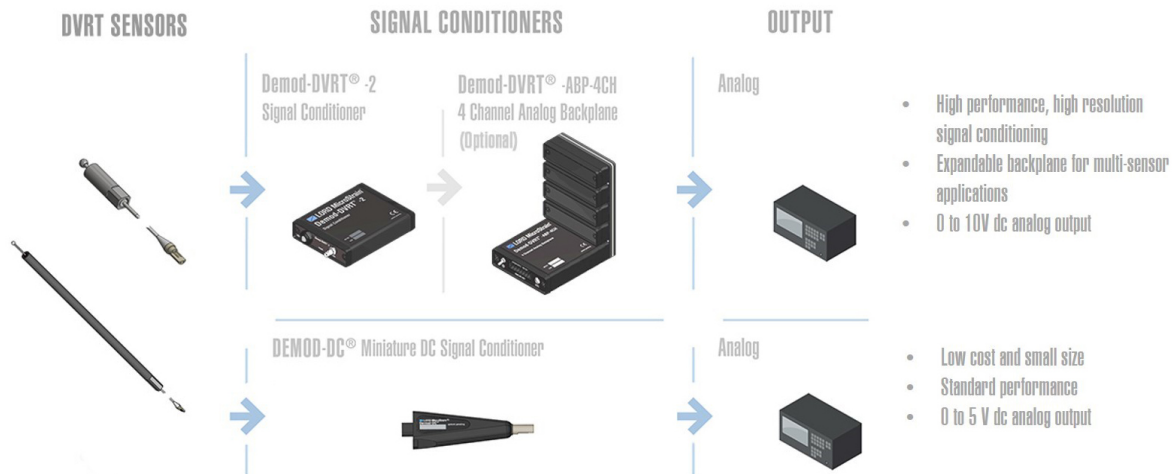
#### Features and Benefits

##### High Performance

- High-resolution with large stroke/size ratio
- Frictionless design for robust use over millions of cycles
- Suitable for use in harsh fluids and environments
- High dynamic range for difficult measurements

#### Applications

- Process control for production line monitoring
- Position control elements
- Measuring strain and deflection in materials and structures
- Dimensional gauging for quality control

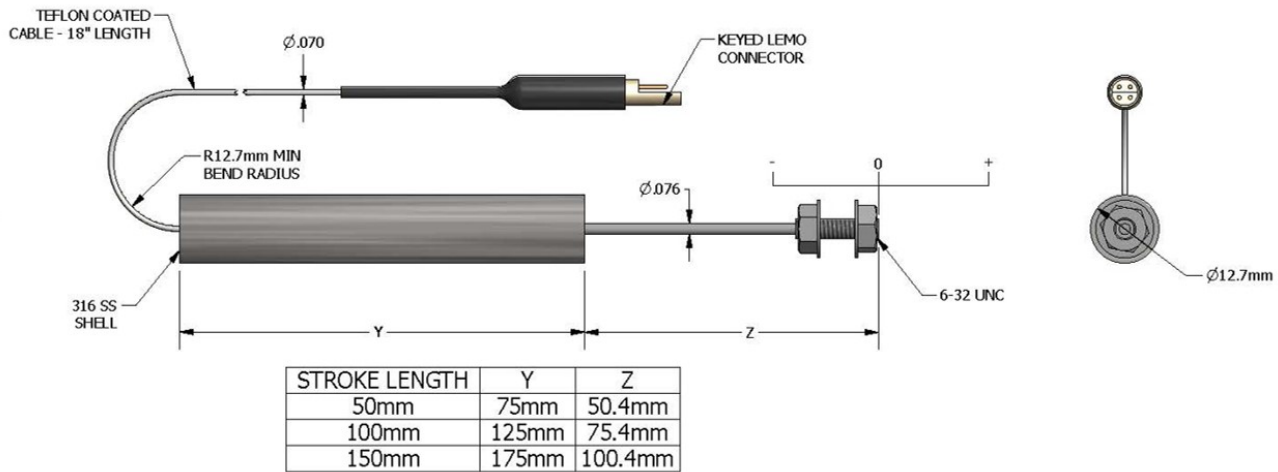


Note: LORD Displacement Sensors are compatible with LORD Wireless technology to transmit precision displacement data over wireless networks.

# LS-LVDT Compact Linear Displacement Sensor

## Specifications

Mechanical Specifications		
Linear stroke lengths	±25 mm, ±50 mm, ±75 mm	
Temperature coefficients	Offset 0.002% FS/° C typical Span 0.04% FS/° C typical	
Housing material	316 Stainless steel; (see mechanical drawing)	
Core material	316 stainless steel shell with ferrous core	
Cable material	Teflon coated	
Electrical connector	4 Pin PEEK LEMO connector	
Temperature range	-55 - 150° C	
Performance Specifications		
	DEM0D-DC	DEM0D-DVRT-2
Resolution (800 Hz Low Pass Filter)	0.2% FS typical	0.04% FS typical
Sensitivity	0-5 VDC FS	0-10 VDC FS
Accuracy	±1% Peak (typical), (±2% max) with straight line 0.2% RMS with multi-segment 0.1% RMS with polynomial	
Frequency response	800 Hz standard, 10 Hz-20 kHz optional	



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