

### Linear Displacement Transducer

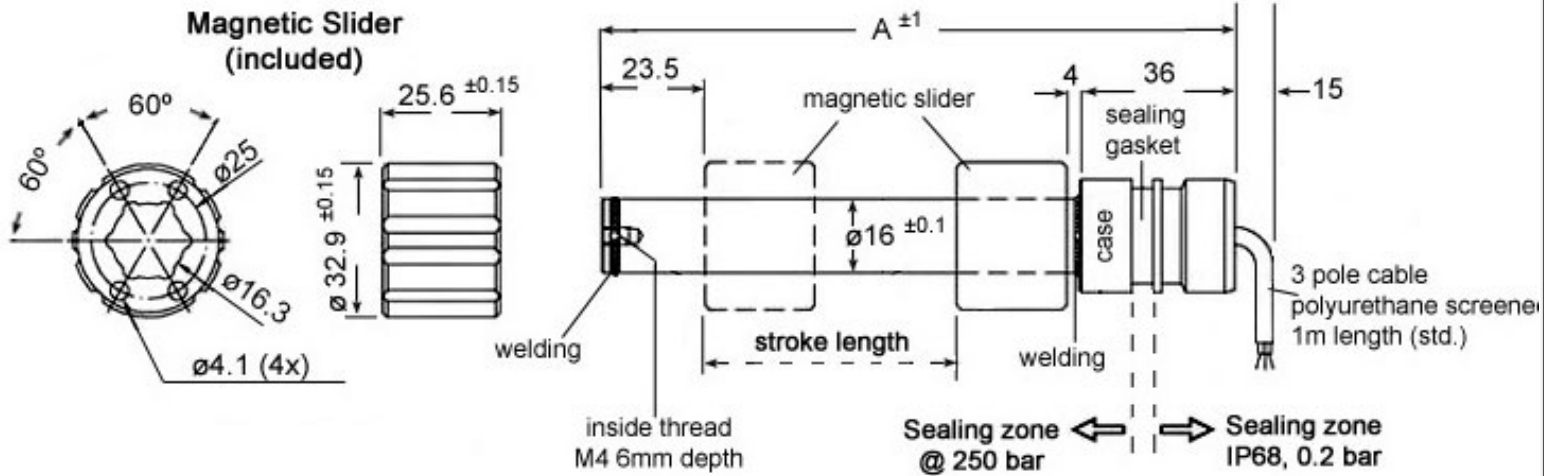


Rectilinear potentiometric displacement transducer without shaft. Completely waterproof (IP68), designed to work with high pressure applications (250bar static, 400bar peak) such as hydraulic cylinders. The HEM series is characterized by an external magnetic actuator coupled to an internal measurement cursor, high precision and a life span up to 100 million cycles.

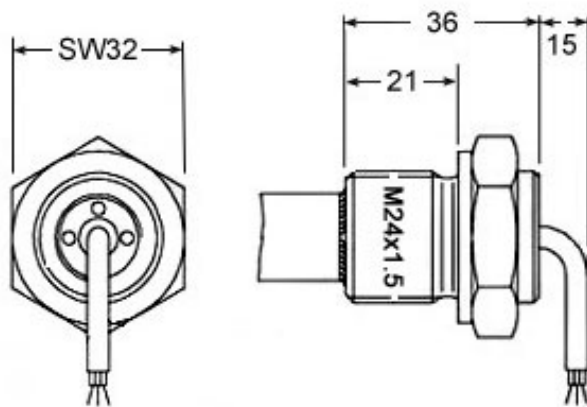
- 50mm to 1000mm stroke lengths
- Linearity tolerance  $\pm 0.05\%$  (>100mm stroke length)
- Completely sealed, IP68

Electrical Specifications	50	100	200	300	400	500	600	700	800	900	1000	
Electrical Stroke Length ( $\pm 1\text{mm}$ )	51	101	201	301	401	501	601	701	801	901	1001	
Resistance Value (Kohm)	5			10			20					
Resistance Tolerance (%)	$\pm 20$											
Linearity Tolerance (%)	$\pm 0.1$			$\pm 0.05$								
Resolution	infinite											
Max. Power @ 40°C (W)	1	2	3									
Temperature Coefficient	400 ppm/°K (<1.5ppm/°C actual effect on the output voltage)											
Electrical Isolation (Mohm)	>100 @ 500 VDC											
Dielectric Strength	<500 VAC (50 Hz)											
Maximum Wiper Current	10 mA											
Recommended Wiper Current	<0.1 $\mu\text{A}$											
Mechanical Specifications	50	100	200	300	400	500	600	700	800	900	1000	
Mechanical Stroke Length (mm)	55	105	205	305	405	505	605	705	805	905	1005	
Housing Length (A dim.) (mm)	144	194	294	394	494	594	694	794	894	994	1094	
Displacement Speed (m/s)	5											
Max. Acceleration (m/s <sup>2</sup> )	10											
Hysteresis	0.25mm (max.)											
Repeatability	0.08mm (max.)											
Typical Life Span	>25 x 10 <sup>6</sup> meters or >100 x 10 <sup>6</sup> cycles, whichever is less											
Max. Operating Torque (N)	<0.5											
Environmental Specifications												
Operating Temperature	-30 to +100°C											
Storage Temperature	-50 to +120°C											
Protection Grade	IP68											

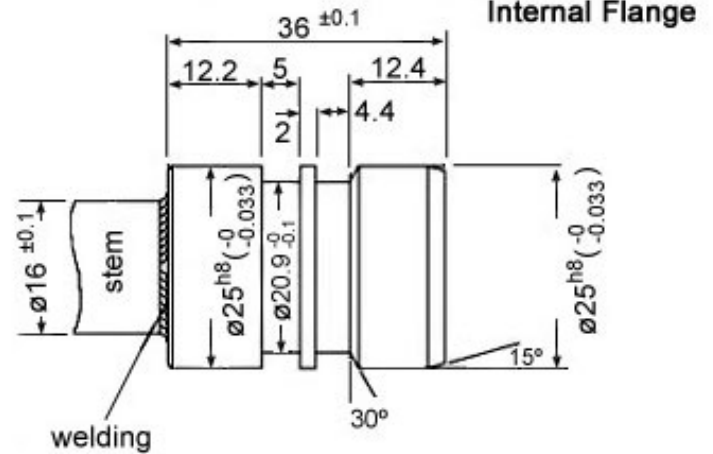
**Dimensions (mm)**



**External Flange**



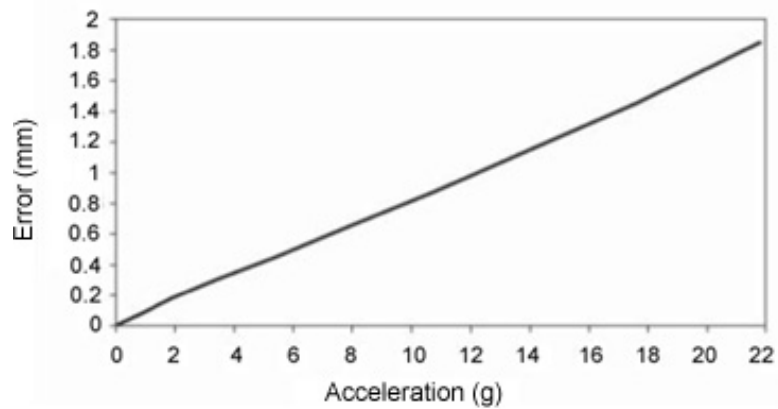
**Internal Flange**



**Options**

- Longer cable lengths (1 meter standard)
- Fractional stroke lengths

**Tracking Error**



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