

HEM12 Series

Linear Motion Conductive Plastic Potentiometer



- Shaftless - Magnetic Drag Cursor
- Completely Sealed (IP67)
- 250 bar (400 peak) working pressure
- In-Cylinder Applications
- 50mm to 1000mm Stroke Lengths
- Up to 5 m/s Displacement Speed

Electrical Data (Note 1)	HEM12 -	50	100	150	200	250	300	350	400	450	500	600	750	850	900	950	1000
Electrical Stroke (mm +1/-0)		50	100	150	200	250	300	350	400	450	500	600	750	850	900	950	1000
Resistance Value		5kΩ						10kΩ				20kΩ					
Resistance Tolerance		±20%															
Independent Linearity Tolerance		±0.35%															
Power (@ 40°C)		1W	2W											3W			
Max. Operating Voltage		40V												60V			
Resolution		Essentially infinite															
Temperature Coefficient Resistance		400 ppm/°C															
Temperature Coefficient Voltage Divider		≤ 5 ppm/°C															
Insulation Resistance		> 100M Ω at 500VDC															
Dielectric Strength		< 100 μA at 500V~, 50Hz, 2s, 1 bar															
Maximum Wiper Current		10mA															
Recommended Wiper Current		< 0.1μA (voltage divider circuit)															

Mechanical Data (Note 1)	HEM12 -	50	100	150	200	250	300	350	400	450	500	600	750	850	900	950	1000
Mechanical Stroke (mm ±1)		55	105	155	205	255	305	355	405	455	505	605	755	855	905	955	1005
Cursor Drag Force		≤ 0.5N															
Max. Displacement Speed		≤ 5 m/s															
Life Expectancy		100,000,000 reciprocating motions															
Operating Temperature		-30°C to +100°C															
Storage Temperature		-45°C to +120°C															
Vibration		5 to 2,000Hz. Amax = 0.75mm; amax = 20G															
Shock		50G, 11ms															
Protection Grade		IP67															
Housing Material		Stainless Steel AISI 304															
Mounting		Flange mount / Threaded mount															

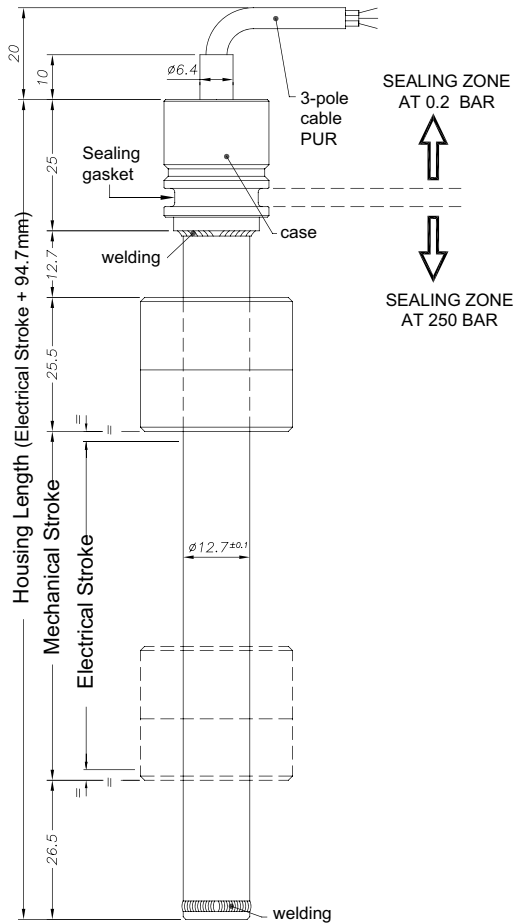
Customers should test and verify device performance in any given application. Specifications are subject to change without notice.

HEM12 Series

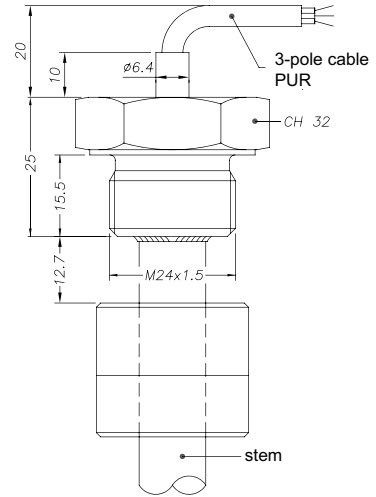
Linear Motion Conductive Plastic Potentiometer

Dimensions (mm)

