

MINI POT

22.5mm Diameter



The output of a rotary potentiometer is a voltage which changes in direct proportion to the shaft angle. A constant voltage is required across the supply and ground wires of the sensor. No internal end stops are fitted, so continuous rotation is possible. The sensors are fully sealed against the ingress of fluids. Various lengths of electrically active track are available, up to a maximum of 348°.

Please request our installation datasheet for further details.

Electrical

- Nominal track resistance 5kohm $\pm 20\%$
- Nominal resistance temperature coefficient $\pm 20\text{ppm}/^\circ\text{C}$
- Typical wiper current 5 μA
- Non-linearity (measured over the central 90% of the electrical angle) $\pm 0.4\%\text{FS}$ typ, $\pm 0.7\%\text{FS}$ max
- Insulation resistance $> 10\text{Gohm}$ @ 500Vdc
- Track length tolerance $\pm 3^\circ$
- Half voltage position tolerance $\pm 2^\circ$ typ, $\pm 4^\circ$ max

Viewed from the end of the shaft, rotating the shaft in the clockwise direction increases the resistance between supply and signal.

Cable and Connection Definition

- 22 AWG un-screened cable
- Cable length is shown on the order details but any length is available on request
- Various automotive and military standard connectors are available
- Connection

White wire	Pin A	Pin 1	Supply
Red wire	Pin B	Pin 2	Signal
Green wire	Pin C	Pin 3	Ground

Application

- Throttle position, steering wheel angle, gear drum position, accelerator pedal position, clutch pedal/paddle position.

Mechanical

- O ring shaft seal
- Body Aluminium alloy, anodised and dyed black
- Maximum operational speed 120rpm
- Minimum rotational life 100 million cycles
- Weight less than 50g (including cable, where fitted)
- Elastomer boot for strain relief to the sensor body (if cable is fitted)

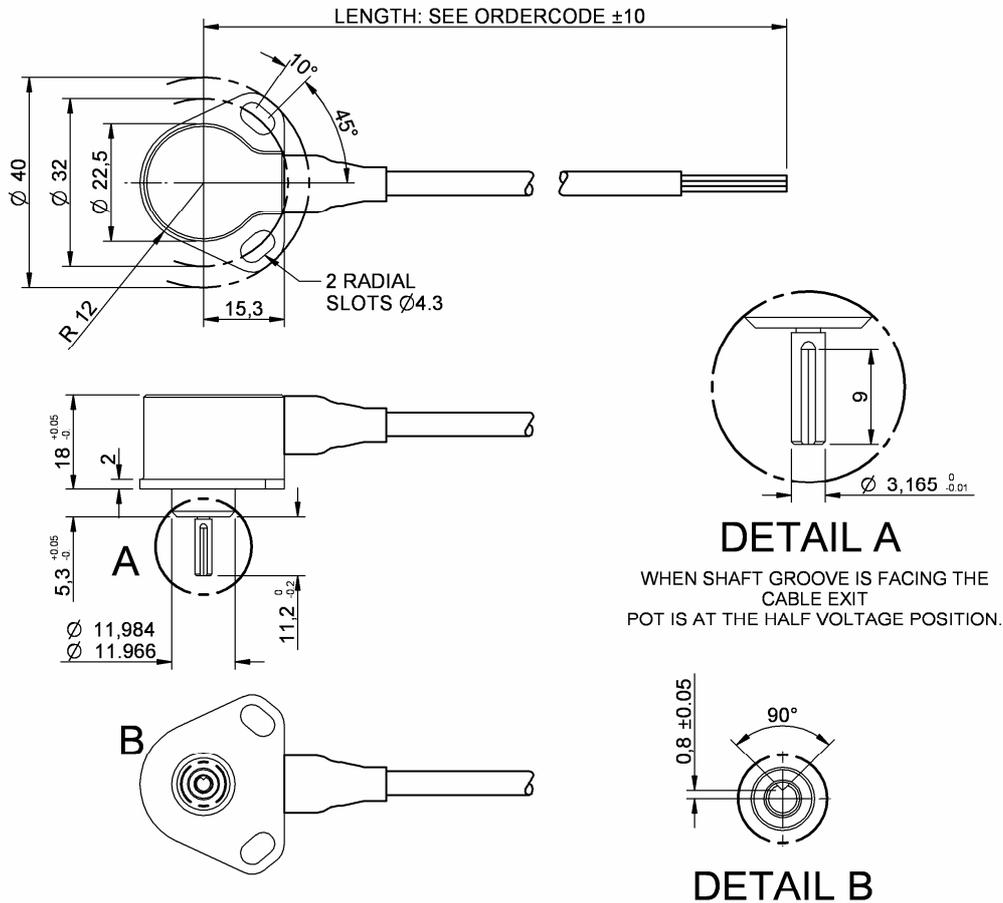
Design and manufacture is in-house, so if our existing designs do not suit your application, we can provide cost effective customised parts to suit even the most demanding application. No engineering charges are made for simple modifications such as customer specific connectors, cable protection and cable lengths. Please contact our technical consultancy service who will be pleased to help.

