

# CLS1322

## Linear Potentiometer

These high performance, high temperature linear potentiometers are designed for the most demanding control and measurement applications.

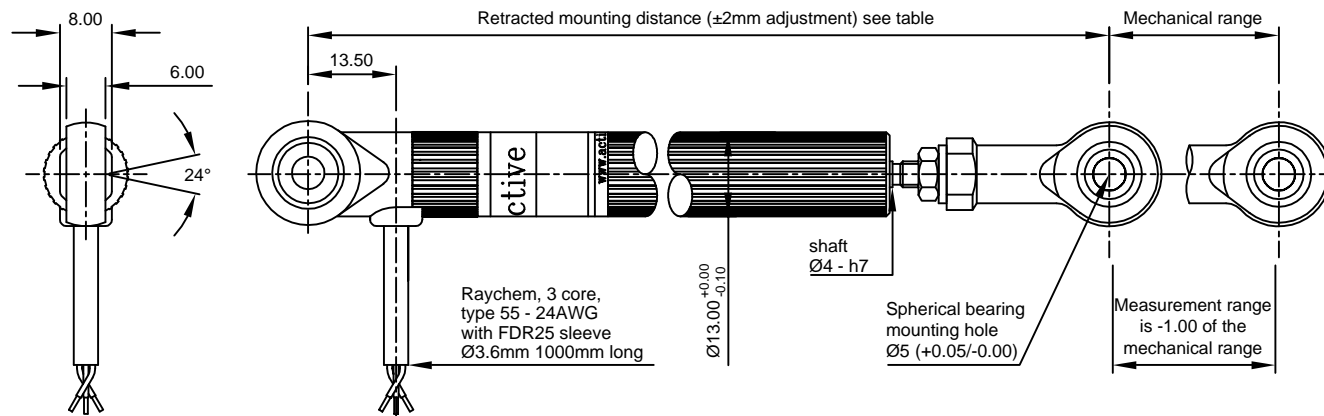
They are constructed from aluminum alloy and stainless steel for high strength and durability, yet are lightweight in design, making them ideal for motor racing, automotive, and general industrial applications.

The sensors are sealed to IP66 as standard and feature fire and chemical resistant high temperature Raychem FDR-type55-24 signal cabling ensuring total system reliability. The physical design of these slim body linear potentiometers enables their survival in the severest of environmental conditions.

### Other models in this range

- CLS0950 - Ultra slim and compact
- CLS1310 - Robust ultra compact
- CLS1321 - Body clamp mounting
- CLS1323 - Spring loaded shaft
- CLS1324 - Extended shaft model (+25mm)
- CLS1325 - Extended shaft model (+50mm)
- CLS1326 - Threaded both ends of shaft
- CLS1328 - Extended shaft model (+41.5mm)
- CLS1920 - Robust medium stroke
- CLS3220 - Industrial long stroke

**Higher temperature models also available**  
(Please contact technical sales)



### Electrical & Mechanical Information

|                                          |                                               |             |             |             |             |             |             |             |             |             |             |             |                  |
|------------------------------------------|-----------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|
| Measurement range ( $\pm 0.5\text{mm}$ ) | 25                                            | 50          | 75          | 100         | 125         | 150         | 175         | 200         | 225         | 250         | 300         | 350         | mm               |
| Retracted mounting distance              | 123                                           | 148         | 173         | 198         | 223         | 248         | 273         | 298         | 323         | 348         | 398         | 448         | mm               |
| Resistance (Typical)                     | 1                                             | 2           | 3           | 4           | 5           | 6           | 7           | 8           | 9           | 10          | 12          | 14          | K ohms           |
| Non-linearity                            | $<\pm 0.25$                                   | $<\pm 0.25$ | $<\pm 0.15$ | $<\pm 0.15$ | $<\pm 0.15$ | $<\pm 0.15$ | $<\pm 0.15$ | $<\pm 0.15$ | $<\pm 0.15$ | $<\pm 0.15$ | $<\pm 0.15$ | $<\pm 0.15$ | %                |
| Applied voltage                          | $<22$                                         | $<45$       | $<65$       | $<90$       | $<110$      | $<130$      | $<130$      | $<130$      | $<130$      | $<130$      | $<130$      | $<130$      | Volts            |
| Wiper load                               | $>500$                                        | $>500$      | $>500$      | $>500$      | $>500$      | $>600$      | $>700$      | $>800$      | $>900$      | $>1000$     | $>1100$     | $>1200$     | K ohms           |
| Mechanical range                         | Measurement Range +1                          |             |             |             |             |             |             |             |             |             |             |             | mm               |
| Shaft velocity                           | $<10$                                         |             |             |             |             |             |             |             |             |             |             |             | m/sec            |
| Insulation resistance (500V dc.)         | $>100$                                        |             |             |             |             |             |             |             |             |             |             |             | M ohms           |
| Operating temp. range                    | $-30^\circ$ to $+125^\circ$                   |             |             |             |             |             |             |             |             |             |             |             | $^\circ\text{C}$ |
| Sealing                                  | IP66                                          |             |             |             |             |             |             |             |             |             |             |             |                  |
| Shaft operating force                    | 200 (typical)                                 |             |             |             |             |             |             |             |             |             |             |             | grams            |
| Weight (approx)                          | 60                                            | 66          | 73          | 78          | 85          | 90          | 96          | 102         | 108         | 114         | 120         | 126         | grams            |
| Case material                            | Aluminium 6063 - Sulphuric acid anodised      |             |             |             |             |             |             |             |             |             |             |             |                  |
| Shaft material                           | Stainless steel - 303 series                  |             |             |             |             |             |             |             |             |             |             |             |                  |
| Rod end bearing material                 | Aluminium 6262 housing & Stainless steel ball |             |             |             |             |             |             |             |             |             |             |             |                  |

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.

### Accessory Part Numbers

Quick release ball joints - JN029-001  
(for shaft only)

See products page for data sheets.

