



10 Bit MINI Absolute Analogue Encoder, MINI NCP, VE-Voltage Encoder

The new product in PANKAJ Basket, Model VE-360 to provide Solid state analogue output on panel mounting manually actuation using contactless Hall's effect technology. Burg pin connector's makes termination connection easy.

The product is also available, pre programmed with effective rotational angle of 45°, 90°, 180° and 360° in CW and CCW.

Features

- ◆ 25 mm Ø, 12 mm height Moulded housing
- ◆ 3/8" x 32 TPI, 10mm long Brass Nickle Plated Bush
- ◆ 6.35 mm Ø, 15 mm long Brass Nickel plated Shaft

Specifications

Angle of Rotation	0~360° Clockwise rotation (Endless), can be factory programmed for 180°, 90°, 45° and Counter Clockwise rotation
Auxiliary Supply (Vss)	5VDC±10%, 25mA max
Output	0-Vss, Ratio metric with supply (Load ≥ 2KΩ)
Total Independent linearity	±0.7° (with respect to best line fit and over full temperature range)
Resolution	10 bit (0.35°) over 360° for 360° range, 10 bit (0.175°) over 180° for 180° range, 10 bit (0.088°) over 90° for 90° range, 10 bit (0.088°) over 45° for 45° range
External Magnetic Field Effect	Negligible effect due to Differential Measuring technique & sensor conditioning circuitry. (It is desirable to mount encoder away from strong magnetic field, at least 100mm)
Maximum Angular Shaft Speed	100RPM. Number of samples per revolution decreases as the speed of rotation increases. Accuracy of output is not affected by Speed
Operating Temperature Range	0°~70°C
Temperature Compensation	No external compensation required
Insulation Resistance	2000MΩ min. @ 500VDC
H.V. Test	No damage for 1 min at 250VAC
Protection with 100mA fast blow fuse in series with supply	a. Reverse polarity protection, b. Maximum auxiliary supply up to 35VDC, c. voltage output short circuit protected to ground rail
Rotational life	1 million
Protection Class	IP-40
Fixing Method	3/8" x 32 TPI ME bush
Size	Refer Drawing
Casing Material	Reinforced Polyamide
Shaft Material	Nickel Plated Brass
Weight	22gm

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Functional Description

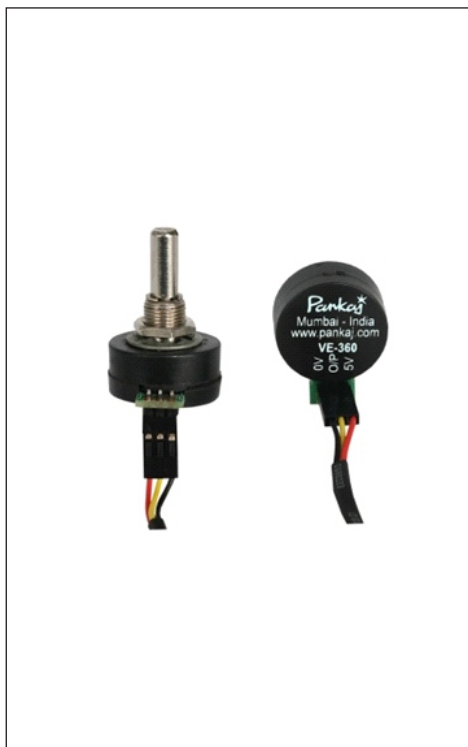
Contactless measurement technique gives output in ratio metric with supply voltage. Output voltage is taken out through berge pin connection as marked on housing or wires can be directly soldered on gold plated output PCB terminals.

Sample Rates

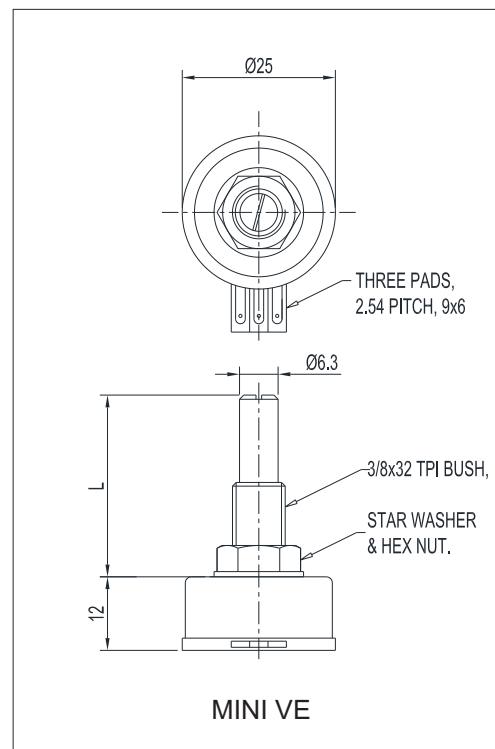
Sampling Rate, $n = 60 / (\text{RPM} \times 384\mu\text{s})$.

e.g. RPM = 60, then $n = 60 / (60 \times 384 \times 10^{-6}) = 2604$ samples/second.

Product Image



Dimensional Diagram



Applications

- ◆ Automation,
- ◆ Test and Measuring Instruments,
- ◆ Robotics,
- ◆ Crane, Angle Measurement & many more.

Ordering Information

Model No.	Angle of Rotation
VE	0°/360°, 45°, 90°, 180°

Example: VE-90

Note: We reserve the right to make any kind of design, specifications or functional modification at any moment without prior notice