

# SHAFT TYPE

# NOC-S<sub>Model</sub>



## Mechanism for The Shaft Load Resistance (for General Use)

- Standard Low Cost Versions of 10~2500 P/R and 5000 P/R.

### Model

**NOC-S**       - **2 M**    -          -          -    **0 0**

Style S: Shaft	10	10P/R	600	600P/R
	20	20P/R	1000	1000P/R
	30	30P/R	1024	1024P/R
	40	40P/R	1250	1250P/R
	50	50P/R	1800	1800P/R
	60	60P/R	2000	2000P/R
	100	100P/R	2048	2048P/R
	200	200P/R	2500	2500P/R
	250	250P/R	3600	3600P/R
	300	300P/R	4096	4096P/R
360	360P/R	5000	5000P/R	
500	500P/R			

**Resolution**

**Outer diameter shaft**  
: Option  
8 : 8  
9525 : 9.525  
10 : 10

**Cable Length**  
050 : 500mm (Standard)  
100 : 1000mm  
300 : 3000mm

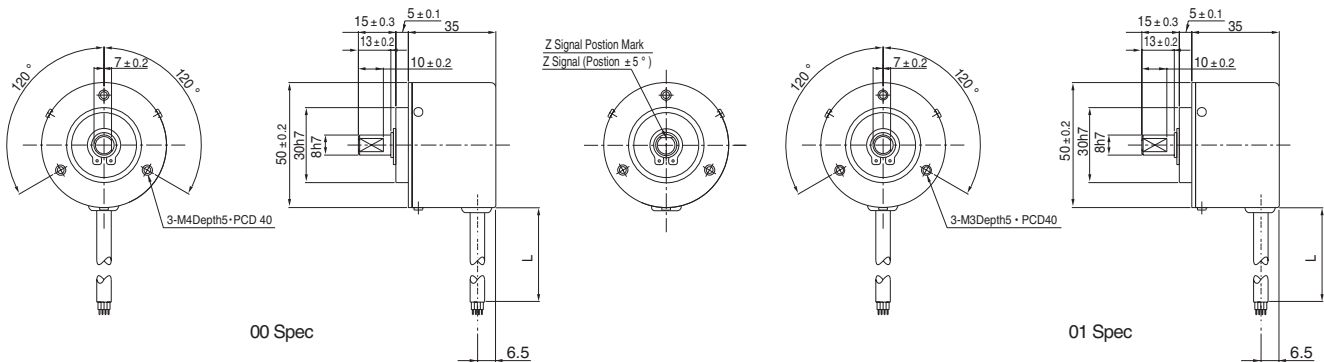
**Output Mode**  
No Indication : Voltage Output  
C : Open Collector Output  
HC : Open Collector Output / High Voltage  
HCP : PNP Mode Open Collector Output / High Voltage  
HT : Push-Pull Output / High Voltage  
D : Line Driver Output Standard C-MOS  
HT : Push-Pull Output / Wide Voltage

**Signals**  
2: ABS<sup>o</sup> Phase Difference + Zero Signal

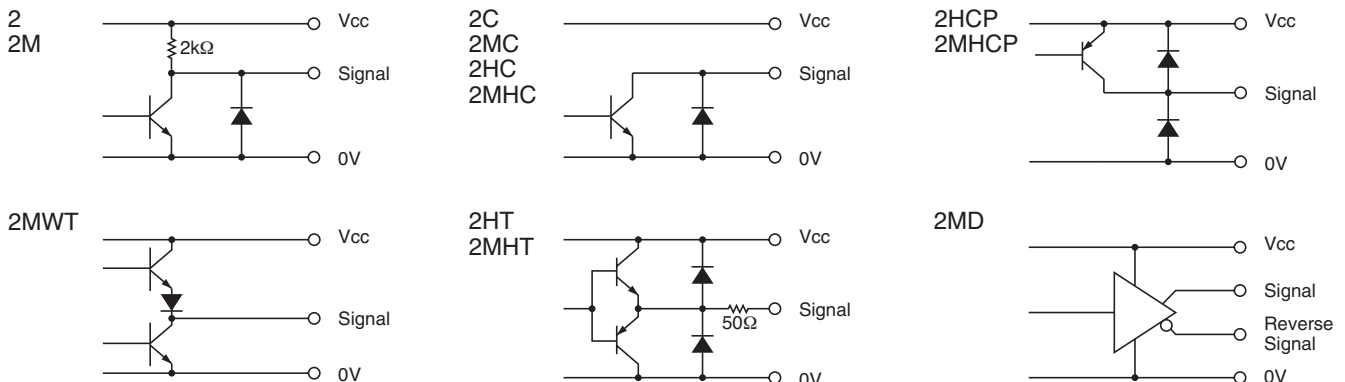
**No Indication** : Other than D output  
**No Indication** : D output with LS  
**C** : D output with C-MOS

