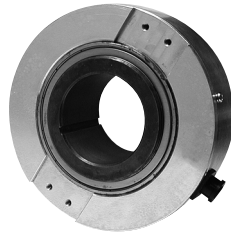


**BUILT-IN TYPE**

**SBU** Model

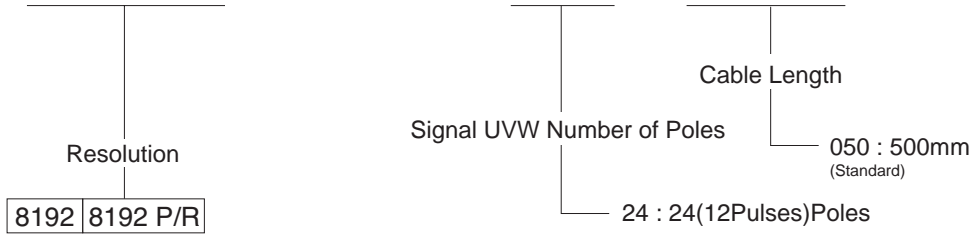


**Large Size Model**

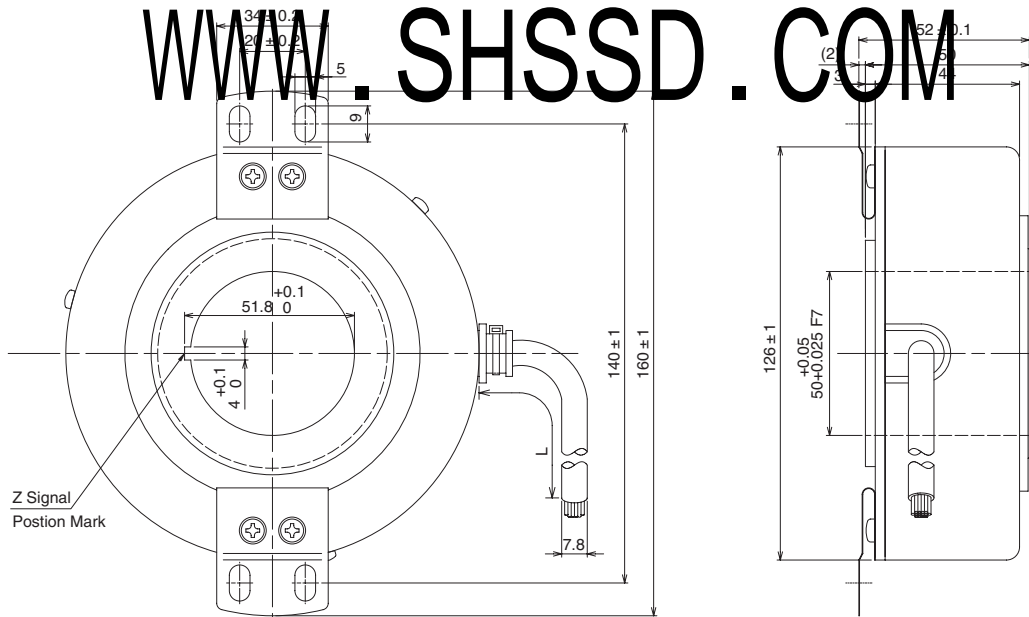
- Low Profile Hollow Through Shaft With Max. Caliber 50mm.

**Model**

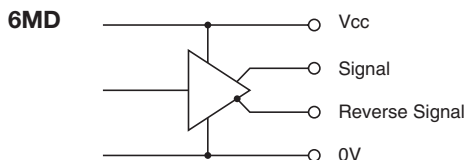
**SBU - 8192 - 6MD 24 - 500 - 00**



**External Dimension**



**Circuit of Output Signal**



### Electrical Spec.

TYPE		6MD
Supply Voltage		DC 11.4 ~ 12.6V
Requirement		210 mA Max
Output Voltage	“H”	2.5 V or More
	“L” ※1	0.5 V Max
Maximum Output Current		20 mA MAX
Rise & Fall Time		200 ns Max
Maximum Frequency Response		68.3 kHz

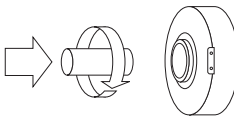
※1)  
at Maximum Output Current

### Electrical Connections

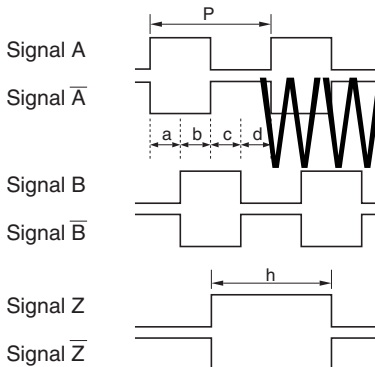
Pin #	A	B
1	-	-
2	0V Common	+12V
3	-	-
4	F0	F0
5	F2	F2
6	F3	F3
7	F1	F1
8	Signal Z	Signal Z
9	Signal B	Signal B
10	Signal A	Signal A

### Wave Form.

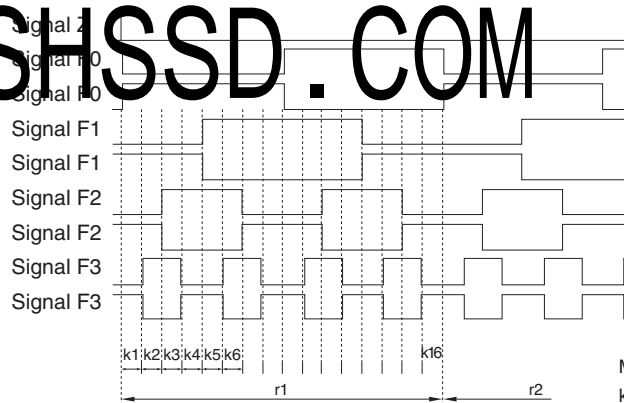
CW → Rotating Toward Clockwise Viewed from an Arrow



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



When UVW phases output are 4 poles at 120°.



Mechanical Angular  
k1 ~ k16 1.875° ± 0.5°  
r1, r2 30 ± 2°

Position Relation between F0 and Z phases  
Mechanical Angular 0° ± 0.9°

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

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

Wave Ratio (Duty); 50 ± 25 (%)

### Mechanical Spec.

Starting Torque		49X10 <sup>-2</sup> N · m Max
Shaft Loading	Thrust axial	29.4N
	Radial	49N
Moment of Inertia		1.5X10 <sup>-3</sup> kg · m <sup>2</sup>
Maximum RPM		500r/min
Net Weight (W/O Cable)		2kg Max

### Environmental Spec.

Operating Temperature	-10°C ~ +70°C
Storage Temperature	-20°C ~ +85°C
Humidity	RH 85% Max No Condensation
Vibration	50 Hz / 1.5mm 2 h
Shock	196m/s <sup>2</sup> , 15ms X, Y, Z Each 3 times
Degree of Protection	IP50