

SHAFT TYPE

OEZ Model



Small High-Speed Model

- High Speed Response Frequency 150kHz.
- Up to 1500P/R.



**Model**

**OEZ- [ ] -2M [ ] - [ ] - [ ] -00E**

Resolution

0036	36P/R	04	400P/R
005	50P/R	05	500P/R
006	60P/R	0512	512P/R
01	100P/R	06	600P/R
015	150P/R	08	800P/R
02	200P/R	10	1000P/R
025	250P/R	1024	1024P/R
03	300P/R	15	1500P/R
036	360P/R		

Power Supply(Vcc)

- 05 : 5V
- 12 :12V
- 24 :24V

Cable Length

- 050 :500mm (Standard)
- 100 :1000mm
- 300 :3000mm

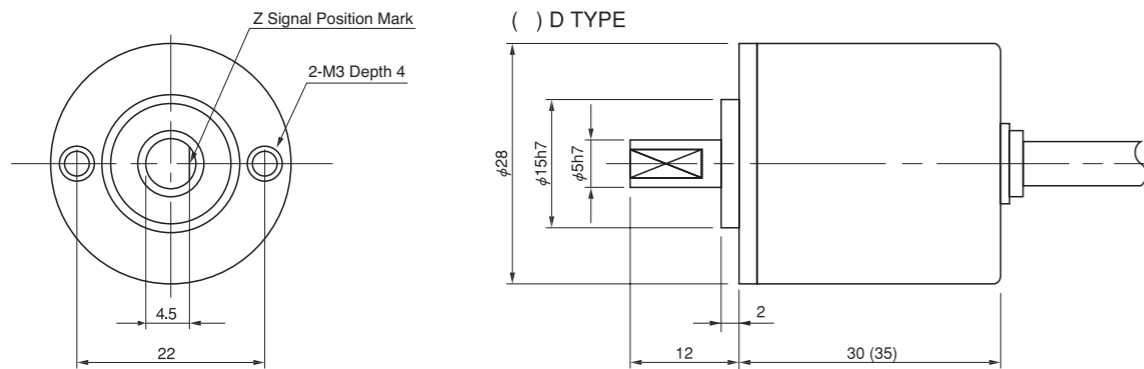
Complying with RoHS

Output Mode

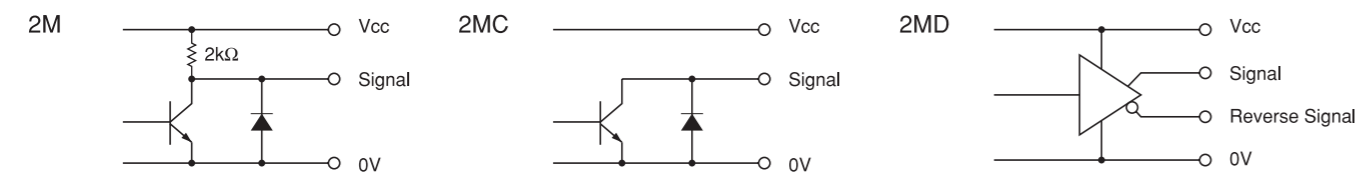
- No Indication : Voltage Output(Except 24V mode)
- C : Open Collector Output
- D : Line Driver Output(The Power Supply(Vcc) is only 5V)

Signals — 2M : AB90° Phase Difference + Index Signal

External Dimension



Output Circuit



Electrical Spec

TYPE	2M	2MC	2MC-24	2MD
Power Supply(Vcc)	DC4.5~5.5V DC10.8~13.2V		DC21.6~26.4V	DC4.75~5.25V
Current Consumption	80mA Max	60mA Max		150mA Max
Output Voltage	"H"	Vcc-1V Min		2.5V Min
	"L"※1	0.5V Max		
Maximum Sink Current	20 mA			
Rise & Fall Time	1μs Max			200 ns Max
Maximum Frequency Response	150kHz			
Withstanding Voltage of Output Tr.		50 V Max		

※1) at Maximum Sink Current

Wave Form

CW → Rotating Toward Clockwise Viewed from an Arrow

Rising point of A-Signal is always at one point while Z-Signal is at H-Level in CW.

2M  
2MC

Signal A

Signal B

Signal Z

$$P = \frac{1}{\text{Resolution}}$$

$$a, b, c, d = \frac{P}{4} \pm \frac{P}{8} \quad \frac{P}{2} \leq h \leq \frac{3P}{2}$$

Wave Ratio (Duty); 50 ± 25 (%)

2MD

Sig A

Sig Ā

Sig B

Sig B̄

Sig Z

Sig Z̄

Electrical Connections

Color	Signal	Color	Signal
Red	Power Supply(Vcc)	White	Signal B
Black	0V	Gray	Signal B̄
Green or Blue	Signal A	Yellow	Signal Z
White	Signal B	Orange	Signal Z̄
Yellow	Signal Z		
Shield	NC		

Mechanical Spec

Starting Torque	9.8×10 <sup>-4</sup> N·m Max
Angular Acceleration	1×10 <sup>5</sup> rad/s <sup>2</sup>
Shaft Loading	Thrust 4.9N
	Radial 9.8N
Moment of Inertia	2×10 <sup>-7</sup> kg·m <sup>2</sup>
Maximum Permissible Speed	6000min <sup>-1</sup>
Net Weight	60g Max

Environmental Spec

Operating Temperature	-10°C~+70°C
Storage Temperature	-30°C~+80°C
Humidity	RH 85% Max No Condensation
Vibration	10~55 Hz / 1.5mm X,Y,Z Each 2h
Shock	490m/s <sup>2</sup> , 11ms X, Y, Z Each 3 times
Ingress Protection	IP50