

Optical Incremental Rotary Encoder

MIDORI CE32R Series

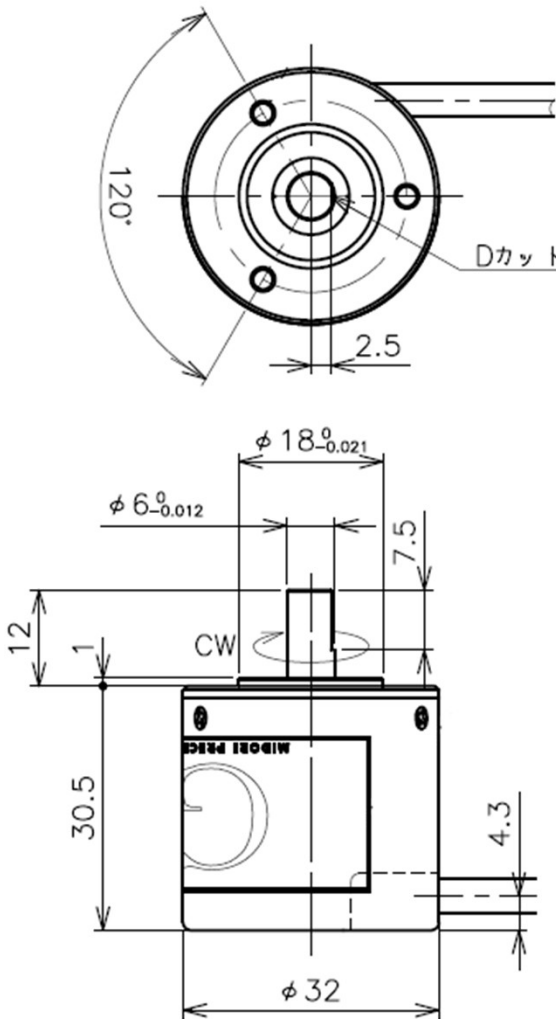


General

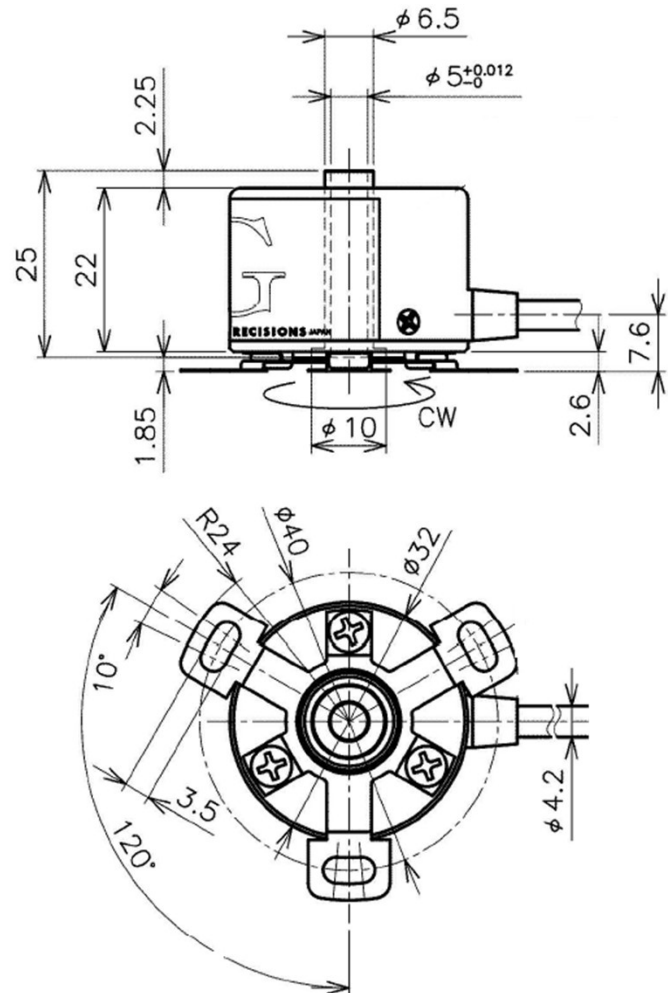
- Compact size $\Phi 32\text{mm}$, Thickness 22mm
- Resolution options: 360~144,000 P/R
- Various shaft types: Single shaft / Hollow shaft
- Output options: Voltage/ Open collector/ Line driver
- Operating temp: -20 to 85°C
- Higher shock resistance: 100 G
- IP50 (dust-proof) / IP65 (dust- and water-resistant)
- Customizable options available, including cable length, shaft diameter, and more

Dimension (mm)

Single Shaft



Hollow Shaft



Specifications

	CE32 ○△ - □ X	CE32 ○△ - □ C	CE32 ○△ - □ E
Input Voltage	DC4.5 ~ 30V		DC4.5 ~ 13.5V
Current Consumption	120mA MAX (At no load)		
Output Resolution (Pulse / Revolution)	360	10,800	500 10,000 512 16,384
	720	18,000	1,000 12,500 1,024 32,768
	1,800	21,600	1,500 20,000 2,048 65,536
	3,600	36,000	2,000 25,000 4,096 131,072(*)
	5,400	72,000	2,500 40,000 8,192
	7,200	144,000(*)	3,000 50,000
	9,000		5,000 90,000(*)
			6,000 100,000(*)
		8,000 125,000(*)	
	(*) Only Available with Line Driver Output		
Output Format	Line Driver Output	NPN Open Collector Output	Voltage Output
Output Phase	A, B, Z, -A, -B, -Z Phase	A, B, Z Phase	
Output Phase Difference	A Phase / B Phase : 90° ± 45° (1/4T±1/8T)		
Output Capacity	Output Voltage H Level : 2.5V MIN. L Level : 0.8V MAX.	Input Voltage: DC30V MAX. Sink Current : 30mA Output residual voltage: 0.5V MAX.	Output Resistance : 1.2KΩ Sink Current : 20mA MAX. Output residual voltage: 0.5V MAX.
Max Response Frequency	2MHz		125kHz
Output Start UP/ Fall Time	0.1μs MAX.	1μs MAX.	
Moment of Inertia	3x10 ⁻⁶ Kg · m ² MAX.		
Shaft Load Tolerance	Radial Load: 19.6N (2kgf) / Thrust Load: 9.8N (1kgf)		
Max Allowable Speed	6,000 r/ MIN.		
Shaft Running Torque	4.9mN · m MAX. (50gf · cm MAX.)		
Protection Circuit	Reverse polarity protection circuit		
Weight	80g		
Cable	AWG28-8 Core Shielded Cab Tire Cable L=1,000mm		

Environmental Specifications

Operating Temp. Range	-20~+85°C
Storage Temp. Range	-20~+85°C
Operating Humidity	35 ~ 85 % RH (No condensation)
Storage Humidity	35 ~ 85 % RH (No condensation)
Vibration	200m/ S ² 10 ~ 2000 Hz (IEC60068-2-6)
Shock	1000m/S ² 6 Directions 3 Times (IEC60068-2-27)
EMS	Immunity IEC 61000-6-2 (IEC61000-4-2,3,4,6,8)
IP Level	IP 50 / IP 65

Handling Instruction

- As this product is using “CMOS IC”, handling of harness must be done under the ESD protection.
- When the shaft is coupled, please do not apply load exceeding the radial load tolerance and the thrust load tolerance to the shaft.
- Be sure to check wiring before installing in the system so as not to cause miswiring etc. It may cause damage or breakage the encoder.

CP32R Series Model Number Designation