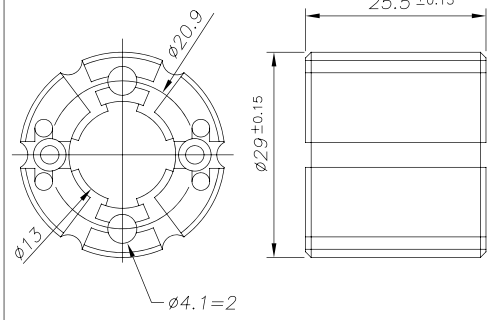
Flange Mount



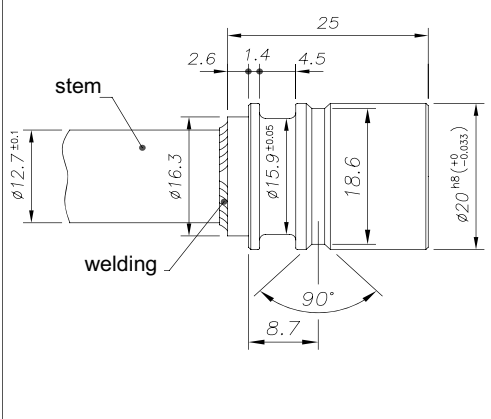
Thread Mount M24 x 1.5 Thread



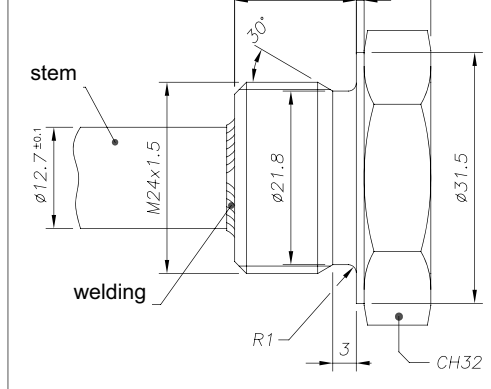
Cursor Details



Flange Mount Details



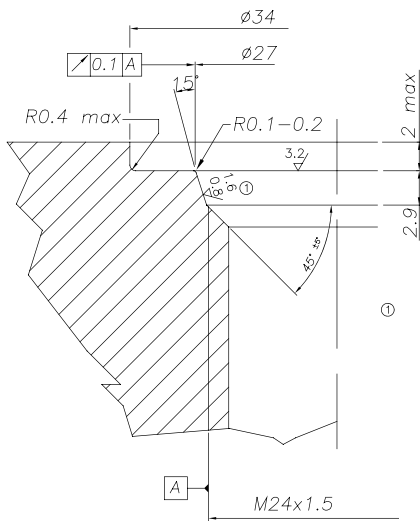
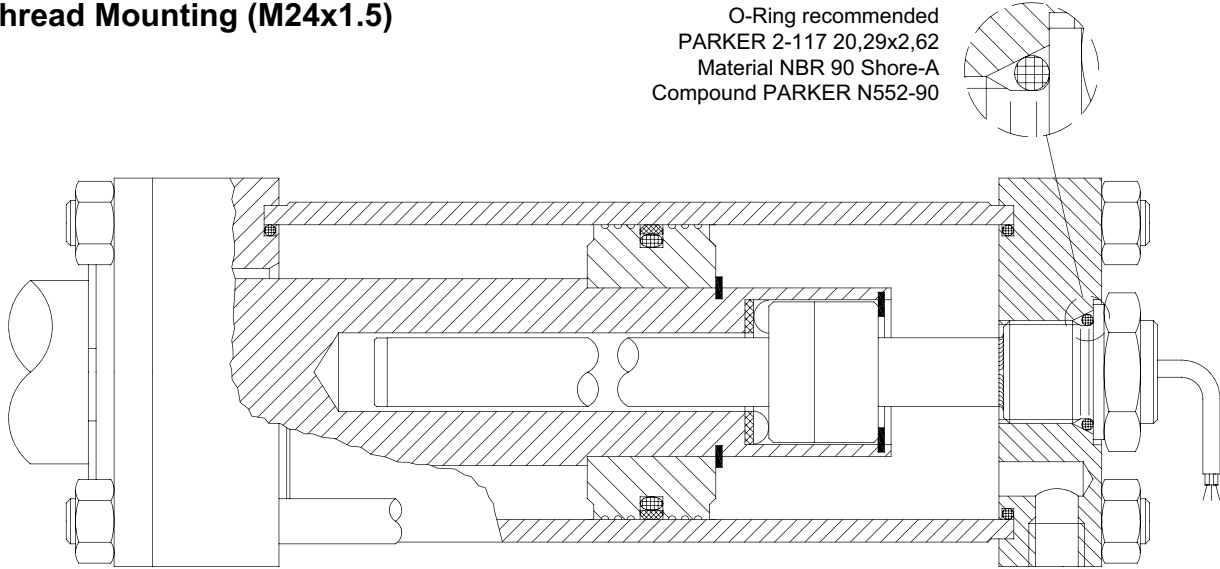
Thread Mount Details



Cylinder Mounting

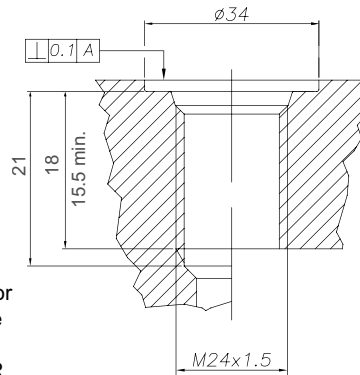
Thread Mounting (M24x1.5)

