

HE40B/HE50B

Shaft type Rotary encoder

- Incremental type
- Wide power voltage
- Simple installation structure
- Various of output specifications



Specification

Model	HE□□B-□-□-N-□	HE□□B-□-□-O-□	HE□□B-□-□-T-□	HE□□B-□-□-L-□
Output type	NPN Voltage output	NPN Open collector output	Totem Pole output	Line Drive output
Insulation Resistance	Over 100 MΩ (Base on 500 V d.c mega between terminal and case)			
Dielectric strength	800 V a.c (Between terminal and case at 60 Hz for 1 minute)			
Vibration Resistance	10 -55 Hz (Cycle for 1 minute), Double amplitude width : 1.5 mm, each X · Y · Z direction for 2 hours			
Shock Resistance	Ø40 : 490 m/s ² Max. Ø50 : 735 m/s ² Max.			
Ambient Temperature	-10 ~ 70 °C (Without condensation), Storage Temperature : -25 ~ 85 °C			
Ambient Humidity	35 ~ 85 % R.H			
Protection	Protection IP 50 (IEC Standard)			
Wire Specification	5P, Ø5.0mm, Length : 1.5 m, Shield cable (Option : 2 m, 8 m, 10 m)(Line Driver Type : 8P, Ø 5.0 mm, Length : 1.5m, Shield cable)			
Approval				
Weight	Ø40 : 170g Ø50 : 200g			
Accessory	Ø40 : Ø6.0 or Ø8.0 mm Coupling, Ø50 : Ø8.0 mm Coupling, Bracket			

Electrical Specification

output signal	A, B, Z phase		A, B, Z, /A, /B, /Z phase
Phase difference on Output	Phase difference between A, B phase : T/4 ± T/8 (Cycle of A phase = T)		
Max Response Frequency	300 kHz		
Power voltage	5 - 12 V d.c /12 - 24 V d.c. ±5 %		5/12/24 V d.c. ±5 %
Current Consumption	60mA Max. (No-load)		
Connection method	Cable extended type		
Control output	Load voltage : 30 V Max. Load Current : 30 mA Max. Residual Voltage : 0.4 V Max.	* For Low Load Current:30 mA Max. Remaining Voltage:0.4 V Max. * For High Load Current:10 mA Max. Remaining Voltage: Power Voltage:-2.5 V min.	* For Low Load Current:20 mA Max. Remaining Voltage:0.4 V Max. * For High Load Current:20 mA Max. Remaining Voltage:2.5 V min.

ResponseTime	1 μ s Max. (Cable length 1.5 m / sink=30 mA)	1 μ s Max. (Cable length 1.5 m / sink=10 mA)	1 μ s Max. (Cable length 1.5 m / sink=30 mA)
--------------	---	--	--

■ Mechanical Specification

StartingTorque	$\varnothing 40$: 4×10^{-3} N·m max. $\varnothing 50$: 7×10^{-3} N·m max.
Moment of inertia	$\varnothing 40$: 4×10^{-6} kg · m ² max $\varnothing 50$: 7×10^{-6} kg · m ² max
Permissible Shaft Loading	$\varnothing 40$: Radial : Within 30 N , Thrust : Within 20 N $\varnothing 50$: Radial : Within 50 N , Thrust : Within 30 N
Max.PermissibleRevolution	5000 r/min