



CLS0950 Ultra-slim range

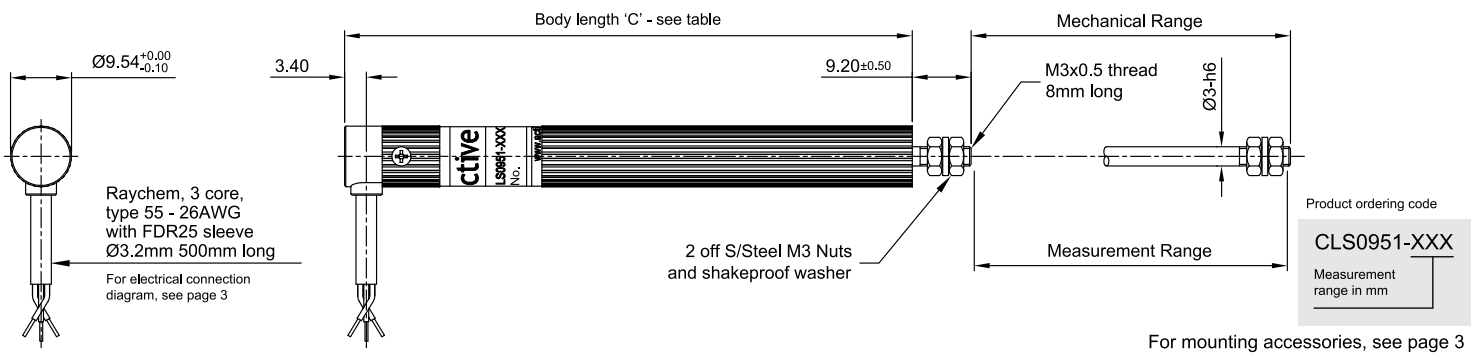


These high performance ultra slim linear potentiometers are designed for the most demanding control and measurement applications. They are constructed from aluminum alloy and stainless steel for high strength and durability, yet are lightweight in design, making them ideal for industrial, automotive and motorsport applications.

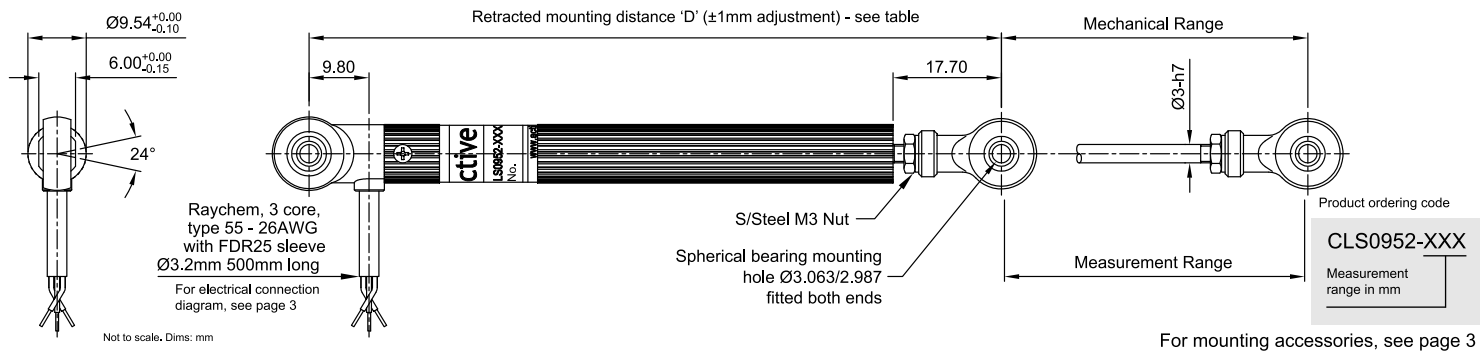
- Measurement Range: 10mm to 150mm (6")
- Ultra slim compact 9.54mm body Ø
- 3.0mm dia. operating shaft
- Sealed as standard
- Raychem cabling
- Choice of mounting
- Very long operational life
- Models available from stock