O-Ring recommended
 PARKER 2-117 20,29x2,62
 Material NBR 90 Shore-A
 Compound PARKER N552-90



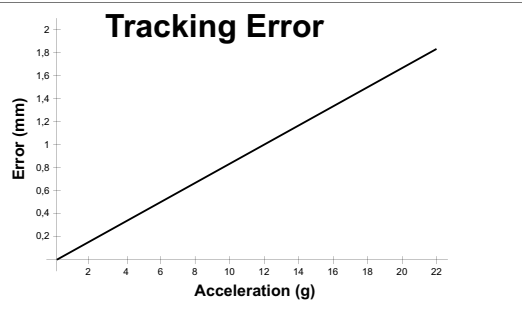
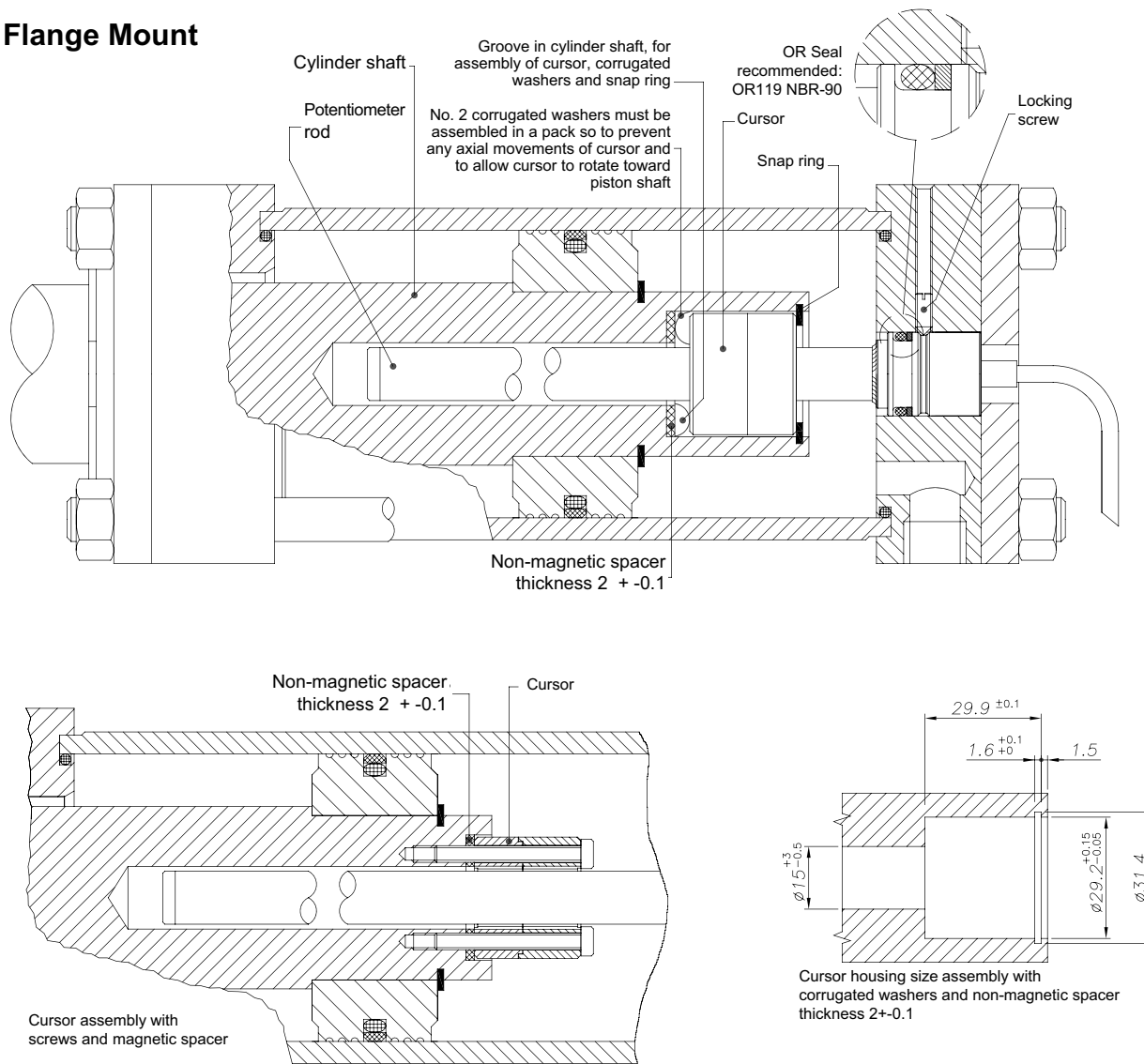
O-ring surface must be free of spiral or longitudinal scratches
 Ro 1,6µm for O-rings with NOT PULSING pressure
 Ro 0,8µm for O-rings with PULSING pressure

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 Material NBR 90 Shore-A
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Cylinder Mounting

Flange Mount



Electrical Schematic

