

LT0800

Ultra-slim LVDT Sensor

(Linear Variable Differential Transformer)

The LT0800 sensors contains design features which make it suitable for applications where high temperature, severe vibration, high cycling and fluid contamination are important considerations.

The sensor is used in installations when size, performance and reliability are part of the design criteria and are used extensively in motorsport control systems for throttle and clutch actuation. Other applications include flight control and measurement systems.

The sensor housing is manufactured from stainless steel and is environmentally sealed and fitted with Raychem fire & chemical resistant, high temperature Viton-type55-26 signal cabling for total system reliability.

The LVDT sensor is designed to convert the linear movement of a separate non-contacting core or shaft into a proportional voltage output.

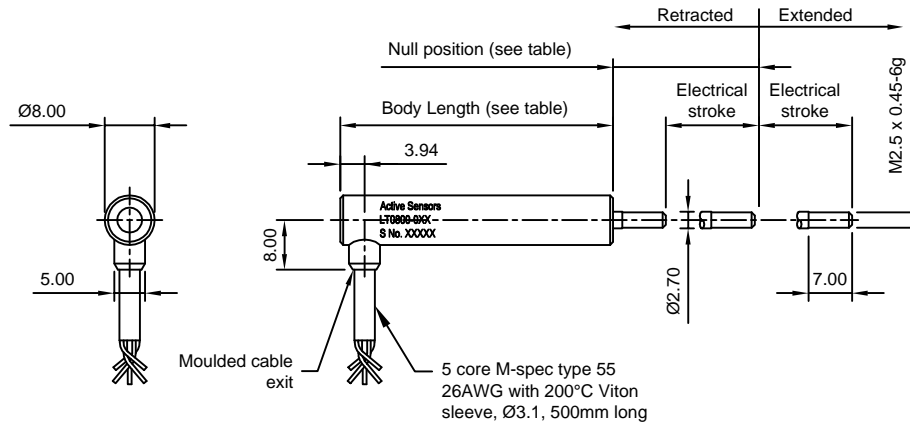
Other models in this range

- LT0600 - micro-slim compact (6mm \varnothing)
- LT0950 - 9.5mm \varnothing choice of mounting
- LT1320 - 12.7mm \varnothing choice of mounting

Also see Active Sensors electronics for LVDT sensors



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Electrical & Mechanical Information

| Input conditions | 3.0V RMS $\pm 5\%$ @ 2.5 KHz $\pm 5\%$ | | | | |
|-----------------------------------|--|--------------------|-------------------|--------------------|------------------|
| Electrical stroke | 10 (± 5.00) | 20 (± 10.00) | 25 (± 12.5) | 40 (± 20.00) | mm |
| Mechanical stroke | ± 6.00 | ± 11.00 | ± 13.50 | ± 21.00 | mm |
| Body Length | 32.0 | 45.0 | 50.0 | 65.0 | mm |
| Null position | 15.0 | 20.0 | 23.0 | 30.0 | mm |
| Summed output voltage $\pm 20\%$ | 0.670 | 0.575 | 0.635 | 0.850 | V/Vin |
| Ratiometric sensitivity $\pm 5\%$ | 0.0560 | 0.0535 | 0.0460 | 0.0300 | /mm |
| Non - linearity | $< \pm 0.5$ | | | | % |
| Input impedance | > 150 | | | | Ohms |
| Operating temperature | $- 55^\circ$ to $+ 200^\circ$ | | | | $^\circ\text{C}$ |
| Environmental | Sealed | | | | |
| Case material | Stainless Steel 416 | | | | |
| Shaft material | Stainless Steel 316 | | | | |

