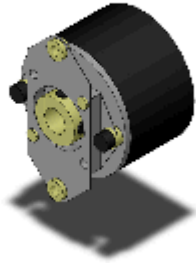




Hollow-shaft Encoder with Diameter of 40 mm

E6H-CWZ3X 1000P/R 0.5M

Incremental, Resolution 1000 P/R, 40 mm-dia., Hollow-shaft model, Line driver output, Pre-wired models (0.5 m)



Image

Encoding method	Incremental Hollow-shaft model
Resolution	1000 P/R
Output phases	A, -A, B, -B, Z and -Z
Control output	Line driver output
Connection method	Pre-wired models (Cable length: 0.5 m)

Ratings / Performance

As of December 14, 2021

Categorise		Incremental Hollow-shaft model
Diameter		40 mm dia.
Power supply voltage		5 to 12 VDC (-5% to +10%) Ripple (p-p) 5% max.
Current consumption		150 mAmax.
Resolution		1000 P/R
Inrush current		Approx. 6 A(0.3 ms)
Output phases		A, -A, B, -B, Z and -Z
Control output	Output type	Line driver output
	Output voltage	V _o : 2.5 V V _s : 0.5 V
	Load current	High level (I _o): -10 mA Low level (I _s): 10 mA
Max. response frequency		100 kHz
Phase difference on output		90±45 ° between A and B (1/4 T ± 1/8 T)
Rise and fall times of output		1 µs max. (Cable length: 0.5 m, I _o = -10 mA, I _s = 10 mA)
Starting torque		1.5 mN.m max.
Moment of inertia		2 x 10 ⁻⁶ kg.m ² max.
Shaft loading		Radial: 29.4 N Thrust: 4.9 N
Max. permissible rotation		10000 r/min
Ambient temperature		Operating: -10 to 70 °C (90% RH max.) (with no icing) Storage: -30 to 85 °C (with no icing)

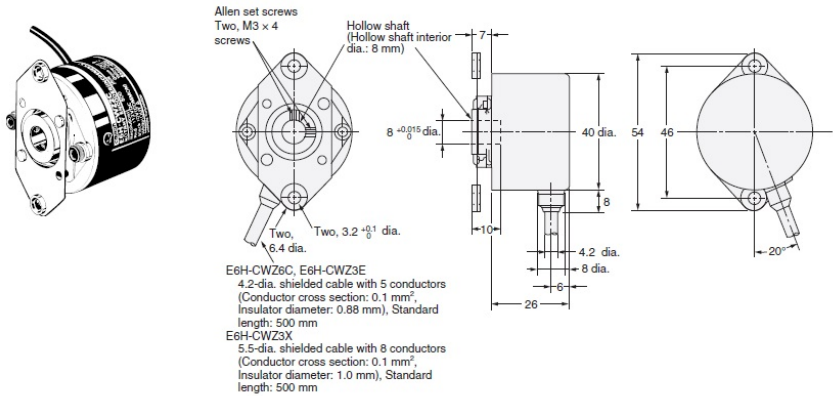
Ambient humidity	Operating: 95% max. (with no condensation) Storage: 95% max. (with no condensation)
Insulation resistance	These data are excluded as the switch is equipped with a capacitor grounding.
Dielectric strength	These data are excluded as the switch is equipped with a capacitor grounding.
Vibration resistance	Destruction: 10 to 500 Hz, 1.5 mm double amplitude or 100 m/s ² for 2 h each in X, Y, and Z directions
Shock resistance	Destruction: 300 m/s ² for 11 ms 3 times each in X, Y, and Z directions (excluding any shock to shaft)
Degree of protection	IEC: IP50
Connection method	Pre-wired models (Cable length: 0.5 m)
Material	Case: Iron Main Unit: Aluminum Flat spring: SUS304
Weight	Package: Approx. 120 g
Accessories	Instruction manual

As of December 14, 2021

Dimensions

As of December 14, 2021

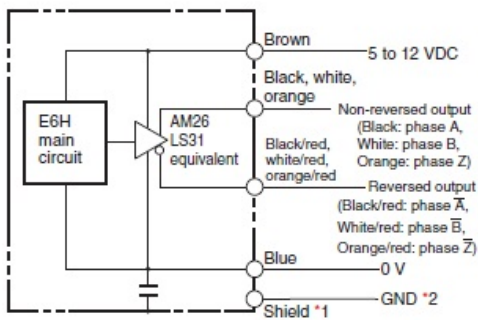
E6H-C



As of December 14, 2021

Output circuit diagram

As of December 14, 2021



*1. The shielded cable outer core (shield) is not connected to the inner area or to the case.
*2. Normally connect GND to 0 V or to an external ground.

As of December 14, 2021

Connected specification chart

As of December 14, 2021

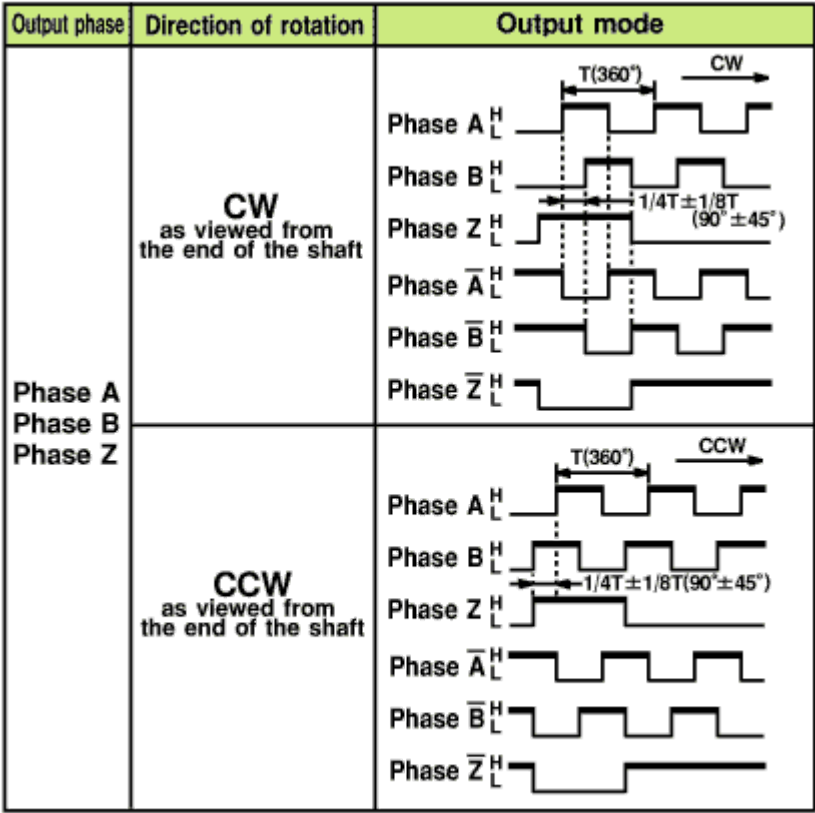
Color	Terminal
Brown	Vcc
Black	Phase A
Black/Red stripes	Phase Ā
White	Phase B
White/Red stripes	Phase B̄
Orange	Phase Z
Orange/Red stripes	Phase Z̄
Blue	0V(COMMON)

*Receiver: AM26LS32 equivalent

As of December 14, 2021

Timing chart

As of December 14, 2021



* CW direction: Phase A is $1/4 \pm 1/8T$ faster than phase B.
CCW direction: Phase A is $1/4 \pm 1/8T$ slower than phase B.

As of December 14, 2021