

XS-D

Schaevitz™ LVDT

- Measurement ranges from $\pm 25,4$ mm to ± 254 mm
- LVDT
- Linearity 2,0 % FS
- Output signal 2.0 ... 11 mV/V per mm
- Supply voltage 3 V_{rms}



The XS-D Series of LVDTs are specifically designed for measuring relatively large displacements where installation space is limited. The XS-D Series have a substantially greater displacement range than standard LVDTs but without the accompanying increase in body length and weight. Using special coil winding techniques, the XS-D permits linear range measurements of up to 80% of the housing length.

Compact, shock and vibration tolerant, and featuring infinite resolution and repeatability, the XS-D Series are the perfect choice for servo mechanisms, linear potentiometer replacement, or wherever precise displacement measurements are required in space restrictive applications. All models are supplied with a calibration certificate, and are available with either an imperial or metric threaded core.

■ Features

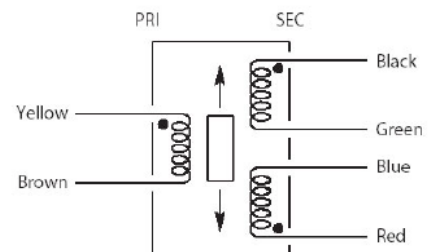
- Superior stroke-to-length ratio
- Stroke ranges from ± 25.4 mm bis 254 mm
- Smooth transfer function
- Stainless steel housing
- Calibration certificate supplied with all models

■ Applications

- Servo mechanisms
- Hydraulic actuators
- Linear potentiometer replacement
- Space restrictive installations
- Weight sensitive applications

■ Specifications

Supply voltage, sine wave:	3 V _{rms}
Input frequency range:	400 Hz ... 3 kHz
Test input frequency:	2.5 kHz
Null voltage, max.:	0.5 % of FSO
Operating temperature range:	-55 °C ... +150 °C
Shock survival:	1000 g (11 ms half-sine)
Vibration tolerance:	20 g up to 2 kHz
Housing material:	Stainless steel series AISI 410
Electr. connection	6 lead-wires, stranded 28 AWG, PTFE isolated, 300 mm



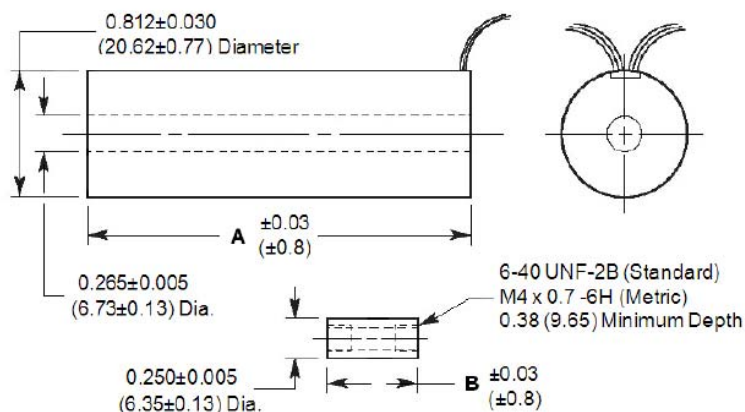
Connect Green to Blue for differential output.

Model number	Stroke		Linearity % FS	Sensitivity mV/V per		Output at stroke ends mV/V	Impedance		Phase °
	inch	mm		0.001 in	mm		Pri Ohm	Sec Ohm	
1002 XS-D	±1.0	±25.4	±2.0	0.28	11.0	0.28	175	230	+30
2002 XS-D	±2.0	±50.8	±2.0	0.16	6.3	0.32	243	103	+25
3002 XS-D	±3.0	±76.2	±2.0	0.12	4.7	0.36	306	234	-22
5002 XS-D	±5.0	±127	±2.0	0.13	5.1	0.65	240	500	+28
10002 XS-D	±10.0	±254	±2.0	0.05	2.0	0.50	462	462	0

Notes:

- All values are nominal unless otherwise noted
- Electrical specifications are for the test frequency indicated in the table
- FS: Full Scale is 2X for $\pm X$ stroke
- FSO: Full Scale Output is the output at X position for $\pm X$ stroke

Mechanical Specifications



All dimensions in inches, values in brackets in mm, approx. values.

These drawings are for information only and not intended for construction purpose. Please ask for detailed drawings.

Model number	Weight, approx.				Dimensions, approx.			
	Body		Core		A (Body)		B (Core)	
	oz	g	oz	g	inch	mm	inch	mm
1002 XS-D	2.3	65	0.09	2.5	2.57	65.2	0.45	11.4
2002 XS-D	4.1	115	0.28	8.0	5.76	146.3	1.50	38.1
3002 XS-D	4.9	140	0.24	6.8	7.50	190.5	1.25	31.8
5002 XS-D	7.6	215	0.44	12.5	12.52	318.0	2.40	61.0
10002 XS-D	16.6	470	0.88	25.0	25.06	636.5	4.00	101.6

Ordering Information

Specify the XS-D followed by the desired option number(s) ordered together.

Option number	Description
006	Metric thread core

Example:

Model 5002XS-D-006 is a XS-D LVDT with a ± 127 mm (5002XS-D) range and a metric thread core (006)

Due to continual product development, ALTHEN and partners reserve the right to vary the foregoing details without prior notice.