68 mm Diameter Incremental
Rotary Encoders

E68 Series

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⎓ ± 5%
- IP65 protection structure (IEC standard)

Specifications

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

01) Based on cable length: 1 m, I sink: 20 mA
02) Select resolution to satisfy Max. allowable revolution ≥ Max. response revolution

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

Power supply	5 VDC⎓ ± 5% (ripple P-P: ≤ 5%)
Current consumption	≤ 50 mA (no load)
Insulation resistance	Between all terminals and case: ≥ 100 MΩ (500 VDC⎓ megger)
Dielectric strength	Between all terminals and case: 750 VAC~ 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

View product detail