



CLS1300 slim bodied range

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 industrial, automotive and motor racing measurement applications. The sensors are sealed to IP66 as standard and feature fire and chemical resistant high temperature Raychem FDR-type 55-24 signal cabling ensuring total system reliability. The physical design of these slim body linear potentiometers enables their survival in the severest of environmental conditions.

- Measurement range: 10mm (0.4") to 350mm (14")
- Ultra compact 13mm (1/2") body Ø
- Low noise output signal
- Sealed as standard
- Raychem cabling
- Choice of mounting
- Very long operational life
- Models available from stock

CLS1310 ultra compact series

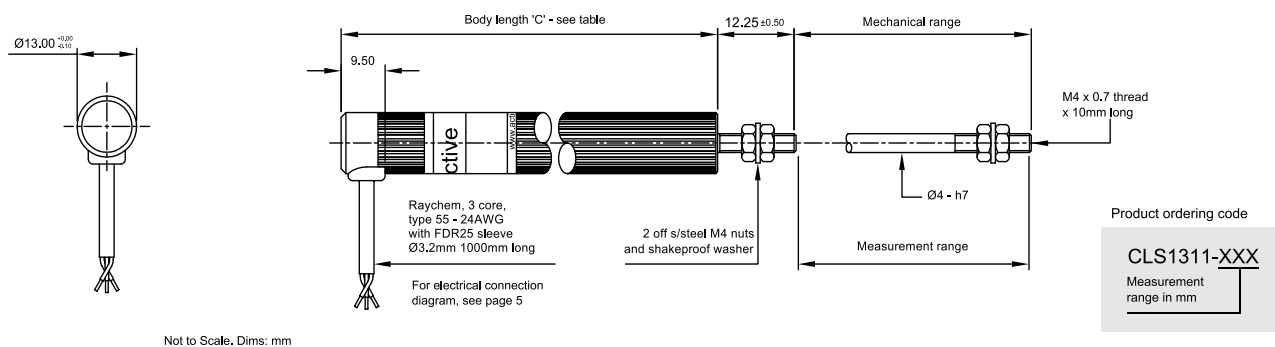
Model features

- Measurement range: 10mm (0.4") to 75mm (3")
- Ultra compact 13mm (1/2") body Ø
- Low noise output signal
- Sealed as standard
- Raychem cabling
- Choice of mounting



