

# **LINEARPOTI**

***Cylindrical displacement transducer with magnetic drag for contactless measurement***



**Series  
LMI & LME**

- ***Cursor type for contactless ring magnet***
- ***Suitable for harsh environment applications (IP68)***
- ***Sensing element separate with case***
- ***Up to 400 Bar for hydraulic cylinder***
- ***Speed displacement 5 m/s***
- ***Linearity 0,05%***
- ***Infinite resolution***
- ***Working temperature -30...+100°C***
- ***Life time > 25x10<sup>6</sup> Meter or 100x10<sup>6</sup> operations***

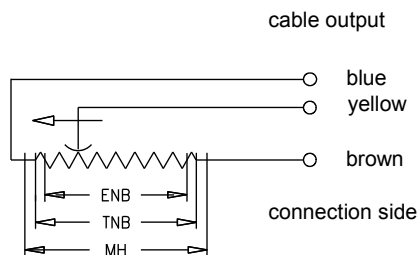
## Technical Data

<b>Range</b>	50 - 1,000 mm	<b>Max. application voltage</b>	see table
<b>Displacement speed</b>	< 5 m/s	<b>Max. cursor current in case of bad performances</b>	< 0,1 µA
<b>Cursor dragging force</b>	<0,5 N	<b>Temp. Coeff. of the resistance</b>	-200 ±200 ppm/°C
<b>max. acceleration</b>	< 10m/s <sup>2</sup> displacement	<b>Actual temperature coefficient of the output voltage</b>	<1,5 ppm/°C
<b>DIN vibration IEC68T2-27</b>	12g, 10...2000 Hz	<b>Electrical isolation</b>	>100MΩ at 500V, 1 bar, 2s
<b>Shock test DIN IEC68T2-27</b>	50g, 11ms. Single shock	<b>Dielectric strength</b>	< 100 µA at 500V~, 50Hz, 2s, 1bar
<b>Linearity</b>	see table	<b>Working temperature</b>	-30...+100°C
<b>Resolution</b>	infinite	<b>Storage temperature</b>	-50...+120°C
<b>Tolerance on resistance</b>	± 20%	<b>Housing material</b>	Aluminium, high grade steel (LMI)
<b>Recommended cursor current</b>	< 1 µA	<b>Mounting</b>	flange/terminal plate
<b>Max. permitted dissipation</b>	<10 mA	<b>Displacement sensitivity (no hysteresis)</b>	0.05 to 0.1 mm
<b>Dissipation at 40°C (0W at 120°C)</b>	see table		
<b>Protection LME 12</b>	IP 67		
<b>Protection LMI 12</b>	IP 68, max.pressure 250 bar, 400 per peak		

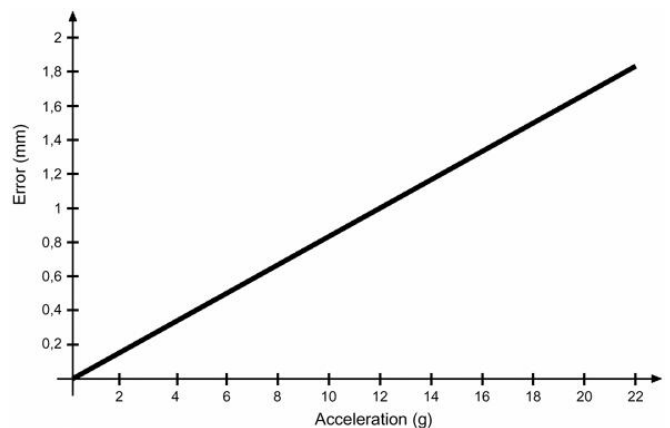
## Electrical and Mechanical Data

Model		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	
Useful electrical stroke	mm	Model																				
Theoretical electrical stroke (C.E.T.)	mm	E.N.W. + 1																				
Resistance (C.E.T.)	kOhm	5					10					20										
Independent linearity (within C.E.U.)	± %	0,1		0,05																		
Dissipation at 40°C (0 W at 120°C)	W	1	2	3																		
Max. application voltage	V	40		60																		
Mechanical stroke (C.M.)	mm	E.N.W. + 5																				
Case length (A) LMI 12	mm	E.N.W. + 94																				
Case length (A) LME 12	mm	E.N.W. +62																				

