

HOLLOW TYPE

NOC-HP Model



Heavy Duty Model 50mm Diameter Encoder (IP65)
•Standard Versions of 10~10000 P/R, for High Accurate Application.



Model NOC-HP -2M -00E

Style	Resolution	Output Mode	Hollow Shaft Diameter	Cable Length	Complying with RoHS
H:Hollow Shaft P:Dust-Proof & Water-Proof					
10	10P/R	600	600P/R	050 : 500mm (Standard)	No Indication : Other than D output
20	20P/R	1000	1000P/R	100 : 1000mm	No Indication : D output with LS
30	30P/R	1024	1024P/R	300 : 3000mm	C : D output with C-MOS
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	10000	10000P/R		

8 : φ8
*9525 : φ9.525
10 : φ10
* Option

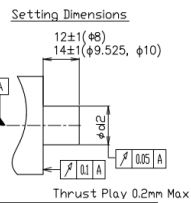
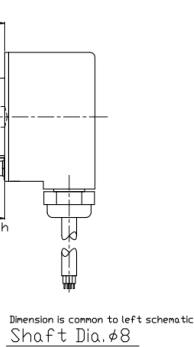
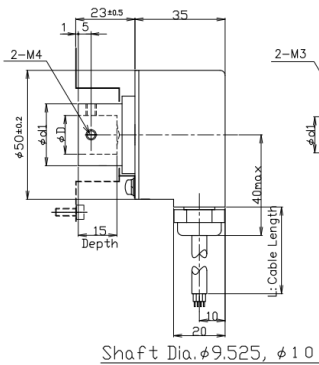
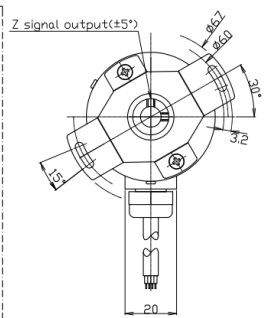
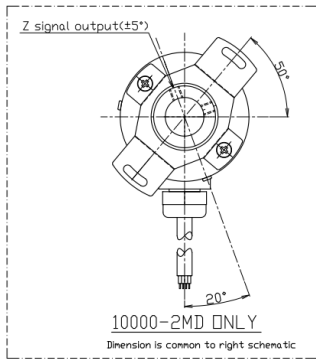
No Indication: Voltage Output
C : Open Collector Output
HC : Open Collector Output / High Voltage
HCP : PNP Mode Open Collector Output / High Voltage
HT : Push-Pull Output / High Voltage
D : Line Driver Output
WT : Push-Pull Output / Wide Voltage(10~2500P/R)

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

*10000 P/R (Line Driver Only)

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External Dimension



Shaft	φ0	φ1	φ2
8	φ8H7	φ1.4±0.2	φ8g6
9.525	φ9.525H7	φ2.0±0.2	φ9.525g6
10	φ10H7	φ2.0±0.2	φ10g6

Electrical Connections

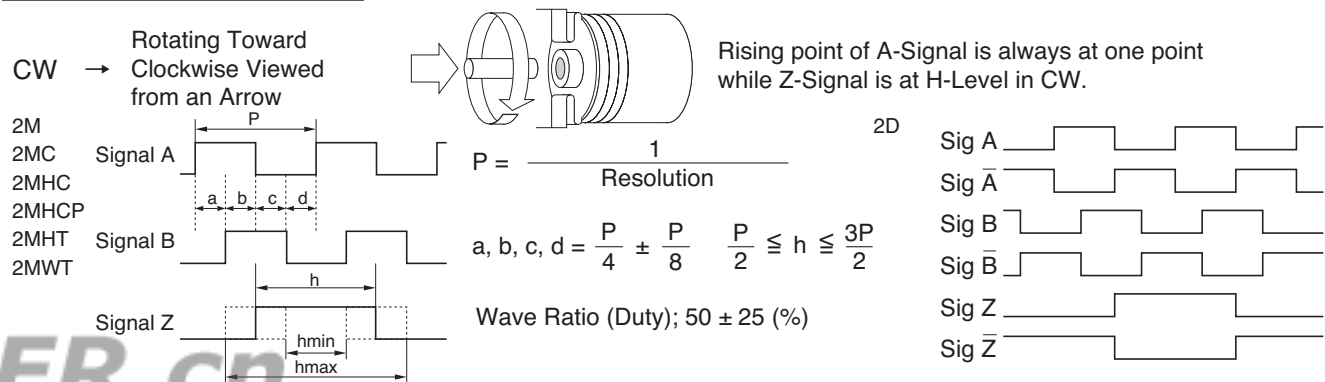
2M	Color	Signal
2MC	Red	Power Supply(Vcc)
2MHC	Black	0V
2MHT	Green or Blue	Signal A
2MWT	White	Signal B
	Yellow	Signal Z
	Shield	F·G

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		

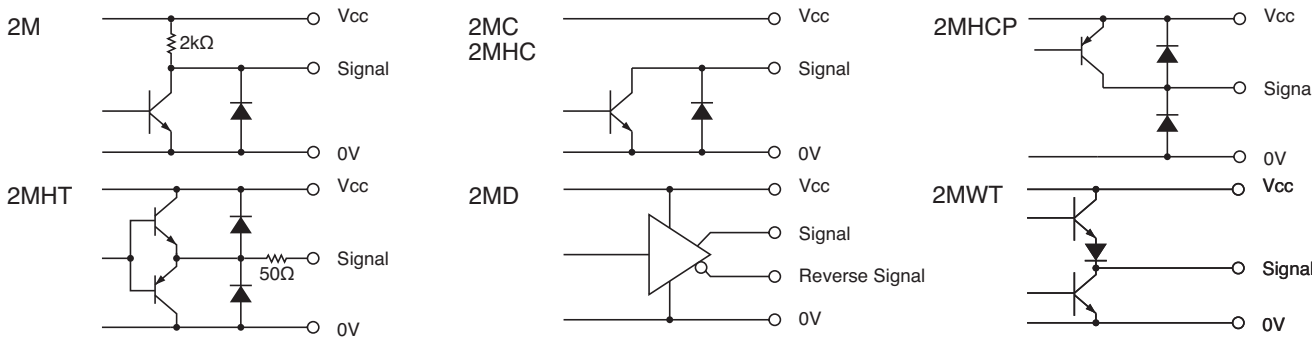
Electrical Spec

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 mA Max	90 mA Max	70 mA Max (C-MOS)	60 mA Max
Output Voltage	"H"	Vcc-1V Min			Vcc-1V Min	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 (~5000P/R)	1 MHz (10000P/R)	100 kHz	
Withstanding Voltage of Output Tr.		50 V Max						

Wave Form



Output Circuit



Mechanical Spec

Starting Torque	9.8×10 ⁻³ N · m Max
Angular Acceleration	1×10 ⁵ rad/s ²
Shaft Loading	Thrust 49N
	Radial 78.4N
Moment of Inertia	3×10 ⁻⁶ kg · m ²
Maximum Permissible Speed	Instantaneous : 5000min ⁻¹ Continuous : 3000min ⁻¹
Net Weight(Without Cable)	250g 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 ² ,11ms X, Y, Z Each 3 times
Ingress Protection	IP65