

# 60 mm Diameter Sine Wave Incremental Rotary Encoders



## E60-A Series CATALOG

For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.

The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

### Features

- Ø 60 mm housing, Ø 20 mm hollow shaft
- Analog sine wave operational amplifier (op-amp) output
- Power Supply: 5 VDC $\pm$  5%

### Ordering Information

This is only for reference, the actual product does not support all combinations. For selecting the specified model, follow the Autonics website.

**E60 H 20 - 2048 - 10 - A - 5 - ①**

#### ① Connection

- R: Axial cable type
- S: Radial cable type

### Product Components

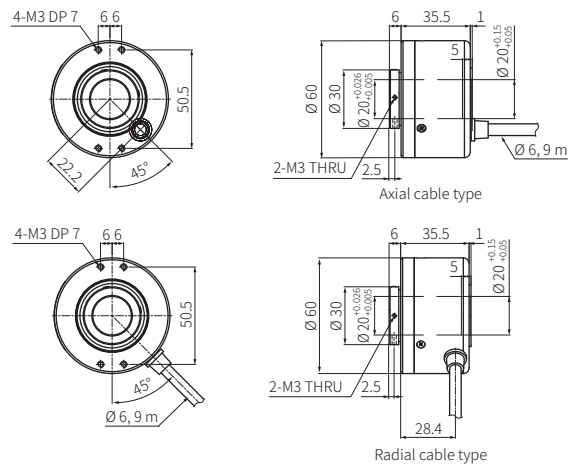
- Product (+ bracket)
- Bolt  $\times$  4
- Instruction manual

### Specifications

<b>Model</b>	<b>E60H20-2048-10-A-5-□</b>
<b>Resolution</b>	2,048 PPR
<b>Control output</b>	Analog sine wave OP Amp. output
<b>Output phase</b>	A, $\bar{A}$ , B, $\bar{B}$ , Z, $\bar{Z}$ , C, $\bar{C}$ , D, $\bar{D}$
<b>Output current</b>	$\leq$ 10 mA
<b>Output voltage <math>V_{pp}</math></b>	$0.5 \pm 0.1$ VDC $\pm$
<b>DC OFFSET <math>V_{DC\pm}</math></b>	$2.5 \pm 0.3$ VDC $\pm$
<b>Max. response frequency</b>	200 kHz
<b>Max. allowable revolution</b>	6,000 rpm
<b>Starting torque</b>	$\leq$ 0.02 N m
<b>Inertia moment</b>	$\leq$ 110 g $\cdot$ cm <sup>2</sup> ( $11 \times 10^{-6}$ kg $\cdot$ m <sup>2</sup> )
<b>Allowable shaft load</b>	Radial: $\leq$ 5 kgf, Thrust: $\leq$ 2.5 kgf
<b>Unit weight (packaged)</b>	$\approx$ 720 g ( $\approx$ 750 g)
<b>Approval</b>	<b>CE EAC</b>
<b>Power supply</b>	5 VDC $\pm$ 5% (ripple P-P: $\leq$ 5%)
<b>Current consumption</b>	$\leq$ 120 mA (no load)
<b>Insulation resistance</b>	Between all terminals and case: $\geq$ 100 M $\Omega$ (500 VDC $\pm$ megger)
<b>Dielectric strength</b>	Between all terminals and case: 750 VAC $\sim$ 50 / 60 Hz for 1 minute
<b>Vibration</b>	1 mm double amplitude at frequency 10 to 55 Hz (for 1 minute) in each X, Y, Z direction for 2 hours
<b>Shock</b>	$\leq$ 100 G
<b>Ambient temp.</b>	-20 to 100 °C, storage: -25 to 100 °C (no freezing or condensation)
<b>Ambient humi.</b>	35 to 85%RH, storage: 35 to 90%RH (no freezing or condensation)
<b>Protection rating</b>	IP40 (IEC standard)
<b>Connection</b>	Axial / Radial cable type model
<b>Cable spec.</b>	Ø 6 mm, 17-wire, 9 m, shield cable
<b>Wire spec.</b>	AWG28 (0.08 mm, 17-core), insulator diameter: Ø 0.8 mm

### Dimensions

• Unit: mm, For the detailed drawings, follow the Autonics website.



### ■ Bracket

