

HOLLOW TYPE

NOC-H Model



Standard Model of 50mm Diameter Encoder

•Standard Versions of 10~5000 P/R.



Model

NOC-H [ ] -2M [ ] - [ ] - [ ] - [ ] - [ ] 00E

**Style Resolution**  
H : Hollow 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		

**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  
WT : Push-Pull Output / Wide Voltage(10~2500P/R)

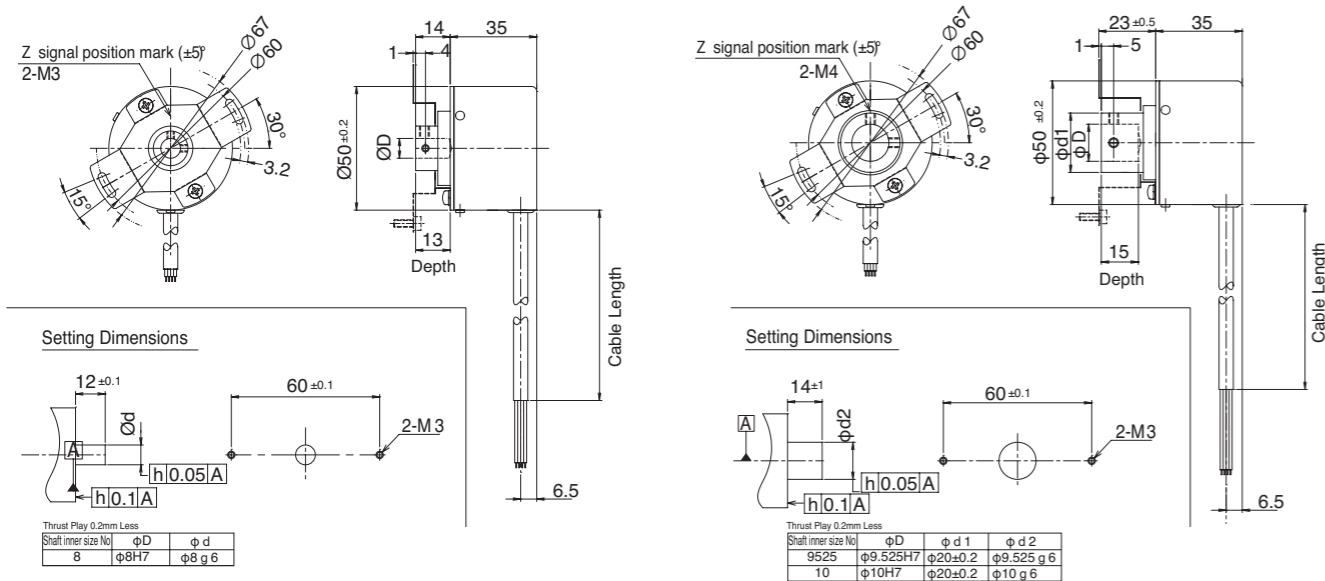
**Hollow Shaft Diameter**  
8 : φ 8  
\*9525 : φ 9.525  
10 : φ 10  
\* Option

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

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

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

External Dimension



Electrical Connections

Model	Color	Signal
2M	Red	Power Supply(Vcc)
2MC	Black	0V
2MHC	Green or Blue	Signal A
2MHCP	White	Signal B
2MHT	Blue	Signal A
2MWT	Yellow	Signal B
	Shield	Signal Z
		F·G

