

40 mm Diameter Incremental Rotary Encoders

E40 Series



Features

- Ø 40 mm housing incremental rotary encoders
- Shaft, hollow shaft, blind hollow shaft models available
- Easy installation in tight or limited spaces
- Low shaft moment of inertia
- Various resolutions:
1 to 5000 pulses per revolution
- Various control output options
- Power supply:
5 VDC \pm 5%, 12 - 24 VDC \pm 5%

Specifications

Model	E40□□-□-□-□-□-□ □-T-□-□	E40□□-□-□-□-□-□ □-N-□-□	E40□□-□-□-□-□-□ □-V-□-□	E40□□-□-□-□-□-□ □-L-□-□
Resolution	1 / 2 / 5 / 12 PPR ⁰¹⁾ 10 to 5,000 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 ⁰²⁾	\leq 1 μ s			\leq 0.5 μ s
Max. response freq.	300 kHz			
Max. allowable revolution ⁰³⁾	5,000 rpm			
Starting torque	E40S: \leq 0.004 N m E40H, E40HB: \leq 0.005 N m			
Inertia moment	\leq 40 g·cm ² (4×10^{-6} kg·m ²)			
Allowable shaft load	Radial: \leq 2 kgf, Thrust: \leq 1 kgf			
Unit weight	\approx 120 g			
Approval	CE EAC	CE EAC	CE EAC	EAC

01) Depending on the control output, only A, B or A, \bar{A} , B, \bar{B} are output.

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

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

View product detail



Shaft Type



Hollow Shaft Type



Blind Hollow
Shaft Type