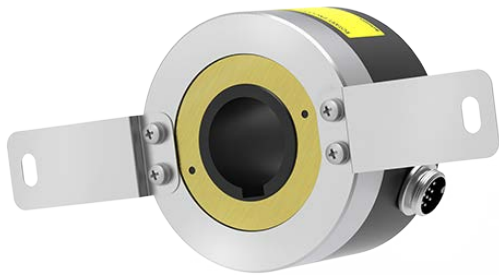


100 mm Diameter Incremental Rotary Encoders



E100 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 100 mm housing, Ø 35 mm hollow shaft
- Ideal for application in elevator systems
- Various resolutions: 512, 1024, 10000 pulses per revolution
- Various control output options
- Power supply: 5 VDC \pm 5%, 12 - 24 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.

E100 H 35 - ① - ② - ③ - ④

① Resolution

Number: Refer to resolution in 'Specifications'

② Output phase

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

③ Control output

T: Totem pole output
N: NPN open collector output
V: Voltage output
L: Line driver output

④ Power supply

5: 5 VDC \pm 5%
24: 12 - 24 VDC \pm 5%

Product Components

- Product (+ connector)
- Instruction manual
- Bolt \times 6
- Bracket \times 2
- Connector cable \times 1

Specifications

| Model | E100H35-□-3-T-□ | E100H35-□-3-N-□ | E100H35-□-3-V-□ | E100H35-□-6-L-□ |
|---|---|---------------------------|----------------------|--|
| Resolution | 512 / 1,024 / 10,000 PPR model | | | |
| Control output | Totem pole output | NPN open collector output | Voltage output | Line driver output |
| Output phase | A, B, Z | A, B, Z | A, B, Z | A, \bar{A} , B, \bar{B} , Z, \bar{Z} |
| Inflow current | \leq 30 mA | \leq 30 mA | - | \leq 20 mA |
| Residual voltage | \leq 0.4 VDC \pm | \leq 0.4 VDC \pm | \leq 0.4 VDC \pm | \leq 0.5 VDC \pm |
| Outflow current | \leq 10 mA | - | \leq 10 mA | \leq -20 mA |
| Output voltage (5 VDC\pm) | \geq (power supply -2.0) VDC \pm | - | - | \geq 2.5 VDC \pm |
| Output voltage (12 - 24 VDC\pm) | \geq (power supply -3.0) VDC \pm | - | - | \geq (power supply -3.0) VDC \pm |
| Response speed ⁰¹⁾ | \leq 1 μ s | | | \leq 0.5 μ s |
| Max. response freq. | 300 kHz | | | |
| Max. allowable revolution ⁰²⁾ | 3,600 rpm | | | |
| Starting torque | \leq 0.03 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 1130 g (\approx 1400 g) | | | |
| Approval | CE EAC | CE EAC | CE EAC | EAC |

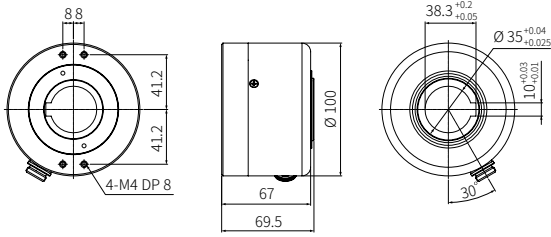
01) Based on cable length: 2 m, I sink: 20 mA

02) Select resolution to satisfy Max. allowable revolution \geq Max. response revolution
 [max. response revolution (rpm) = $\frac{\text{max. response frequency}}{\text{resolution}} \times 60 \text{ sec}$]

| | |
|------------------------------|---|
| Power supply | 5 VDC \pm 5% (ripple P-P: \leq 5%) / 12 - 24 VDC \pm 5% (ripple P-P: \leq 5%) model |
| Current consumption | Totem pole, NPN open collector, Voltage output: \leq 80 mA (no load) Line driver output: \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 or 300 m/s ² 10 to 55 Hz (for 1 minute) in each X, Y, Z direction for 2 hours |
| Shock | \leq 75 G |
| Ambient temp. | -10 to 70 °C, storage: -25 to 85 °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 connector type |
| Cable spec. | Ø 5 mm, 5-wire (line driver output: Ø 6 mm, 8-wire), 2 m, shield cable |
| Wire spec. | AWG24 (0.08 mm, 40-core), insulator diameter: Ø 1 mm |
| Connector spec. | Totem pole, NPN open collector, Voltage output: SCN-16-7P Line driver output: SCN-20-10P |

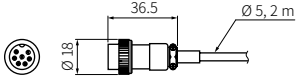
Dimensions

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

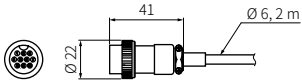


■ Connector cable

- 7-pin connector cable



- 10-pin connector cable



■ Bracket

