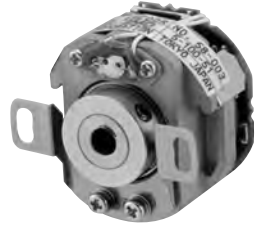


**BUILT-IN TYPE**

**SBY Model**

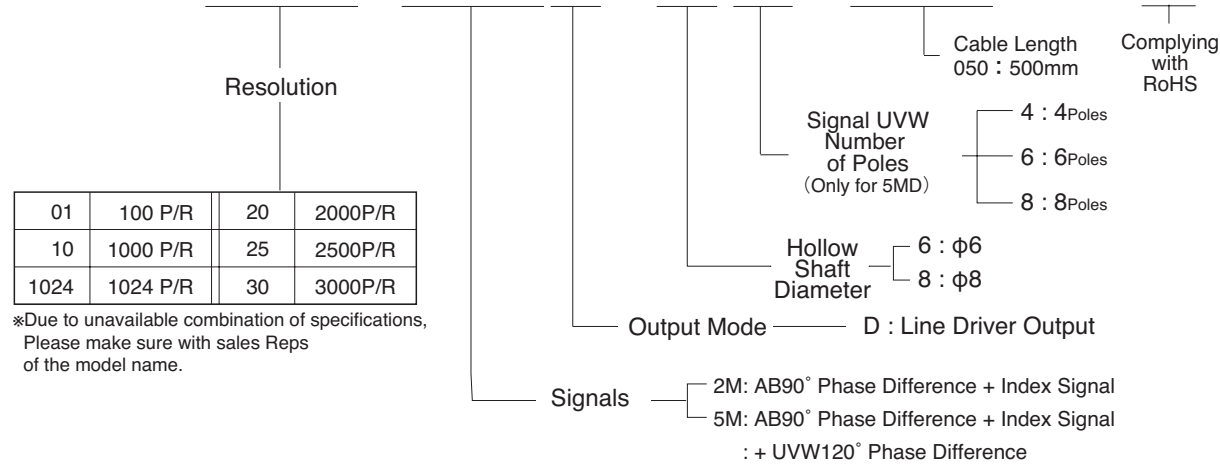


**Standard Built-in Model**

- General Application Built-in Model.
- Suitable for Small Servo-motor.