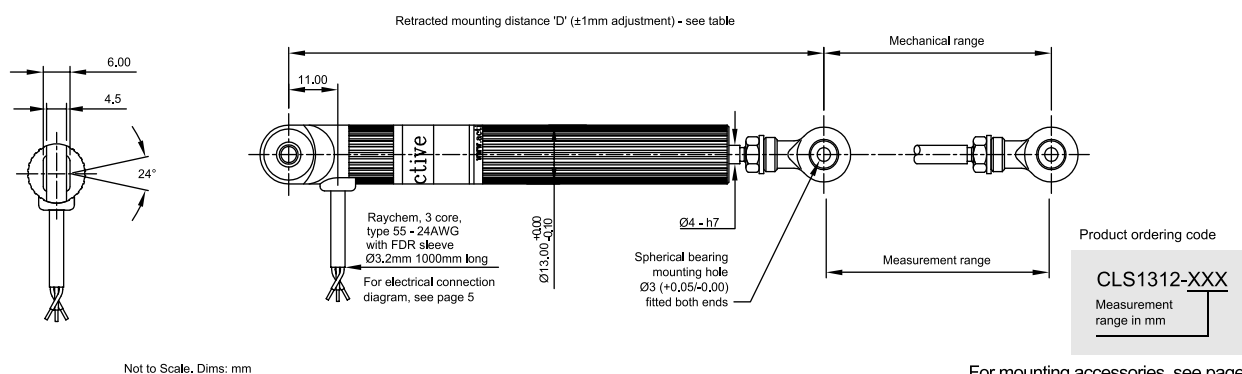
Model dimensions and mounting

CLS1311 - body clamp mounting



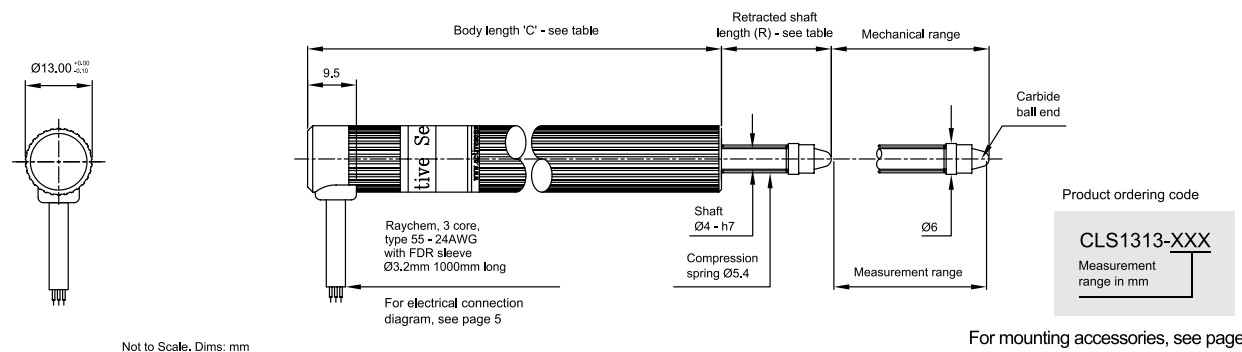
For mounting accessories, see page 4

CLS1312 - rod-end mounting



For mounting accessories, see page 4

CLS1313 - sprung loaded shaft



For mounting accessories, see page 4

Electrical & mechanical information for CLS1310 range

Measurement range (± 0.5 mm)	10	25	30	50	75	mm
Retracted mounting distance (D)	-	95	100	120	145	mm
Retracted shaft length (R)	16.4	21.5	22.5	38.5	-	mm
Body length (C)	53	68	73	93	118	mm
Resistance (Typical)	0.4	1	1.2	2	3	kohms
Non-linearity	$\leq \pm 0.25$					%
Applied voltage	<12	<22	<27	<45	<67	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	CLS1311, 12 - IP66 CLS1313 - IP50					
Shaft operating force	200 (typical)					grams
Shaft operating force (CLS1313)	150 - 350 (typical)					
Weight (approx.)	52	60	61	66	72	grams
Materials	Case - Aluminium 6063 - Sulphuric acid anodised Shaft - Stainless steel - 303 series Rod end bearing - Aluminium 6262 housing & Stainless steel ball					

Note: 10mm measurement range only available with CLS1313

CLS1320 compact series

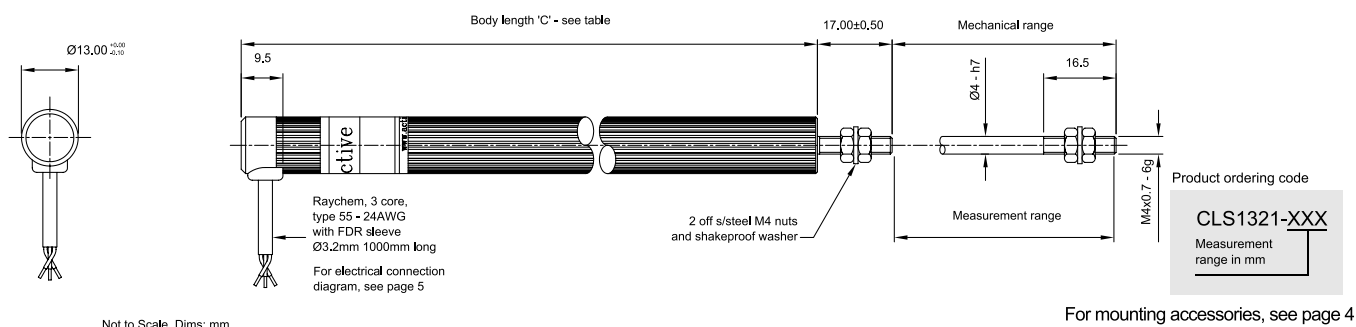
Model features

- Measurement range: 25mm (1") to 350mm (14")
- Slim 13mm (1/2") body Ø
- Compact design
- Sealed as standard
- Raychem cabling
- Choice of mounting

