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Vishay MCB

5-Turn Analog Displacement Sensor P22 Redundant



QUICK REFERENCE DATA						
Sensor type	ROTATIONAL, multi turns conductive plastic					
Output type	Output by turrets, wires, or connector					
Market appliance	Transportation					
Dimensions	51.1 mm x 30 mm					

FEATURES



- Dual conductive plastic potentiometer technology
- Infinite resolution
- Molded metal housing
- · Stainless steel shaft
- Precious metal contacts
- Soldering terminal contacts
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

ELECTRICAL SPECIFICATIONS					
PARAMETER					
Theoretical electrical travel	1700° ± 15°				
Independent linearity	± 1 %				
Inter-linearity	± 2.5 %				
Total resistance (R _n)	2 x 2.2 kΩ				
Tolerance on R _n	± 20 %				
Output smoothness	≤ 0.1 %				
Power rating at 70 °C	1 W				
Temperature coefficient	-300 ± 300 ppm/°C				
Wiper current	≤1 mA				
Recommended load impedance	≥100 R _n				
Insulation resistance	≥ 1 GΩ at 500 V _{DC}				
Dielectric strength	750 V _{RMS} , 50 Hz, 1 min				

MECHANICAL SPECIFICATIONS						
PARAMETER						
Mechanical rotation	Continuous					
Running and starting torque	≤ 2 N cm					
Panel tightening torque	≤ 250 N cm					
Weight	100 g					
Protection class	IP 50 to IP 66 (front face)					
Backlash	< 14°					

PERFORMANCE					
PARAMETER					
Operating temperature range	-30 °C to +70 °C				
Life	100M cycles				
Rotation speed (max.)	150 rpm				

Note

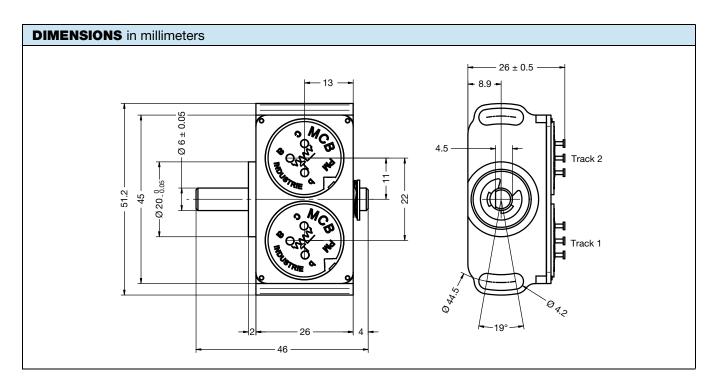
· Nothing stated herein shall be construed as a guarantee of quality or durability



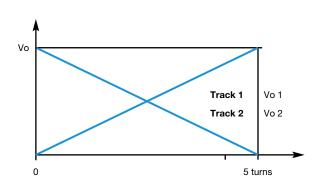
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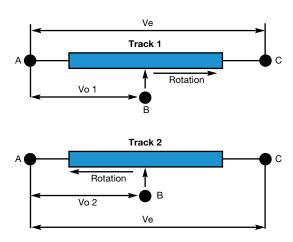
SAP PART NUMBERING GUIDELINES									
MODEL	FUNCTION	MOUNTING	TYPE	VALUE	LINEARITY	ANGLE	PACKAGING		
P22	R = redundant	S = servo	R = ball bearing	222 = 2K2	A = 1 %	1700 # 5 turns	B = box		



ELECTRICAL DIAGRAM



Clockwise rotation viewed from shaft side with identical wiring on both tracks



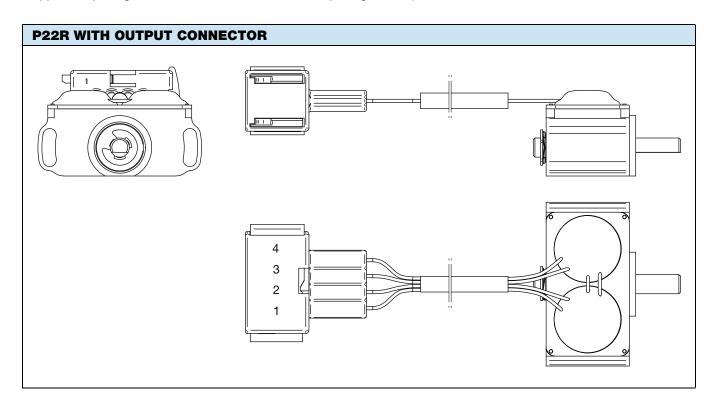


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OPTIONS (on request)

- Other total resistance (R_n)
- Other versions: 2.5 turns and 8 turns
- Option wire outputs or connector: in such case, between wires and turrets of sensor P22R, to protect against moisture and risk of short circuit, a potting is added on turrets to provide insulating function (to not confuse with mechanical stress / efforts applied on potting, to avoid such mechanical stress on potting / turrets)





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