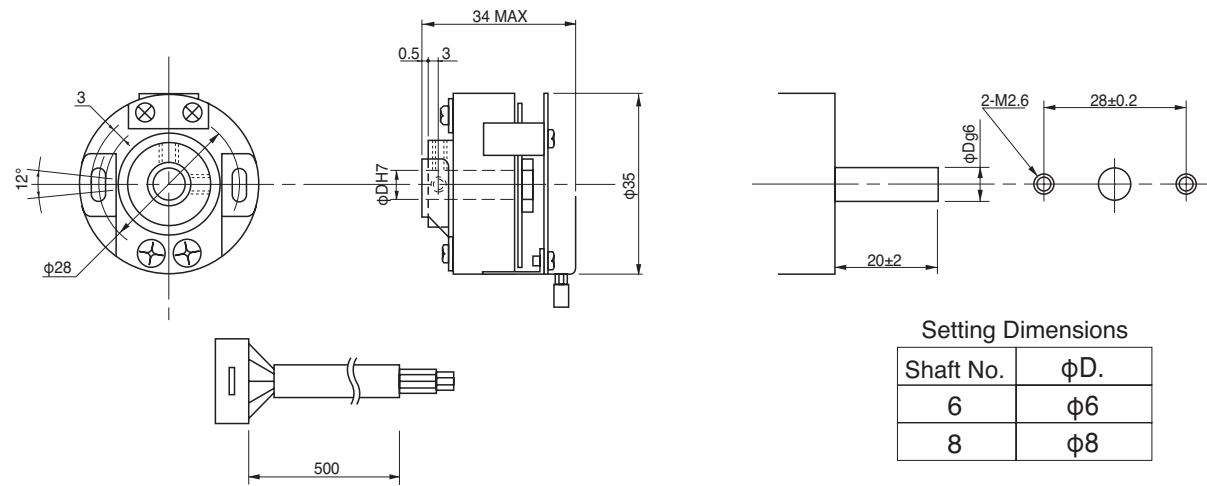


**Model**  
**SBY- [ ] - [ ] D - [ ] - 050 - 00E**

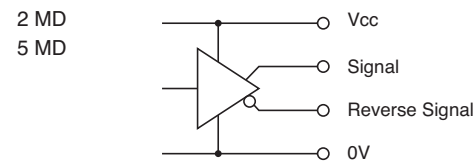


※Due to unavailable combination of specifications, Please make sure with sales Reps of the model name.

**External Dimension**



**Output Circuit**



**Electrical Spec**

TYPE	2MD	5MD
Power Supply(Vcc)	DC4.75~5.25V	
Current Consumption	160 mA Max	250 mA Max
Output Voltage	“H”	2.5 V Min
	“L” ※1	0.5 VMax
Maximum Sink Current	20 mA	
Rise & Fall Time	200 ns Max	
Maximum Frequency Response	200 kHz	

※1) at Maximum Sink Current

**Electrical Connections**

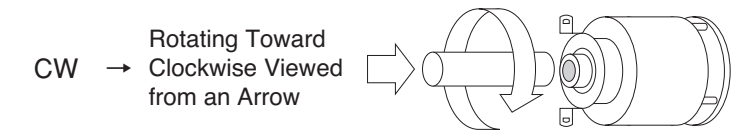
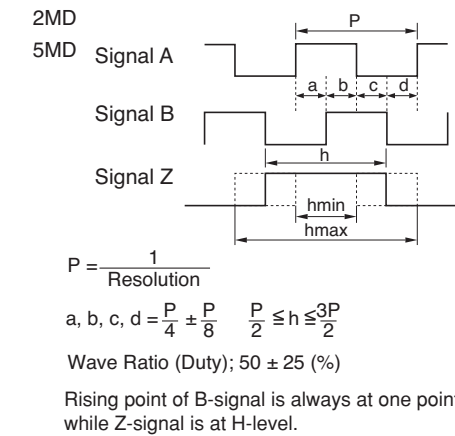
2MD

Color	Signal	Color	Signal
Red	Power Supply(Vcc)	White	Signal B
Black	0V	Gray	Signal B
Green	Signal A	Yellow	Signal Z
Blue	Signal A	Orange	Signal Z
Shield	F, G		

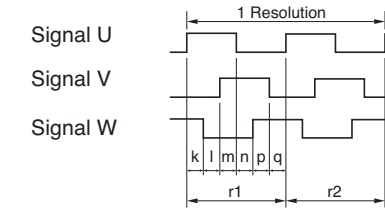
5MD

Color	Signal	Color	Signal
Red	Power Supply(Vcc)	Yellow	Signal Z
Black	0V	Yellow - White	Signal Z
Green	Signal A	Brown	Signal U
Green - White	Signal A	Brown - White	Signal U
Gray	Signal B	Blue	Signal V
Gray - White	Signal B	Blue - White	Signal V
Shield	F, G	Orange	Signal W
		Orange - White	Signal W

**Wave Form**



Only for 5MD  
●When UVW phases output are 4 poles at 120°.



Mechanical Angular k ~ q 30° ± 3° Position Relation between U and Z phases  
r1, r2 180° ± 1° Mechanical Angular 0° ± 2°

$\bar{A} \bar{B} \bar{Z} \bar{U} \bar{V} \bar{W}$  signal are reverse signal of ABZUWV.

**Mechanical Spec**

Starting Torque	2.94x10 <sup>-3</sup> N · m Max
Angular Acceleration	1x10 <sup>5</sup> rad/s <sup>2</sup>
Shaft Loading	Thrust 9.8N
	Radial 19.6N
Moment of Inertia	1x10 <sup>-6</sup> kg · m <sup>2</sup>
Maximum Permissible Speed	6000min <sup>-1</sup>
Net Weight(Without Cable)	150g Max

**Environmental Spec**

Operating Temperature	-10°C~+85°C
Storage Temperature	-20°C~+85°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