

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

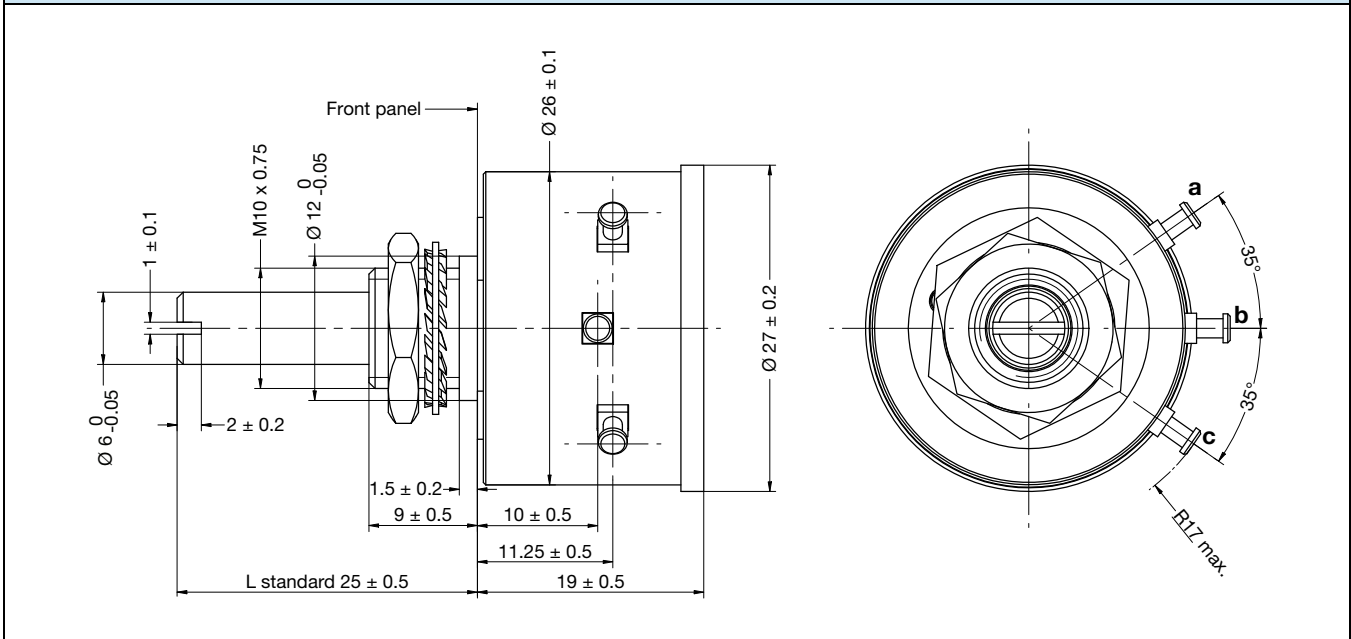
PERFORMANCE

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

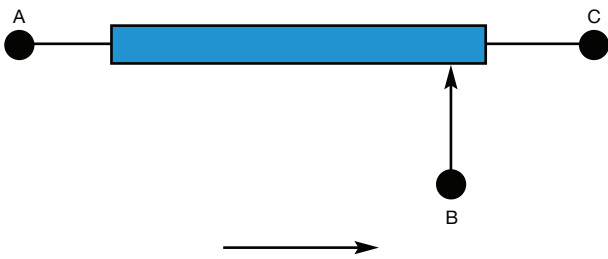
SAP PART NUMBERING GUIDELINES

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

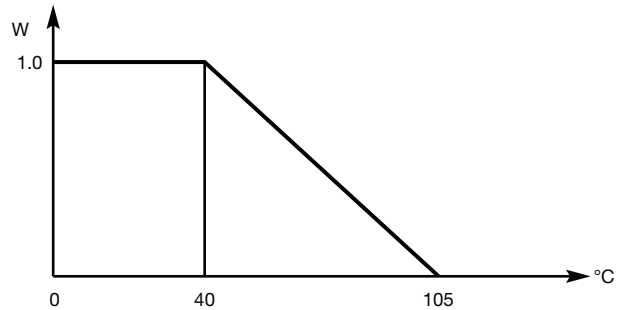


ELECTRICAL DIAGRAM



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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