

# XS-C Series

## Sub-Miniature LVDT

### DESCRIPTION

The **XS-C Series** satisfies those applications involving measurement and control in pressure-sealed chambers, e.g., hydraulic actuators and pressure vessels where bulkhead mounting is permitted. It is a sealed, heavy-walled LVDT suitable for operating pressures up to 3000 psi (210 bars), and proof pressures up to 4500 psi (315 bars). The XS-C's TIG-welded stainless steel housing is highly resistant to corrosive environments. Internal magnetic and electrostatic shielding render the XS-C insensitive to external magnetic influences. For operating pressures and temperatures above 3000 psi (210 bars) and +300°F (+150°C), and for applications involving total immersion including leadwires, consult the factory.



### FEATURES

- ◆ Suitable for Operating Pressures Up to 3000 psi (210 bars)
- ◆ Bulkhead Mounting Permits Measurement and Control in Pressure-Sealed Chambers
- ◆ Calibration Certificate Supplied with All Models
- ◆ Compatible with All Schaevitz® Signal Conditioners

### APPLICATIONS

- ◆ Hydraulic Actuators and Other Pressurized Vessels

### OPTIONS

- ◆ Metric Thread Core

\* Performance and electrical specifications for alternative frequencies will differ from the standard specifications listed below which are based on a 2.5 kHz excitation frequency. Consult factory for further information.

### specifications

Input Voltage	3 V rms (nominal)
Frequency Range	400 Hz to 5 kHz
Operating Temperature	-65°F to 300°F
Range	(-55°C to 150°C)
Null Voltage	<0.5% full scale output
Shock Survival	1,000 g for 11 msec
Vibration Tolerance	20 g up to 2 kHz
Coil Form Material	High density glass-filled polymer or laminated glass epoxy
Housing Material	AISI 304 series stainless steel
Lead Wires	28 AWG, stranded copper, Teflon®-insulated, 12 inches (300 mm) long (nominal)

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## performance and electrical specifications @ 2.5 kHz<sup>1</sup>

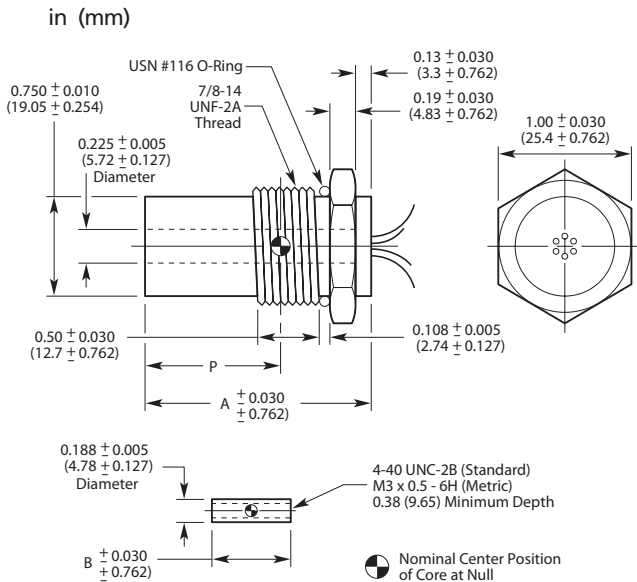
XS-C Series Model Number	Nominal Linear Range		Linearity ±% full range		Sensitivity mV out/V in Per		Impedance Ohms		Phase Shift
	inches	mm	50	100	0.001 in	mm	Pri	Sec	Degrees
249 XS-C	±0.250	±6.35	0.20	0.25	1.7	68	800	940	+5
499 XS-C	±0.500	±12.7	0.20	0.25	1.0	40	938	1130	+2
999 XS-C	±1.000	±25.4	0.20	0.25	0.8	32	770	1400	-1

<sup>1</sup>All calibration is performed at room ambient temperature.

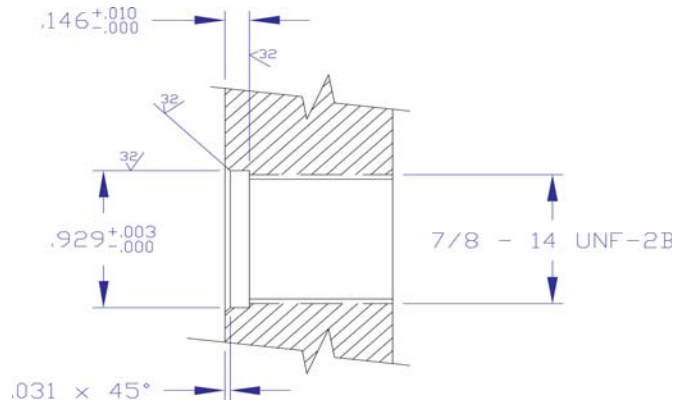
## mechanical specifications

XS-C Series Model Number	Weight		Dimensions							
	Body		Core		A (Body)		B (Core)		P	
	oz	gm	oz	gm	in	mm	in	mm	in	mm
249 XS-C	3.88	110	0.12	3.4	2.93	74.4	1.8	45.7	1.39	35.3
499 XS-C	4.62	131	0.30	8.4	4.63	117.6	3.0	76.2	2.23	56.6
999 XS-C	6.04	171	0.37	10.6	7.88	200.1	3.8	96.5	3.18	80.8

### dimensions



### mating detail



### ordering information

Specify the XS-C Model followed by the option number (if desired).

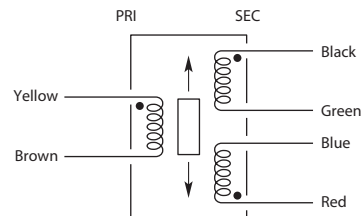
#### Ordering Example:

**Model Number 249 XS-C-006** is an XS-C Series LVDT with a ±0.250" range (249 XS-C), with a Metric thread core (006).

### XS-C Model

- 249 XS-C
- 499 XS-C
- 999 XS-C

### wiring



### options

Number	Description
006	Metric Thread Core