Environmental

- Vibration 50Hz to 2500Hz @ 40g 8hrs per axis
- Resistant to standard motorsport fluids
- Maximum humidity 100%
- Viton jacketed cable
- Operating temperature -10 to +150°C

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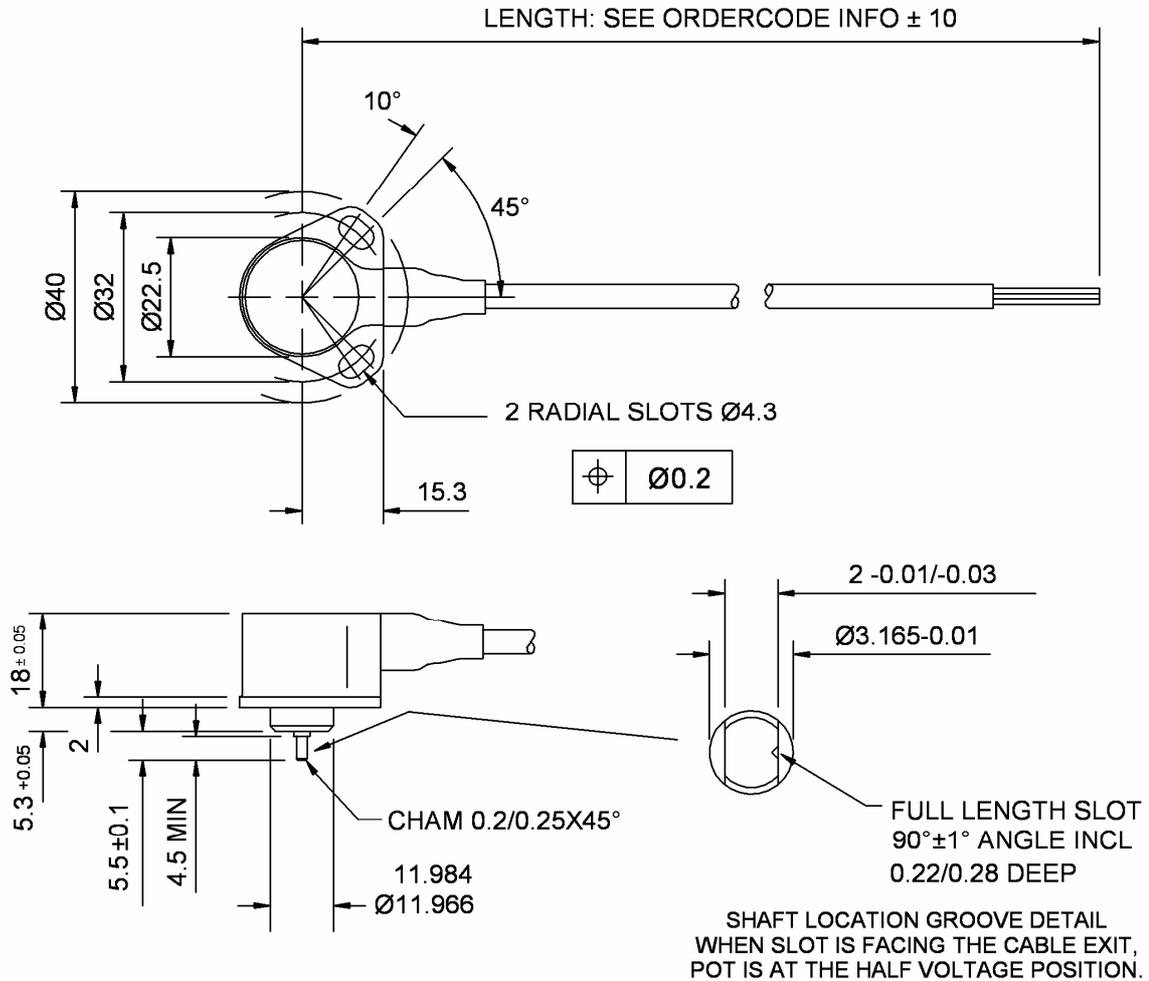
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Cable Length	Electrical Angle	Order Code
1000mm	97.5°	O 030 370 009 008
1000mm	130°	O 030 370 009 002
1000mm	348°	O 030 370 009 042

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22.5mm Diameter



Cable Length	Electrical Angle	Order Code
1000mm	97.5°	O 030 370 009 022
1000mm	130°	O 030 370 009 021
1000mm	348°	O 030 370 009 035