

The **LT0951-X Series** is a compact, short stroke sensor with an Ø9.53 stainless steel case suitable for high temperature applications up to 180°C, where severe vibration, high cycling and fluid contamination are also important considerations.

Available in three different measurement ranges 1mm, 2mm and 4mm, they are specified for precise positional feedback for actuator and solenoid valves in both industrial and automotive systems, where size, performance and reliability are part of the design criteria.

For total system integrity, they are fitted with Raychem fire and chemical resistant, high temperature RW-200-E sleeved type 55 26AWG signal cabling.

Manufactured to quality standards required for high performance measurement systems, the LVDT sensor is designed to convert linear movement from the separate non-contacting shaft into a proportional voltage output.

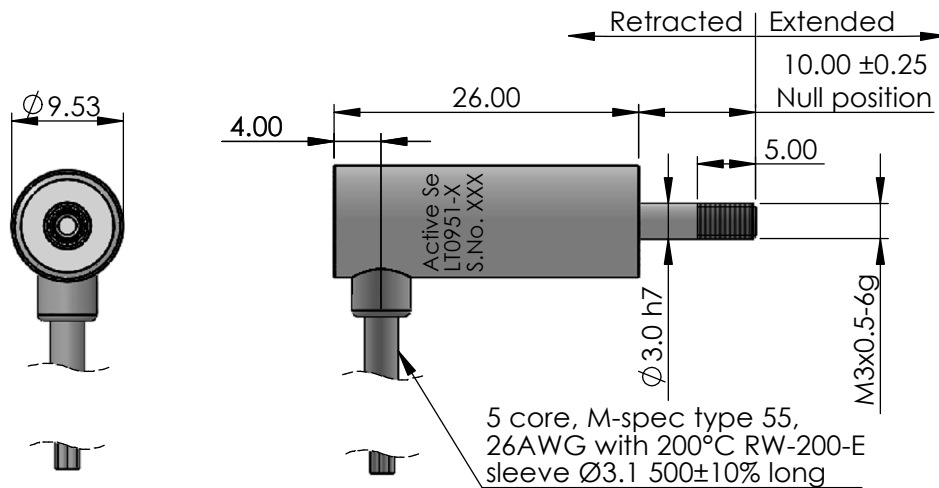
They are designed to be environmentally protected against the ingress of dust and water to IP67.

Key features and benefits

- Measurement ranges, 1mm, 2mm and 4mm
- Compact Ø9.53 stainless steel case
- Maximum operating temperature to 180°C (356°F)
- Sealed to IP67
- Raychem RW-200-E sleeved type 55 26AWG cabling
- Contactless technology
- M3 shaft thread
- Custom designs available on request
- [Electronic signal conditioning available](#)



LT0951-X – Body clamp mounting with side cable exit



Ordering Information:

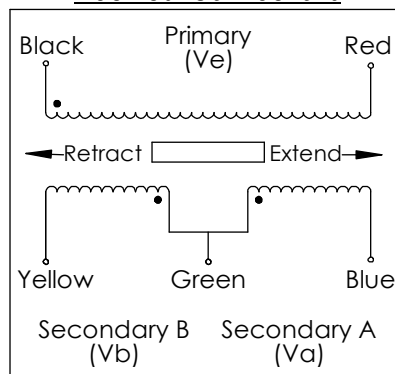
LT0951-X
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 Electrical Stroke in mm

Specification				
Input conditions (Ve)	3.0V ±5% RMS @ 10KHz ±5%			
Electrical stroke	1.0 (±0.50)	2.0 (±1.00)	4.0 (±2.00)	mm
Retracted mechanical stroke	Electrical stroke +1mm each end minimum			mm
Non-linearity (see note 1,2)	<±0.5			%FS
Ratiometric sensitivity (±5%) $\frac{V_a - V_b}{V_a + V_b}$ (see note 1)	0.248			/mm
Summed O/P voltage (±10%)	1.078			V/Ve
Output voltage range (nominal)	1.416 - 1.818	1.216 - 2.018	0.815 - 2.419	VRMS
Input impedance	>120			Ohms
Thermal drift (see note 2,3)	<+0.03 ±0.01	<+0.01 ±0.01	<+0.005 ±0.005	%FS/°C
Insulation resistance (primary-sec, coils-case)	>100 Mohms			at 500VDC
Operating temperature	-55 to +180			°C
Environmental	IP67			
Weight (approx)	20			grams
Materials	Case - Stainless steel 400 series Shaft - Stainless steel 316 Armature - Nickel iron alloy			

Notes:

1. Non-linearity error and sensitivity is calculated from least squares best fit method.
2. Thermal drift is defined as:- Maximum ratiometric change from reading at ambient (+20°C) to ratiometric reading over operating temperature range.
3. Full scale (FS) is calculated by (Ratiometric sensitivity per mm x total electrical stroke)
4. General dimension tolerance is ±0.25mm

Electrical Connections



LVDT AC Output Schematic