Model dimensions and mounting

CLS0951 - body clamp mounting

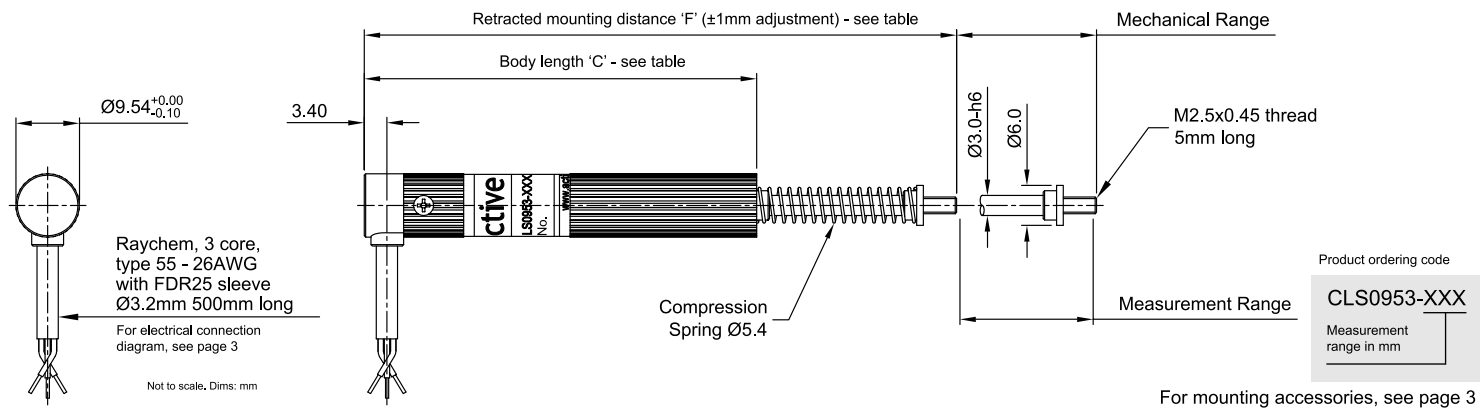


CLS0952 - rod-end mounting

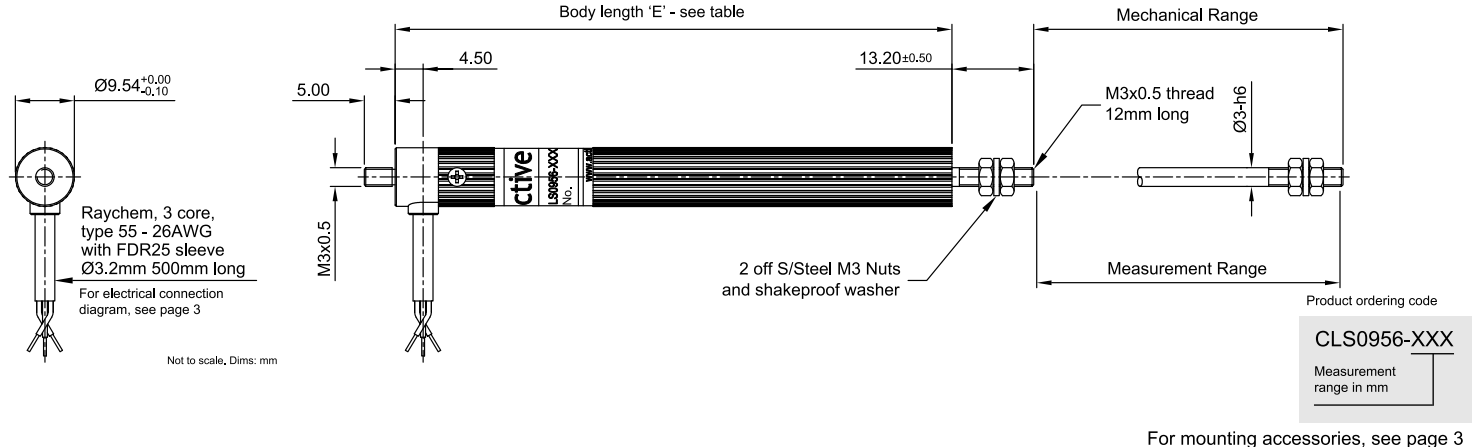


CLS0953 - sprung loaded shaft

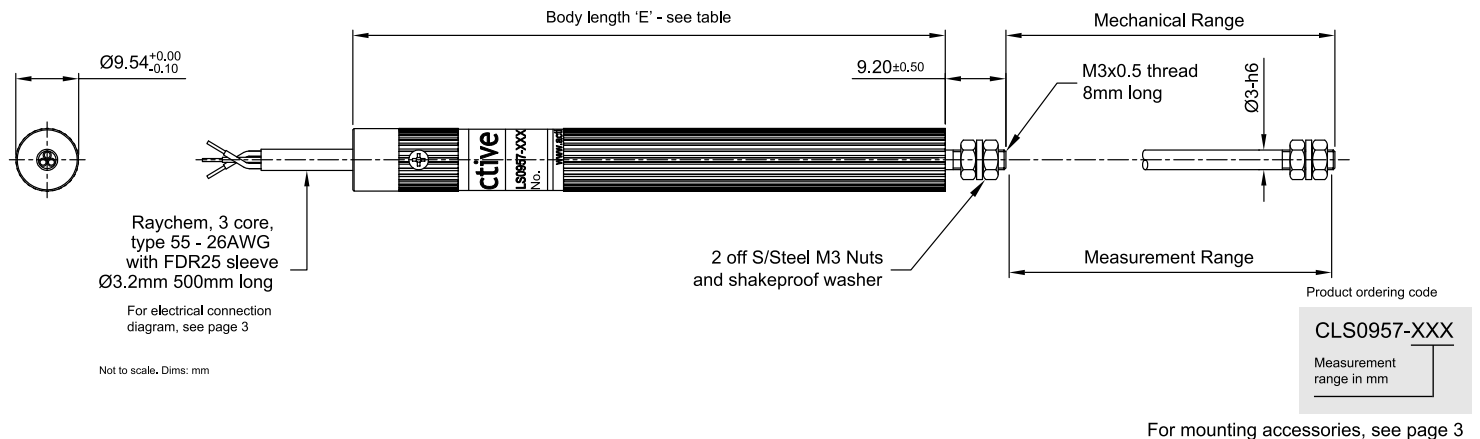
Available in measurement ranges 10, 20, 30, 40 & 50mm only



