POTENTIOMETER POL 790

This analog measuring conductive plastic transducer is very robust. The angle of rotation is 350°, but is individually adjustable.

Customizations to meet specific requirements are available upon request.

Advantages
– Adjustable measuring range: 350°
– Robust aluminium housing
– High resolution, precision and measurement accuracy

Application examples
– Special vehicle construction
– Measuring the steering angle in special-purpose vehicles
– Servo systems



General data	
Sensor technology	Potentiometric
Type of contact	Wiper
Sensor type	Absolute measuring
Curcuit	As voltage divider

Electrical data	
Measuring range	350°, adjustable
Independent linearity	± 2 %
Resolution	Analog
Resistance range	5 kΩ, 10 kΩ
Resistance tolerance	± 20 %
Max. wiper current	5 mA in case of malfunction
Wiper load	> 100x Rn
Insulation resistance	10 GΩ at 500 VDC
Dielectric strength	1,000 VAC
Supply voltage	5 VDC typ., 3 to 30 VDC possible
Output signal	Analog 0 to 100 % of supply voltage

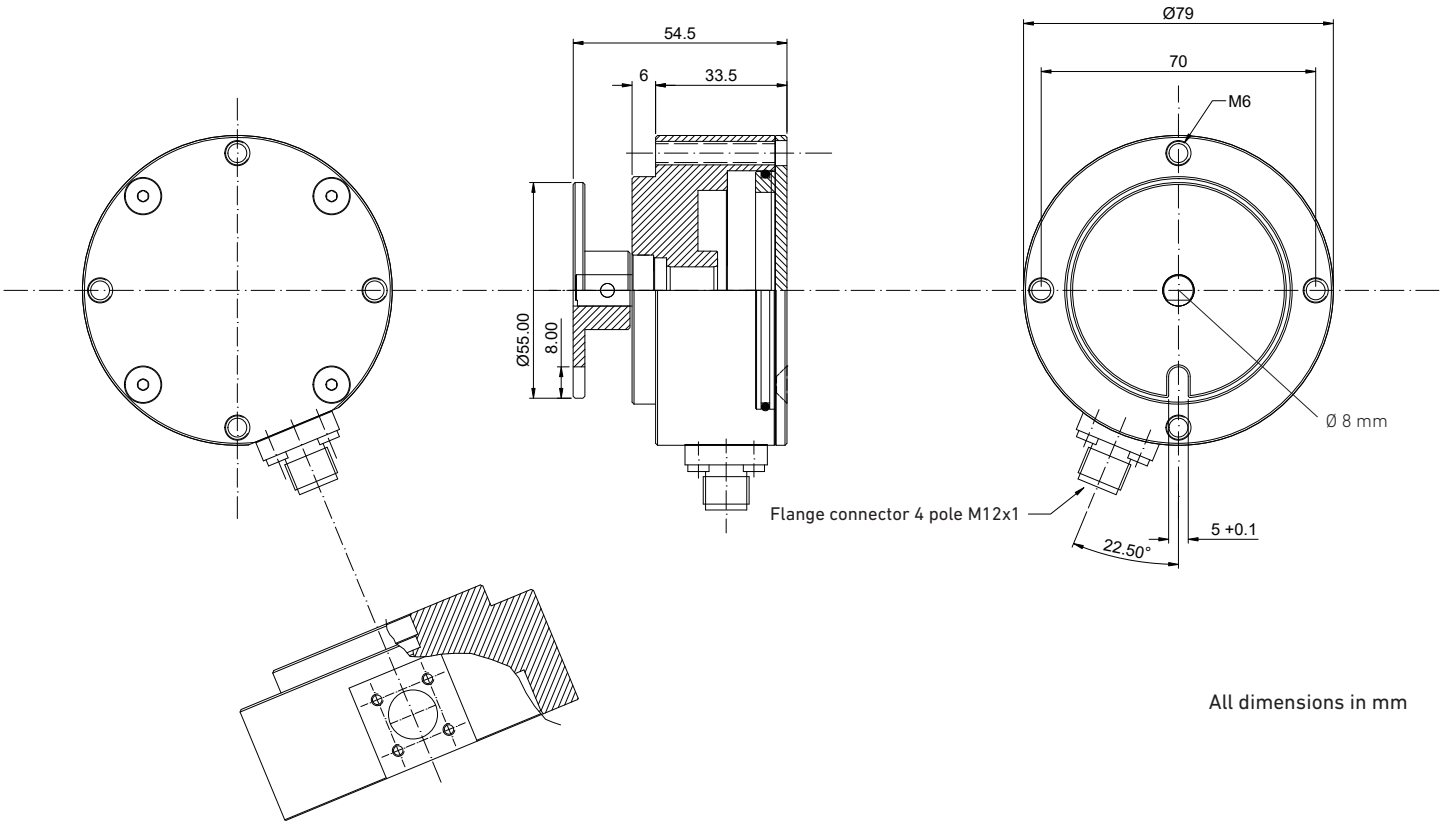
Mechanical data	
Dimensions	See drawings
Shaft diameter	8 mm
Bearing	Plain bearing
Mounting	Screw
Lifetime	10 million cycles

Environmental data	
Operating temperature	-25 °C to +85 °C
Protection class acc. to IEC 60529	IP 67
EMC	Uncritical
ESD	Uncritical

Material	
Housing	Aluminium anodised
Resistance material	Conductive plastic

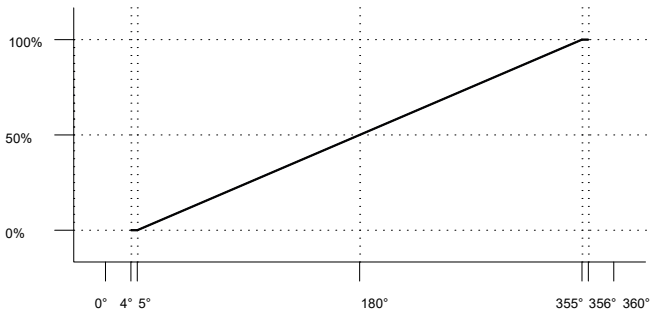
Electrical connection
Connector M12 x 1, 4 pole

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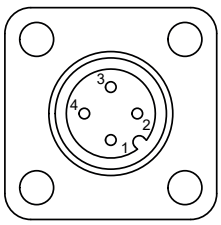


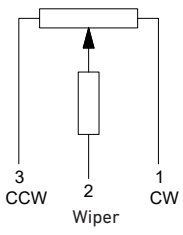
All dimensions in mm

Output signal



Electrical connection





Definition of direction of rotation:
When viewed from the shaft, pin 1 is + and pin 3 is –. Rotating the shaft clockwise results in increasing voltage at pin 2.

Sample order

Article No.	Product name	Measuring range	Electrical connection
E050200416	POL 790	350°	Connector M12 x 1

Metallux cannot picture the customer's operating and application conditions and the customer's existing environmental influences.
We therefore recommend that you carry out your own investigations into the planned use of the products under the actual operating conditions.

We continuously improve our products and also update our data sheets regularly. In this respect, there may be changes in the specification.
These changes will apply to orders received by us from the time of the update, unless otherwise agreed.

Our products comply with Directive 2011/65/EU (RoHS) including Directive 2015/863/EU and Regulation (EC) No. 1907/2006 (REACH).