### Electrical Connections

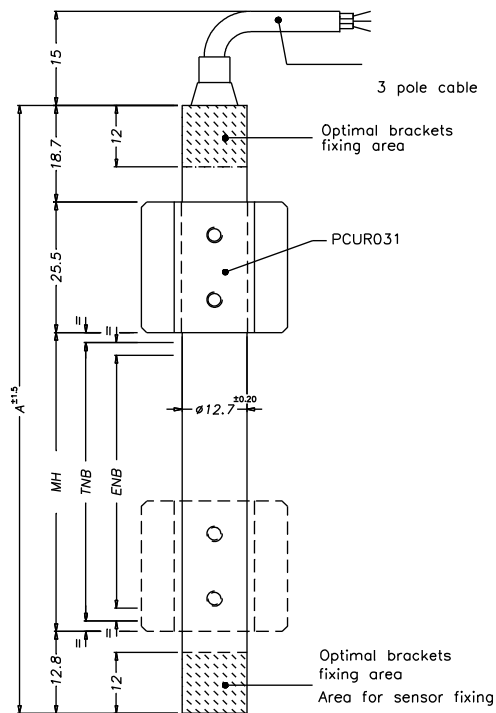


### Tracking Error

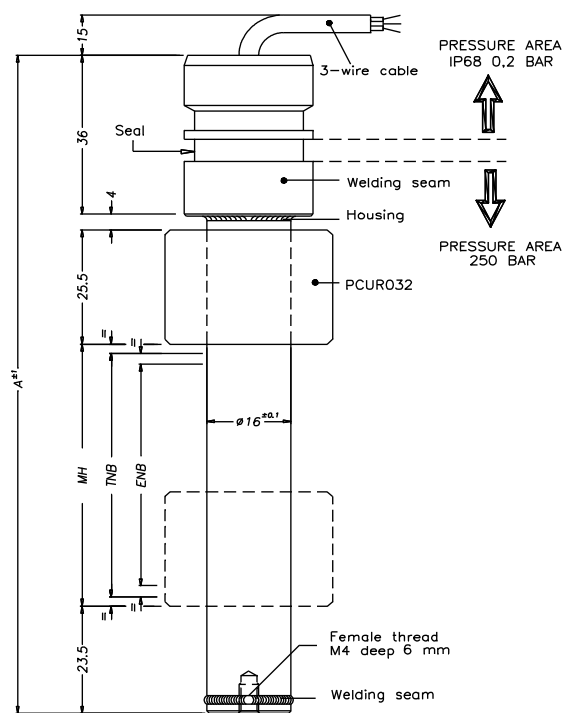


Dimensions and Electrical Data

LME 12



LMI 12

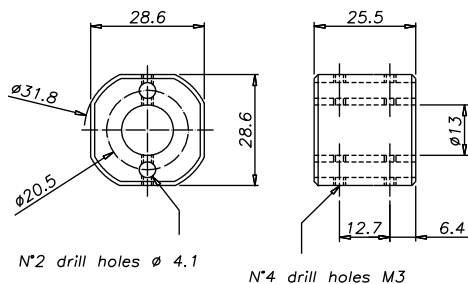


Assembly indication:

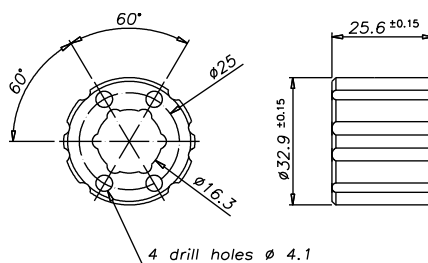
After installation of the sensor and putting on the magnet on the sensor, the unique magnet must be pushed entirely on the

sensor (up to flange / cable connection) to link the transmitter element in the sensor with the magnet.

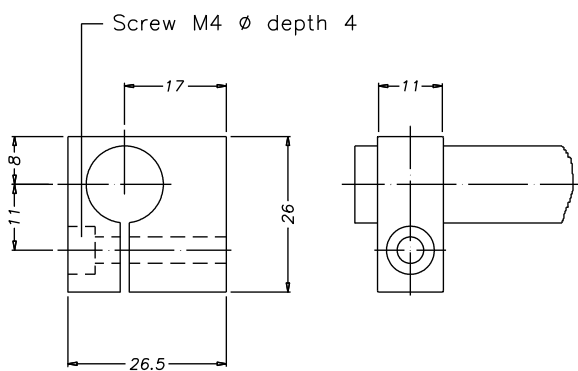
PCUR031 Cursor



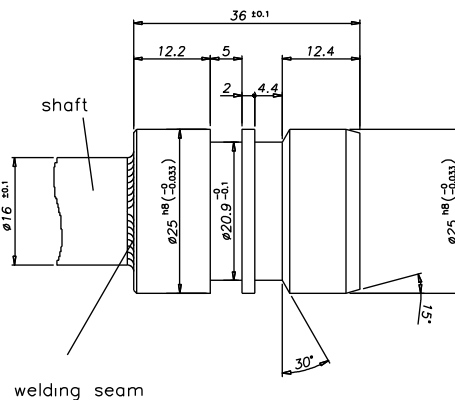
PCUR032 Cursor



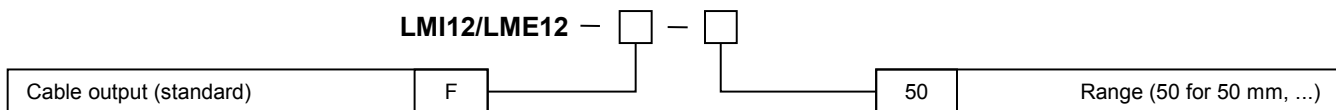
STA001 Brackets



Case dimension



Order Code



These data can be changed without any advance notice

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