

M-12 Series LVDTs

DESCRIPTION

The M-12 series layer wound LVDT is introduced by Schaevitz® Sensors. Because of quantum improvements in coil winding technology, Schaevitz is able to offer premium LVDT performance at standard LVDT pricing.

The M-12 series LVDT is wound on a ribless bobbin providing the smooth transfer function required for the most demanding materials testing and position feedback applications.

Precision distribution, tapered layer windings provide excellent stroke to length ratio, with no sacrifice in sensor linearity.

A constant sum of the secondaries, throughout the linear range, insures compatibility with ratiometric temperature compensation signal conditioning

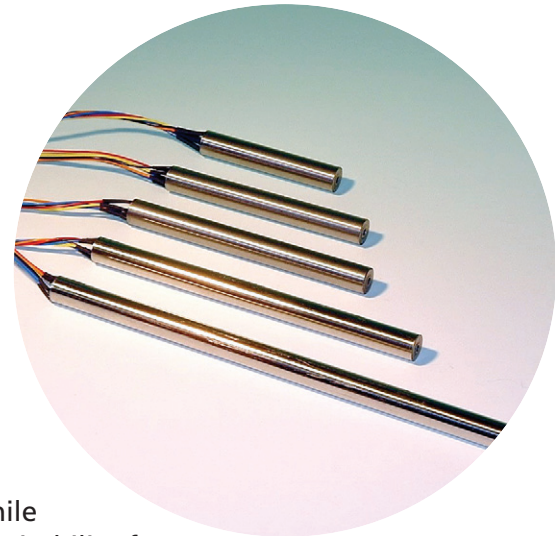
schemes.

The new M-12 series coil design has been optimized to provide the best possible temperature coefficient of sensitivity, while maintaining suitability for operation with extended cable lengths.

A seamless 400 series stainless steel case provides magnetic shielding for the noisiest electrical environments.

Vacuum coil impregnation and encapsulation ensure long term stability in the most rigorous, high vibration applications.

Available ranges are from ± 5 mm to ± 150 mm.



FEATURES

- ◆ Excellent Stroke to Length Ratio
- ◆ Smooth Transfer Function
- ◆ Constant Sum of Secondaries
- ◆ Typical T/C 150 PPM/Degree C. At 2.5 to 5.0 kHz
- ◆ Shielded Stainless Steel Case
- ◆ +/-10 to +/- 100 mm Strokes

APPLICATIONS

- ◆ Materials Testing Extensometers
- ◆ Cylinder Position Feedback
- ◆ Roller Gap Positioning
- ◆ Absolute X-Y Stage Position
- ◆ Automotive Suspension Testing
- ◆ Hydraulic Spool Valve Position Feedback
- ◆ Flight Simulators
- ◆ Aircraft Flight Control Feedback

OPTIONS

- ◆ Metric Core
- ◆ 5.0 kHz. Calibration

general specifications

Excitation:	3.0 Volts (RMS) @ 2.5 kHz (nominal)
Linearity:	± 0.25 % Maximum
Null Voltage:	0.5% Maximum of F.R.O.

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electrical specifications

Part Number	Unit	Stroke (MM)	Sensitivity $\pm 5\%$ (mV/V/MM)	Phase Shift	Z Input $\pm 20\%$ (Ω)	Z Output $\pm 20\%$ (Ω)	Zero Phase Freq (NOM)	A (MM)	B (MM)
02561036-000	M12-10	± 10	42.00	$3^\circ \pm 3^\circ$	570	540	3.9KHZ	67.0	36.0
02561037-000	M12-20	± 20	21.20	$2^\circ \pm 2^\circ$	1100	400	3.9 KHZ	97.0	46.0
02561038-000	M12-30	± 30	10.00	$2^\circ \pm 3^\circ$	1540	600	3.8 KHZ	117.0	46.0
02561039-000	M12-50	± 50	9.90	$3^\circ \pm 3^\circ$	780	825	3.8 KHZ	155.0	46.0
02561040-000	M12-100	± 100	7.10	$-3^\circ \pm 3^\circ$	1,000	1,700	1.2kHz	285.0	75.0

mechanical dimensions

