Analog Displacement Sensors for Transportation Applications

FEATURES

- Conductive plastic potentiometer technology
- Use in engine compartment
- Travel: 240°
- Sealed sheath outputs
- Lever drive with return spring
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

QUICK REFERENCE DATA	
Sensor type	ROTATIONAL, conductive plastic
Output type	Output by cable
Market appliance	Transportation
Dimensions	41 mm x 34 mm x 23.37 mm

ELECTRICAL SPECIFICATIONS	
PARAMETER	
Total electrical travel	250° ± 3°
Independent linearity	± 1.5 %
Total resistance (R_n)	4 kΩ ± 20 %
Output smoothness	< 0.1 % (NFC 93255)
Power rating at +40 °C	0.5 W
Power rating at +125 °C	0.05 W
Wiper current limiting resistance (R_p)	1.7 kΩ
Recommended wiper current	< 100 µA
Maximum wiper current	15 mA for 1 min
Recommended load impedance	≥ 100 R_n

MECHANICAL SPECIFICATIONS	
PARAMETER	
Mechanical rotation	240° ± 3°
Lever return torque at start of travel	≥ 1.5 N cm
Lever return torque at end of travel	≤ 7.5 N cm
Stop strength	60 N cm
Lever return	Clockwise
Protection class	IP 66
Mounting screw tightening torque	2.3 N m maximum

PERFORMANCE	
PARAMETER	
Operating temperature range	-40 °C to +125 °C
Storage temperature range	-55 °C to +135 °C
Vibrations	Severity 10 Hz to 2000 Hz, 10 mm or 50 *g*
Life	5M cycles (on TET)
Micro-movements (dither stroke)	> 50M cycles

Note

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

For technical questions, contact: mcbprecisionpot@vishay.com

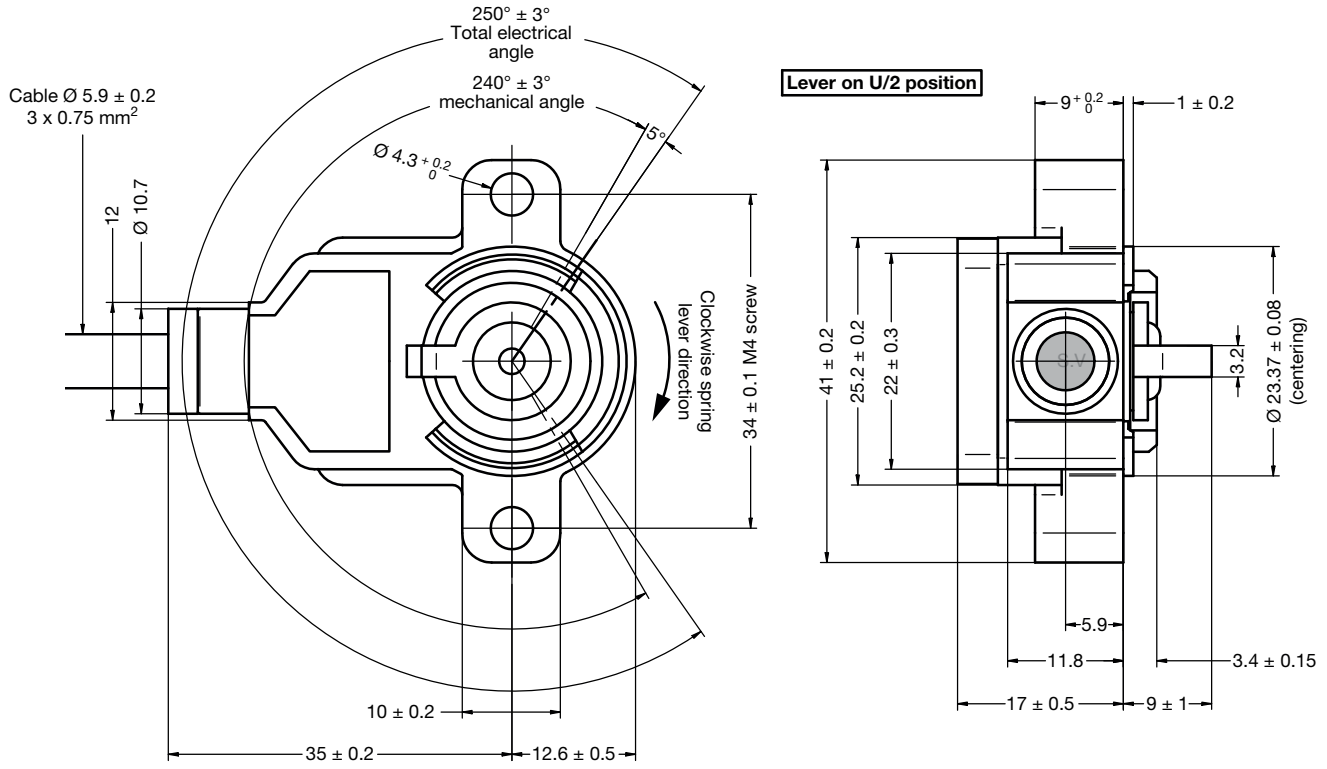
SAP PART NUMBERING GUIDELINES - PMR416

MODEL	TYPE	LEVER TYPE	VALUE	ANGLE	LEADS	PACKAGING
PMR4	06 = cable output	C = lever C	402 = 4K0	250	A = cable	C = 20 pcs G = 100 pcs P = 500 pcs

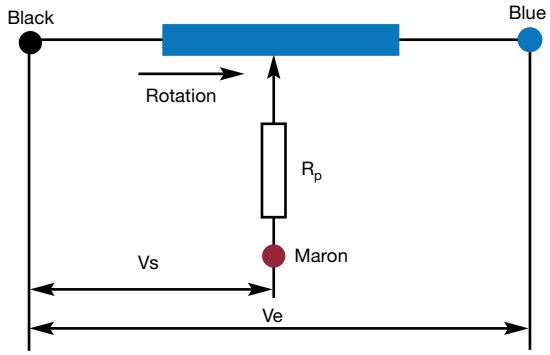
CONNECTIONS

5.9 mm ± 0.2 mm diameter cable outputs, 3 x 0.75 mm^2, length 500 mm

DIMENSIONS in millimeters



ELECTRICAL DIAGRAM



OPTIONS (on request)

- Other electrical travel
- Other total resistance
- Other linearity
- No protection resistance (R_p)
- Specific connections
- Other lever

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