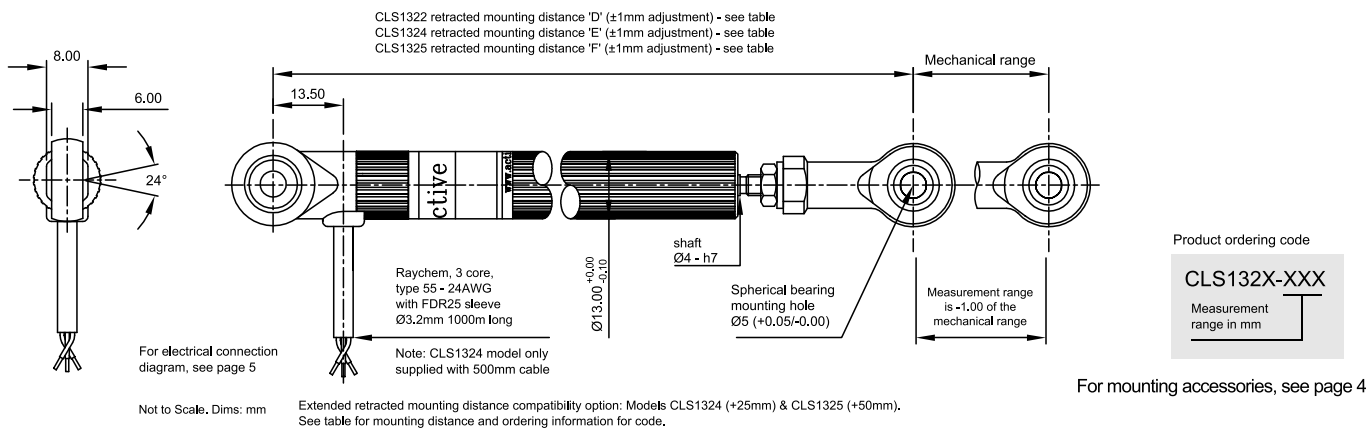


Model dimensions and mounting

CLS1321 - body clamp mounting

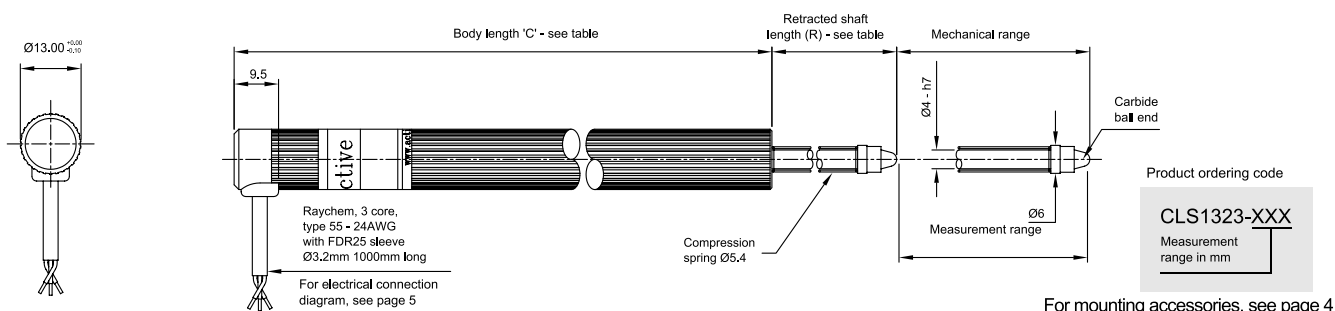


CLS1322 - rod-end mounting

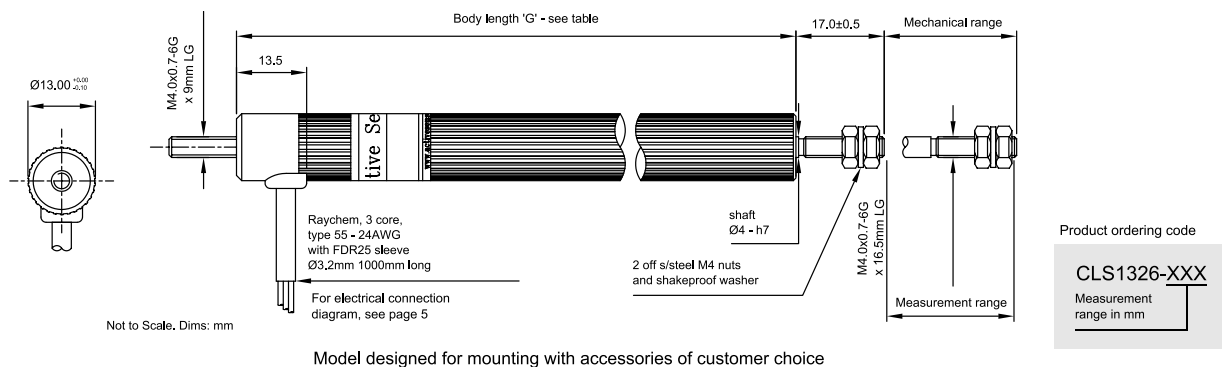


CLS1323 - sprung loaded shaft

Available in measurement ranges 50, 75, 100 & 150mm only



CLS1326 - threaded mounting

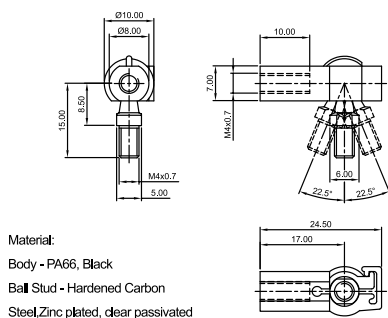


Electrical & mechanical information for CLS1320 range

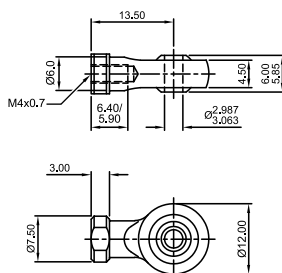
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Mounting accessories

Quick release ball joints. Part no: JN029-003

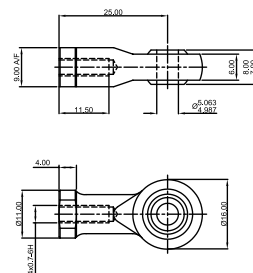


3mm rod-end. Part no: PT1312-0104-19



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

5mm rod-end. Part no: PT1322-0104-19



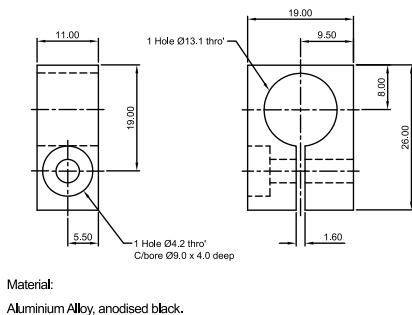