CLS0956 - M3 threaded mounting



CLS0957 - body clamp/rear cable exit

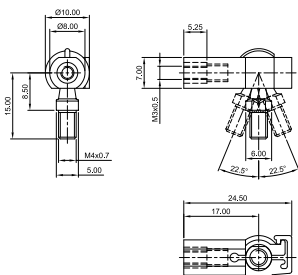


Electrical & mechanical information for CLS0950 range

| | | | | | | | | | | | |
|--|--|--------|--------|--------|--------|----------------|--------|---------|---------|-------|------------------|
| Measurement range ($\pm 0.5\text{mm}$) | 10 | 20 | 30 | 40 | 50 | 75 | 100 | 125 | 150 | mm | |
| Retracted mounting distance (D) | 78 | 83 | 93 | 103 | 113 | 138 | 163 | 188 | 213 | mm | |
| Retracted mounting distance (F) | 81 | 89 | 102 | 115 | 128 | - | - | - | - | mm | |
| Body length (C) | 54 | 59 | 69 | 79 | 89 | 114 | 139 | 164 | 189 | mm | |
| Body length (E) | 55 | 60 | 70 | 80 | 90 | 115 | 140 | 165 | 190 | mm | |
| Resistance (Typical) | 0.4 | 0.8 | 1.2 | 1.6 | 2 | 3 | 4 | 5 | 6 | kohms | |
| Non-linearity | $< \pm 0.25$ | | | | | $< \pm 0.15$ | | | | | % |
| Applied voltage | < 15 | < 22 | < 30 | < 37 | < 45 | < 65 | < 90 | < 112 | < 135 | Volts | |
| Wiper load | > 500 | | | | | | | | | | kohms |
| Mechanical range | Measurement range +1 | | | | | | | | | | mm |
| Shaft velocity | < 10 | | | | | | | | | | m/sec |
| Insulation resistance (at 500V dc.) | > 100 | | | | | | | | | | Mohms |
| Operating temp. range | -30° to $+125^\circ$ | | | | | | | | | | $^\circ\text{C}$ |
| Sealing | CLS0951, 52, 56, 67 - IP66 | | | | | CLS0953 - IP50 | | | | | |
| Shaft operating force | 200 (typical) | | | | | | | | | | grams |
| Weight (approx.) | 18.9 | 20.5 | 22.1 | 23.7 | 25.5 | 29.5 | 33.5 | 37.5 | 41.5 | grams | |
| Materials | Case - Aluminium 6063 - Sulphuric acid anodised Shaft - Stainless steel - 303 series Rod end bearing - Aluminium 6262 housing & BS970 230M07, electroless nickel plate | | | | | | | | | | |

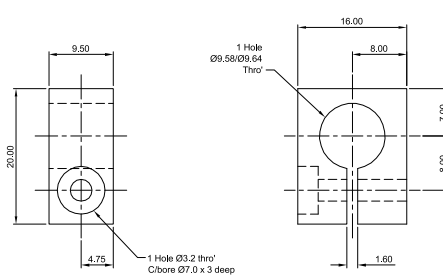
Mounting accessories

Quick release ball joints. Part no: SA0950-4104



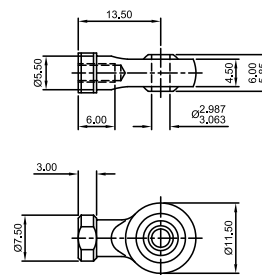
Material:
Body - PA66, Black
Ball Stud - Hardened Carbon
Steel, Zinc plated, clear passivated

Body mounting clamps. Part no: PT0950-0109



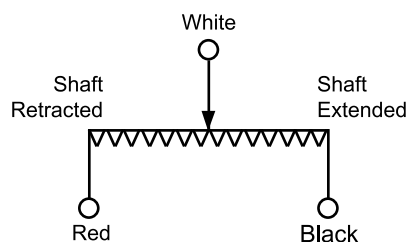
Material:
Aluminium Alloy, anodised black.

3mm rod-end. Part no: PT0952-0104-19



Material:
Housing - Aluminium Alloy, anodised black.
Ball - Steel BS970 230M07, electroless nickel plated
Race - Gr nylon

Electrical connections (all models)



Note 1

Incorrect wiring may cause internal damage to the sensor.

Note 2

Circuit recommendation: Due to the presence of a high contact resistance, these potentiometers should be used as voltage dividers only. Operation with wiper circuits of low impedance will degrade the output signal.

Other CLS linear position sensor models available

CLS1300

- Robust housing
- Up to 350mm (14") stroke
- Choice of mounting
- 13mm body Ø



CLS1900

- Robust housing
- Up to 500mm (20") stroke
- Choice of mounting
- 19mm body Ø



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Additional product information

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Doc. Ref: WS-CLS0950-4

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