Single Turn Continuous Rotation Potentiometer or with Stop-Ends Conductive Plastic Track



FEATURES

- Infinite resolution
- Precious metal contacts
- Housing: high temperature thermo plastic
- Terminals: soldering pins
- Shaft: stainless steel
- Plain bearing (= sleeve bearing)
- Bush mounting
- Rotation with stop-ends (standard design) or without
- Dust proof
- Applicable standards: NFC 93255, MIL R39023
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

QUICK REFERENCE DATA	
Sensor type	ROTATIONAL, conductive plastic
Output type	Output by turrets
Market appliance	Industrial
Dimensions	27 mm

ELECTRICAL SPECIFICATIONS	
PARAMETER	
Useful electrical travel	310° ± 5°
Independent linearity standard	± 1.0 %
Independent linearity optional	± 0.5 %
Total resistance (R_n)	10 kΩ
Tolerance on R_n	± 20 %
Output smoothness	≤ 0.1 %
Power rating at 40 °C	1 W
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, 50 Hz, 1 min

MECHANICAL SPECIFICATIONS	
PARAMETER	
Mechanical rotation without stop	360° continuous
Mechanical rotation with stop	333° ± 5 ° continuous
Running and starting torque	≤ 1.4 N cm
Stop torque	100 N cm
Bush tightening torque	250 N cm
Moment of inertia	≤ 1 g cm^2
Protection class	IP50
Weight	30 g
Mounting	Bush

PERFORMANCE	
PARAMETER	
Operating temperature range	-55 °C to +105 °C
Life	10M cycles
Rotation speed (max.)	120 rpm

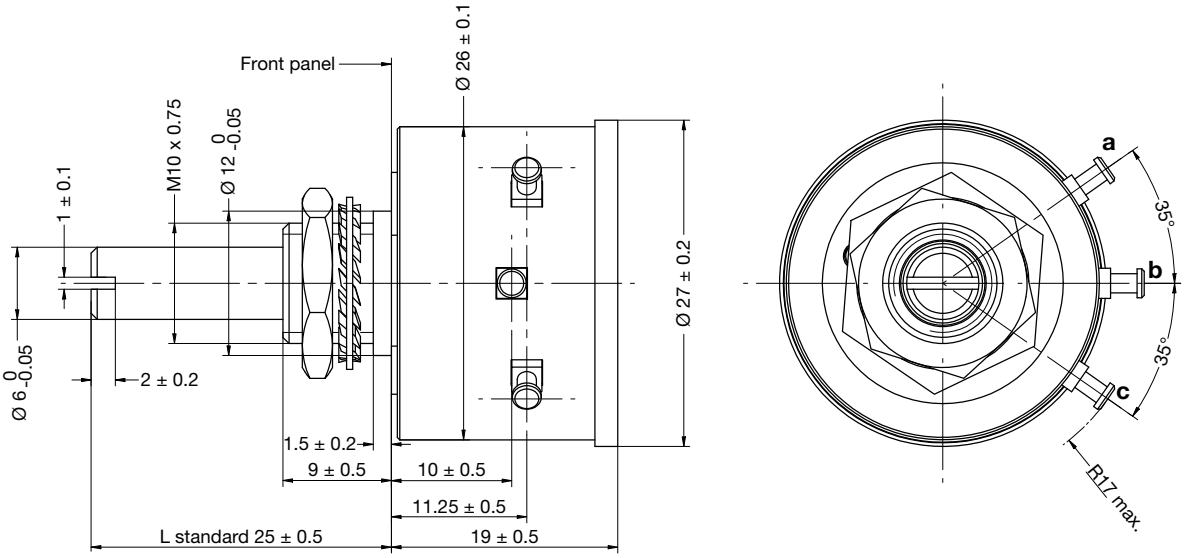
For technical questions, contact: mcbprecisionpot@vishay.com

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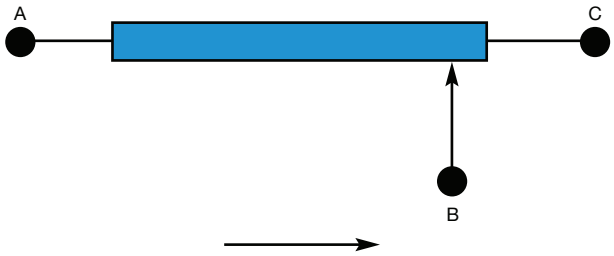
SAP PART NUMBERING GUIDELINES

MODEL	MOUNTING	TYPE	GANG	VALUE	LINEARITY	ANGLE	PACKAGING
PP27	B = bushing	S = sleeve bearing	1	103 = 10K	A = 1 %	310	B = box

DIMENSIONS in millimeters

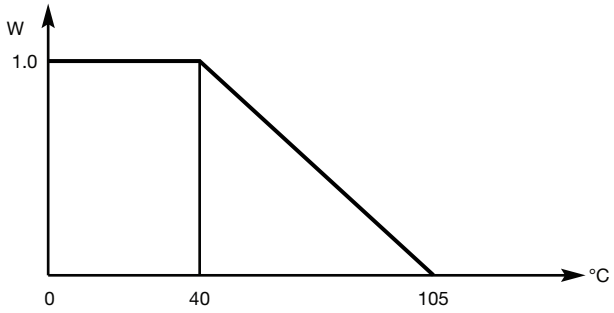


ELECTRICAL DIAGRAM



Clockwise when viewed from shaft end

POWER RATING CHART



OPTIONS (on request)

- Continuous rotation (without stop-ends)
- Through shaft
- Ganging 2 or 3
- Other electrical travels
- Other ohmic value
- Other tolerances on R_n
- Other linearities (0.5 %)
- Middle tap

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