Material:

Housing - Aluminium Alloy, anodised black,

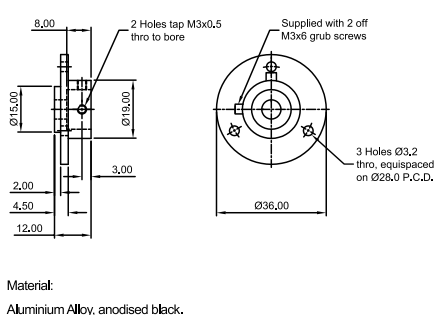
Ball - Steel BS970 230M07, electroless nickel plated

Race - Gr nylon

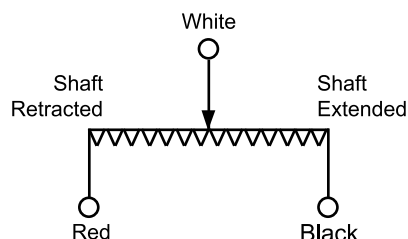
Body mounting clamps. Part no: PT1300-0109



Mounting f ange. Part no: PT1300-0110



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

CLS0950

- Ultra-slim housing
- Up to 150mm (6") stroke
- Choice of mounting
- 9.54mm body Ø



CLS1900

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



CLS3200

- Robust housing
- Up to 1100mm (44") stroke
- Choice of mounting
- 32mm body Ø



Contact details

Europe

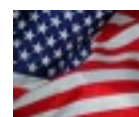
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Additional product information

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