

# 68 mm Diameter Incremental Rotary Encoders



## E68 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 68 mm housing, Ø 15 mm solid shaft
- High-strength shaft (radial load: 20 kgf, thrust load: 10 kgf)
- 180 kHz response frequency
- Radial connector type
- Various resolutions: 500, 600, 1024 pulses per revolution
- Power supply: 5 VDC $\pm$  5%
- IP65 protection structure (IEC standard)

### Ordering Information

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

**E68 S 15 - 1 - 6 - L - 5**

#### ① Resolution

Number: Refer to resolution in 'Specifications'

### Product Components

- Product (+ bracket)
- Instruction manual
- Key

### Specifications

Model	E68S15-□-6-L-5
Resolution	500 / 600 / 1,024 PPR model
Control output	Line driver output
Output phase	A, $\bar{A}$ , B, $\bar{B}$ , Z, $\bar{Z}$
Inflow current	≤ 20 mA
Residual voltage	≤ 0.5 VDC $\equiv$
Outflow current	≤ -20 mA
Output voltage	≥ 2.5 VDC $\equiv$
Response speed <sup>01)</sup>	≤ 0.5 $\mu$ s
Max. response freq.	180 kHz
Max. allowable revolution <sup>02)</sup>	6,500 rpm
Starting torque	≤ 0.15 N m
Allowable shaft load	Radial: ≤ 20 kgf, Thrust: ≤ 10 kgf
Unit weight	≈ 550 g
Approval	ERC

01) Based on cable length: 1 m, I sink: 20 mA

02) Select resolution to satisfy Max. allowable revolution ≥ 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: ≤ 5%)
Current consumption	≤ 50 mA (no load)
Insulation resistance	Between all terminals and case: ≥ 100 M $\Omega$ (500 VDC $\equiv$ 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	≤ 50 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	IP65 (IEC standard)
Connection	Radial connector type
Connector spec.	1-1/4-18UNEF-2A socket type

### Dimensions

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

