

88 mm Diameter Incremental Rotary Encoders



E88 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 88 mm housing / Ø 30 mm hollow shaft
- Install directly on rotating shafts of elevator winding machines. No couplings required.
- Power supply: 5 VDC \pm 5%, 12 - 24 VDC \pm 5%
- Output types: complementary, line driver

Ordering Information

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

E88 H 30 - 1024 - ① - ② - ③

① Output phase

2: A, B
6: A, \bar{A} , B, \bar{B} , Z, \bar{Z}

② Control output

No mark: Complementary output
L: Line driver output

③ Power supply

5: 5 VDC \pm 5%
15: 15 VDC \pm 5%

Product Components

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

Specifications

Model	E88H30-1024-2-15	E88H30-1024-2-L-5
Resolution	1,024 PPR	
Control output	Complementary output	Line driver output
Output phase	A, B	A, \bar{A} , B, \bar{B} , Z, \bar{Z}
Inflow current	\leq 15 mA	\leq 20 mA
Residual voltage	\leq 2.0 VDC \pm	\leq 0.5 VDC \pm
Outflow current	\leq 15 mA	\leq -20 mA
Output voltage	\geq 10 VDC \pm	\geq 2.5 VDC \pm
Response speed	\leq 1 μ s ⁰¹⁾	\leq 0.5 μ s ⁰²⁾
Max. response freq.	150 kHz	
Max. allowable revolution ⁰³⁾	3,600 rpm	
Starting torque	\leq 0.06 N m	
Inertia moment	\leq 800 g \cdot cm ² (8×10^{-5} kg \cdot m ²)	
Allowable shaft load	Radial: \leq 5 kgf, Thrust: \leq 2.5 kgf	
Unit weight	\approx 1.45 kg (\approx 1.49 kg)	
Approval	CE ENEC	ENEC

01) Based on cable length: 8 m, load resistance: 1 k Ω

02) Based on cable length: 8 m, I sink: 20 mA

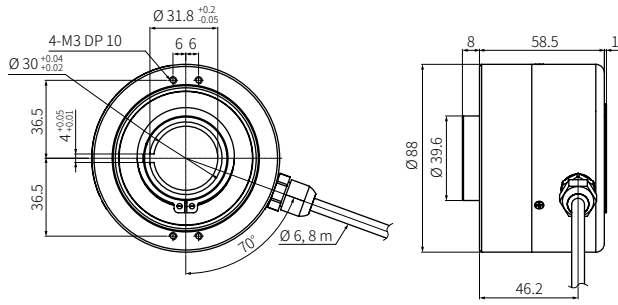
03) Select resolution to satisfy Max. allowable revolution \geq Max. response revolution

$$[\text{max. response revolution (rpm)}] = \frac{\text{max. response frequency}}{\text{resolution}} \times 60 \text{ sec}$$

Model	E88H30-1024-2-15	E88H30-1024-2-L-5
Power supply	15 VDC \pm 5% (ripple P-P: \leq 5%)	5 VDC \pm 5% (ripple P-P: \leq 5%)
Current consumption	\leq 60 mA (no load)	\leq 50 mA (no load)
Insulation resistance	Between all terminals and case: \geq 100 M Ω (500 VDC \pm megger)	
Dielectric strength	Between all terminals and case: 750 VAC \sim 50 / 60 Hz for 1 minute	
Vibration	1 mm double amplitude at frequency 10 to 55 Hz (for 1 minute) in each X, Y, Z direction for 2 hours	
Shock	\leq 100 G	
Ambient temp.	-10 to 70 $^{\circ}$ C, storage: -25 to 85 $^{\circ}$ C (no freezing or condensation)	
Ambient humi.	35 to 85%RH, storage: 35 to 90%RH (no freezing or condensation)	
Protection rating	IP50 (IEC standard)	
Connection	Radial cable type	
Cable spec.	\varnothing 6 mm, 6-wire (Line driver output: 8-wire), 8 m, shield cable	
Wire spec.	AWG24 (0.16 mm, 11-core), insulator diameter: \varnothing 1 mm	AWG24 (0.08 mm, 40-core), insulator diameter: \varnothing 1 mm

Dimensions

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



Bracket

