

RPE3-635-PA ROTARY ENCODER

Features

A rotary position encoder with absolute 4-20mA current output, based on contactless magnetic sensors. Robustly built with two ball bearings. Suitable for speeds up to 7500rpm, with 10 bit accuracy.

- Absolute analog current output 4-20mA
- Wide supply voltage of 12-28VDC
- 6.35mm diameter shaft
- Also available in absolute voltage output - RPE1 and incremental quadrature and absolute PWM output - RPE2

Typical applications:

- Long run cabling
- Lever angle sensor
- Valve angle sensor
- Industrial actuator position
- Motor speed sensor
- Gearbox speed sensor
- Robotics encoder
- Control position indicator
- Front panel switch
- CNC Machine tool position
- Rotary position sensing
- Handwheel / Jogwheel encoder



Technical Data

Electrical

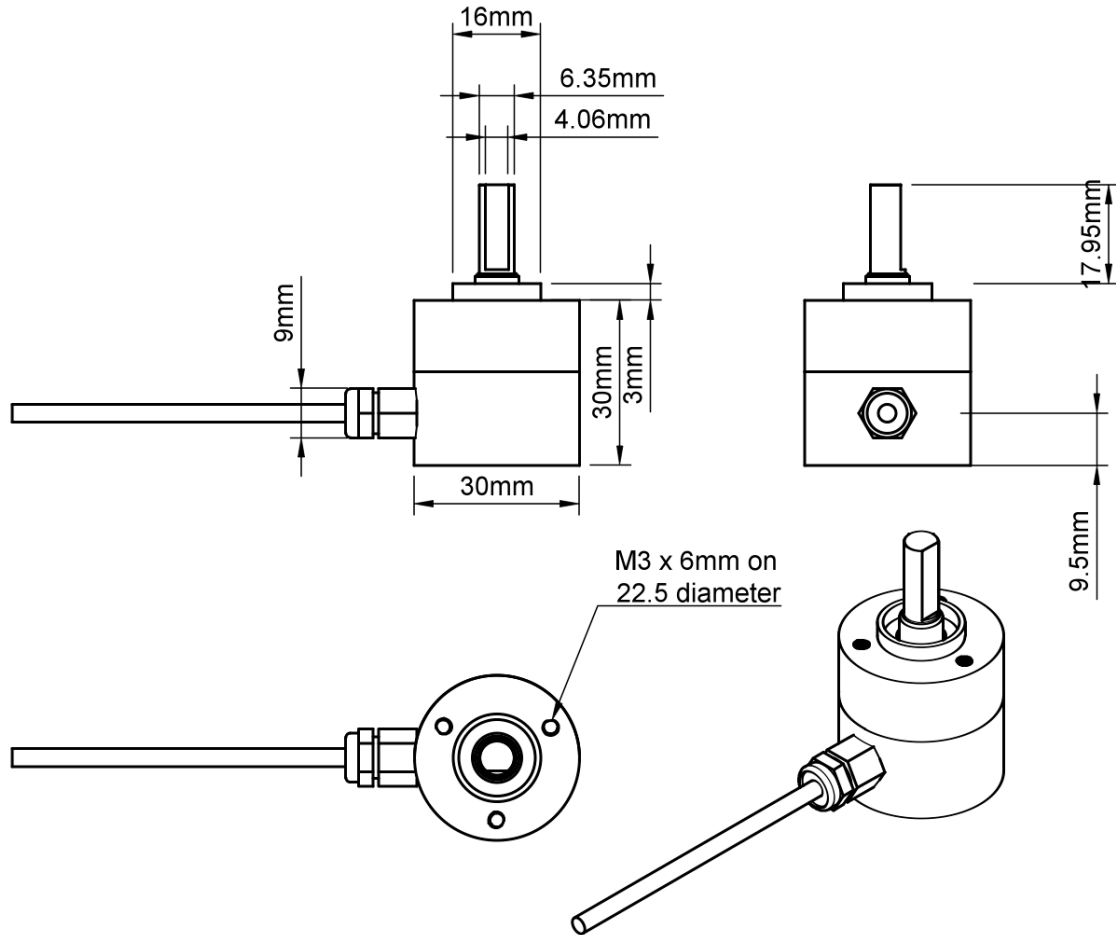
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|----------------------|---|
| Supply Voltage (VDD) | 12VDC to 28VDC |
| Supply Current | 40mA |
| Resolution | 10 bit |
| Output | 10 bit absolute analog current 4-20mA for 0-360° linearly increasing for clockwise rotation, decreasing for counter-clockwise rotation. |
| RoHS status | Compliant |
| Sampling rate | 10.4k samples per second (ksps) |

Mechanical

| | |
|---|--|
| Operating speed | 360° continuous rotation. Maximum speed 3000rpm with v-ring seal, 7500rpm without seal. |
| Shaft support | Dual 8mm ID ball bearings. |
| Construction material main body and shaft | Anodized Aluminium. |
| Ingress Protection | IP50 if v-ring seal is in place. |
| Mount | 16mm flange with 3 x M3 holes 6mm thread on 22.5mm diameter. (screws supplied) |
| Weight | 64g |
| Termination | Colour coded multicore cable Mil Spec MIL-W-27500, flying leads. ext.dia 3.2mm, int.dia 1.1mm. 580mm minimum length. |

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Nominal External Dimensions



| WIRE | SYMBOL | DESCRIPTION |
|-----------------------|--------|-----------------------|
| White - orange stripe | VDD | 12-28V DC |
| White - blue stripe | VSS | Ground |
| White | Output | Current output 4-20mA |

zero point is flat on shaft facing cable gland

RPE3 part numbers:

| | |
|-------------|-----------------------------------|
| RPE3-8 | 8mm diameter shaft |
| RPE3-635 | 6.35mm diameter shaft |
| RPE3-635-PA | 6.35mm diameter shaft - shortened |

Encoders can be purchased directly from
sinusoid.com

For further enquiries or quantity purchases
 contact

<http://store.sinusoid.com/>