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### External Dimension



### Circuit of Output Signal



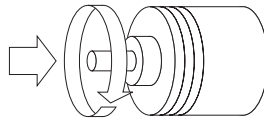
**Electrical Spec.**

※1) at Maximum Output Current ※2) Maximum Source Current

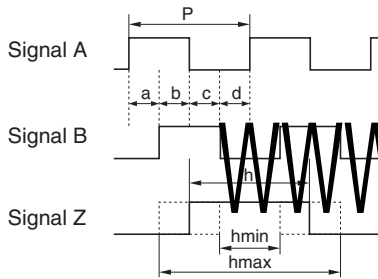
TYPE		2 • 2M	2C•2MC	2HC•2MHC	2HCP•2MHCP	2HT•2MHT	2MD	2MWT
Supply Voltage		DC4.5 ~ 13.2 V			DC10.8 ~ 26.4 V		DC4.5~5.5V (C-MOS)	DC 4.75~30V
Requirement		90 mA Max	70 mA Max		100 mA Max	90 mA Max	70 mA Max (C-MOS)	60 mA Max
Output Voltage	“H”	Within -1 Power Volt	_____		Within -1 <sup>2</sup> Power Volt	Within -3 Power Volt	2.5 V or More	Within -2.5 Power Volt
	“L” ※1	0.5 V Max			_____	3 V Max	0.5 V Max	0.4 V Max
Maximum Output Current		20 mA MAX				40 mA MAX	20 mA MAX	30 mA MAX
Rise & Fall Time		1 μs Max					200 ns Max	3 μs Max
Maximum Frequency Response		200 kHz			50 kHz	200 kHz		100 kHz
Withstanding Voltage of Output Tr.		_____	50 V MAX.		_____			

**Wave Form.**

CW → Rotating Toward Clockwise Viewed from an Arrow

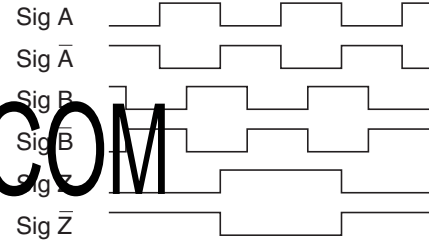


Rising point of A-Signal is always at one point while Z-Signal is at H-Level in CW.



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

Wave Ratio (Duty); 50 ± 25 (%)



**Electrical Connections**

2M	2HCP	Color of Lead Wire	Description
2C	2MHCP	Red	Power Source
2MC	2HT	Black	0V Common
2HC	2MHT	Green or Blue	Signal A
2MHC	2MWT	White	Signal B
		Yellow	Signal Z
		Shielding Braid	NC

2MD	Color of Lead Wire	Description	Color of Lead Wire	Description
	Red	Power Source	White	Signal B
	Black	0V Common	Gray	Signal B
	Green	Signal A	Yellow	Signal Z
	Blue	Signal A	Orange	Signal Z
	Shielding Braid	NC		

**Mechanical Spec.**

Starting Torque		9.8×10 <sup>-3</sup> N • m Max
Angular Acceleration		1×10 <sup>5</sup> rad/s <sup>2</sup>
Shaft Loading	Thrust axial	49N
	Radial	78.4N
Moment of Inertia		3×10 <sup>-6</sup> kg • m <sup>2</sup>
Maximum RPM		5000r/min
Net Weight		200g Max

**Environmental Spec.**

Operating Temperature	-10°C ~ +70°C
Storage Temperature	-30°C ~ +85°C
Humidity	RH 85% Max No Condensation
Vibration	10~55 Hz / 1.5mm 2 h
Shock	980m/s <sup>2</sup> , 11ms X, Y, Z Each 3 times
Degree of Protection	IP50