

SHAFT TYPE

NOC-S_{Model}



Mechanism for The Shaft Load Resistance (for General Use)

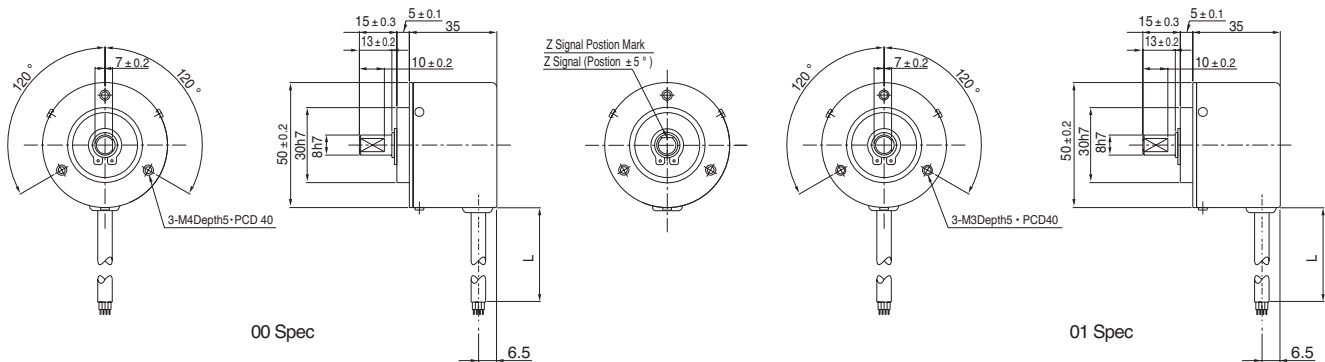
- Standard Low Cost Versions of 10~2500 P/R and 5000 P/R.

Model

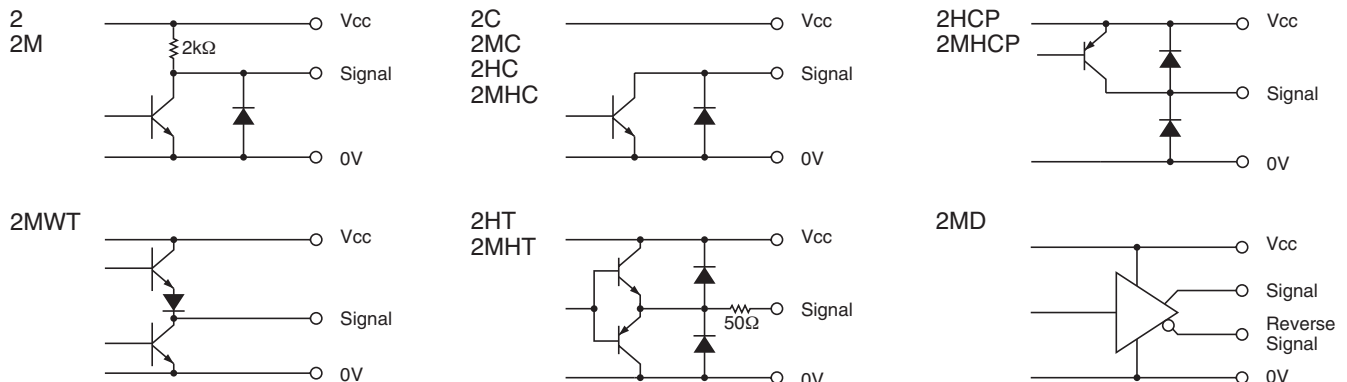
NOC-S **- 2 M** **0 0**

Style	Resolution				Output Mode	Outer diameter shaft : Option 8 : 8 9.525 : 9.525 10 : 10	Cable Length 050 : 500mm (Standard) 100 : 1000mm 300 : 3000mm	No Indication : Other than D output No Indication : D output with LS C : D output with C-MOS
	10	20	30	40				
S: Shaft	10P/R	20P/R	30P/R	40P/R	No Indication : Voltage Output			
	600	1000	1024	1250	C : Open Collector Output			
	600P/R	1000P/R	1024P/R	1250P/R	HC : Open Collector Output / High Voltage			
	50	60	100	200	HCP : PNP Mode Open Collector Output / High Voltage			
	50P/R	60P/R	100P/R	200P/R	HT : Push-Pull Output / High Voltage			
	1800	2000	2048	2500	D : Line Driver Output Standard C-MOS			
	1800P/R	2000P/R	2048P/R	2500P/R	WT : Push-Pull Output / Wide Voltage			
	2500	3600	4096	3600	Signals — 2M : AB90° Phase Difference + Zero Signal			
	250P/R	360P/R	4096P/R	3600P/R				
	300	360	5000	5000				
	300P/R	360P/R	5000P/R	5000P/R				
	500							
	500P/R							

External Dimension



Circuit of Output Signal



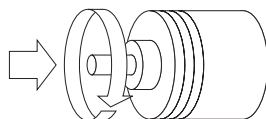
Electrical Spec.

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

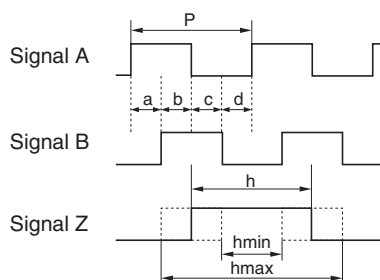
TYPE		2•2M	2C•2MC	2HC•2MHC	2HCP•2MHCP	2HT•2MHT	2MD	2MWT
Supply Voltage		DC4.5 ~ 13.2 V			DC10.8 ~ 26.4 V		DC4.5~5.5V (C-MOS)	DC 4.75~30V
Requirement		90 mA Max	70 mA Max		100 mA Max	90 mA Max	70 mA Max (C-MOS)	60 mA Max
Output Voltage	“H”	Within -1 Power Volt	_____		Within -1 ² Power Volt	Within -3 Power 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



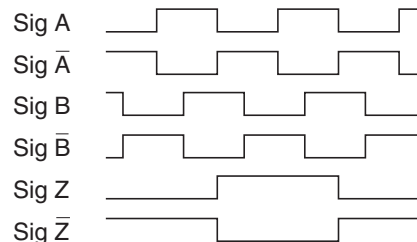
Rising point of A-Signal is always at one point while Z-Signal is at H-Level in CW.



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

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

Wave Ratio (Duty); 50 ± 25 (%)



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 ⁻³ N • m Max
Angular Acceleration		1×10 ⁵ rad/s ²
Shaft Loading	Thrust axial	49N
	Radial	78.4N
Moment of Inertia		3×10 ⁻⁶ kg • m ²
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 ² , 11ms X, Y, Z Each 3 times
Degree of Protection	IP50