Single-Turn Continuous Rotation Analog Displacement Sensor

FEATURES

- Conductive plastic potentiometer technology, infinite resolution
- Anodized light alloy housing
- Soldering terminal outputs
- Precious metal contacts
- Stainless steel shaft
- Applicable standards: NFC 93255, MIL R 39023
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

DESIGN SUPPORT TOOLS

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3D Models Available

QUICK REFERENCE DATA	
Sensor type	ROTATIONAL, conductive plastic
Output type	Output by turrets
Market appliance	Industrial
Dimensions	36.5 mm

ELECTRICAL SPECIFICATIONS	
PARAMETER	
Theoretical electrical travel	350° ± 3°
Independent linearity standard	± 1 %
Independent linearity optional	± 0.25 %, ± 0.5 %
Total resistance range (R_n)	4.7 kΩ or 10 kΩ
Tolerance on R_n	± 20 %
Output smoothness	≤ 0.1 %
Power rating at 70 °C	2 W (see “Power Rating Chart”)
Temperature coefficient	-300 ± 300 ppm/°C
Wiper current	≤ 1 mA
Recommended load impedance	≥ 100 R_n for linearity = 1 % ≥ 1000 R_n for linearity ≤ 0.5 %
Insulation resistance	≥ 1 GΩ at 500 V_{DC}
Dielectric strength	750 V_{RMS}, 50 Hz, 1 min

MECHANICAL SPECIFICATIONS	
PARAMETER	
Mechanical rotation	360° continuous
Moment of inertia	≤ 2 g cm^2
Mounting standard	Servo or screw-on front panel
Mounting optional (addition of a kit)	Bushing (see “Dimensions”)
Running and starting torque	≤ 0.25 N cm
Panel tightening torque	≤ 250 N cm (bushing version)
Protection class	IP 50
Weight	40 g

PERFORMANCE	
PARAMETER	
Operating temperature range	-55 °C to +125 °C
Life	20M cycles
Rotation speed (max.)	600 rpm

Note

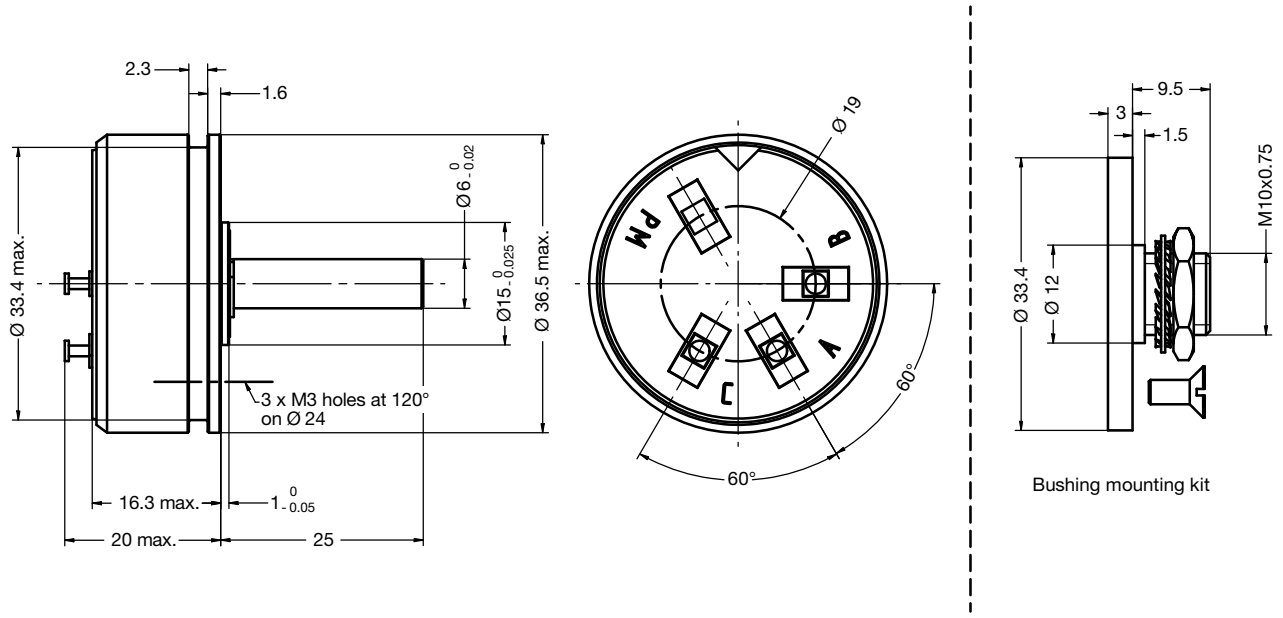
- Nothing stated herein shall be construed as a guarantee of quality or durability

For technical questions, contact: mcbprecisionpot@vishay.com

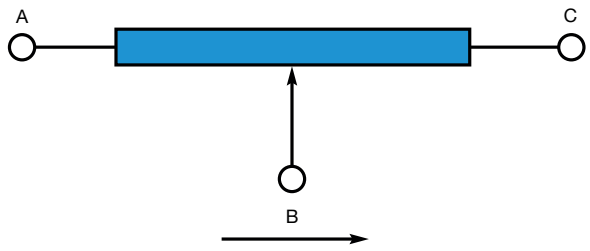
SAP PART NUMBERING GUIDELINES

MODEL	MOUNTING	TYPE	VALUE	LINEARITY	THEORETICAL ELECTRICAL TRAVEL	PACKAGING
PP36	S = servo	R = ball bearing	472 = 4.7K 103 = 10K	A = 1 %	350	B = box

DIMENSIONS in millimeters

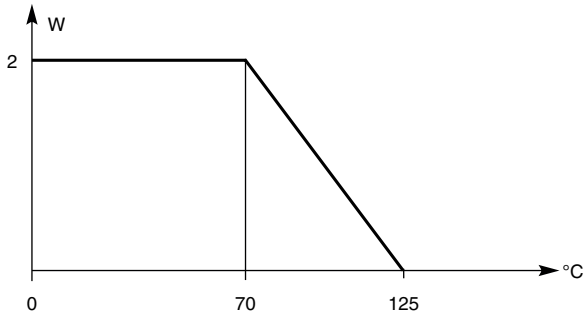


ELECTRICAL DIAGRAM



Clockwise direction viewed from control shaft side

POWER RATING CHART



OPTIONS (on request)

- Bushing mounting
- Other tolerances on R_n
- Other linearities
- Other theoretical electrical travel
- Center tap
- Sleeve bearing (S) in place of ball bearing (R)

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