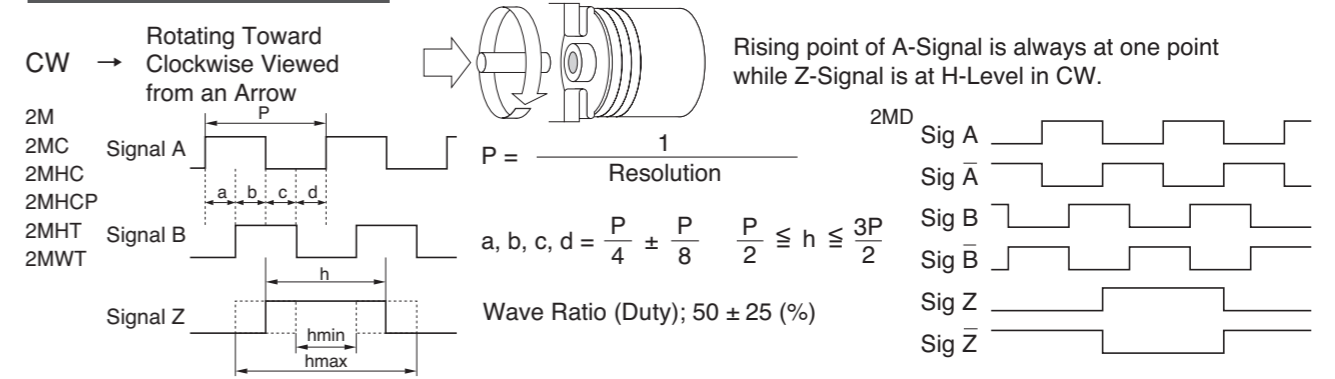
Model	Color	Signal	Color	Signal
2MD	Red	Power Supply(Vcc)	White	Signal B
	Black	0V	Gray	Signal B
	Green	Signal A	Yellow	Signal Z
	Blue	Signal A	Orange	Signal Z
	Shield	F·G		

Electrical Spec

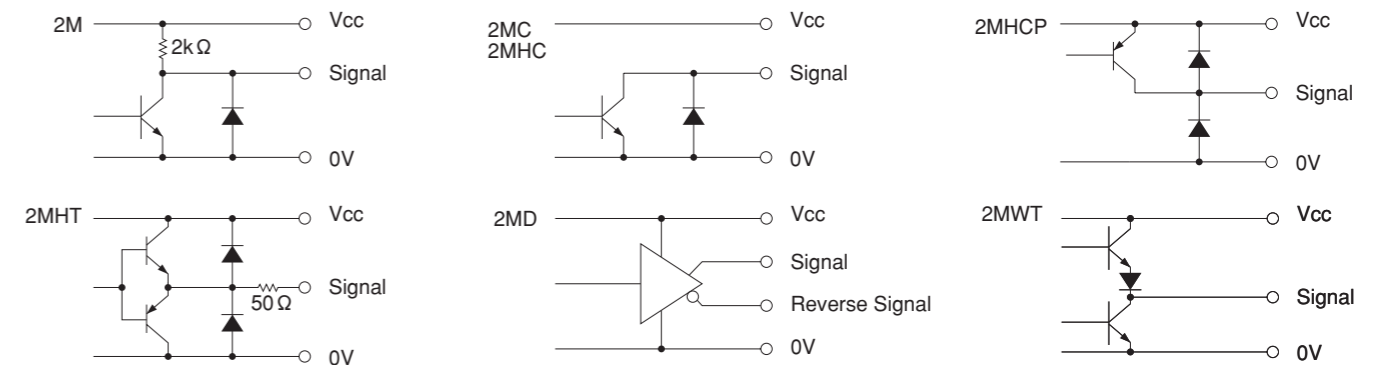
※1) at Maximum Sink Current    ※2) Maximum Source Current

TYPE	2M	2MC	2MHC	2MHCP	2MHT	2MD	2MWT
Power Supply(Vcc)	DC4.5~13.2 V		DC10.8 ~ 26.4 V			DC4.5~5.5V (C-MOS)	DC 4.75~30V
Current Consumption	90 mA Max	70 mA Max		100 mAMax	90 mA Max	70 mA Max (C-MOS)	60 mA Max
Output Voltage	"H"	Vcc-1V Min	Vcc-1V Min ※2		Vcc-3V Min	2.5 V Min	Vcc-2.5V Min
	"L" ※1	0.5 V Max		3 V Max		0.5 V Max	0.4 V Max
Maximum Sink Current	20 mA				40 mA	20 mA	30 mA
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



Output Circuit



Mechanical Spec

Starting Torque	9.8x10 <sup>-4</sup> N · m Max
Angular Acceleration	1x10 <sup>5</sup> rad/s <sup>2</sup>
Shaft Loading	Thrust 49N
	Radial 78.4N
Moment of Inertia	3x10 <sup>-6</sup> kg · m <sup>2</sup>
Maximum Permissible Speed	5000min <sup>-1</sup>
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 X,Y,Z Each 2h
Shock	980m/s <sup>2</sup> ,11ms X, Y, Z Each 3 times
Ingress Protection	IP50