

SHAFT TYPE

NE Model



Super Heavy Duty Model

- Durable for Heavy Shaft Loading.
- Up to 5000 P/R.



Model

NE- [] -2MD- [] - [] - [] - [] E

Resolution

002	20P/R	1024	1024P/R
005	50P/R	1250	1250P/R
006	60P/R	18	1800P/R
01	100P/R	20	2000P/R
02	200P/R	2048	2048P/R
03	300P/R	25	2500P/R
036	360P/R	36	3600P/R
05	500P/R	4096	4096P/R
06	600P/R	50	5000P/R
10	1000P/R		

Complying with RoHS

- 00 : 5000min⁻¹Spec, IP54, Without additional Connector
 - 01 : 5000min⁻¹Spec, IP54, With additional Connector*
 - 04 : 9000min⁻¹Spec, IP54, With additional Connector*
 - 05 : 9000min⁻¹Spec, IP54, Without additional Connector
 - 08 : 10000min⁻¹Spec, IP66, Without additional Connector
 - 09 : 10000min⁻¹Spec, IP66, With additional Connector*
- *With Connector : DMS3057-12A (DDK or its equivalent)

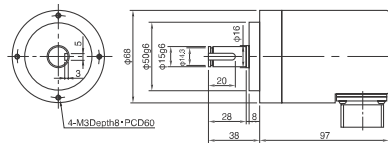
- 000 : No Flange
- 068 : With 68mm SQ Flange

- Flange Style
- 0 : No Flange
 - F : With Flange

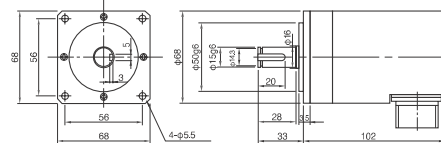
Output Mode — D : Line Driver Output

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

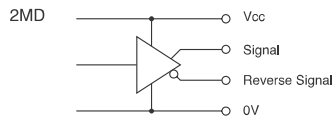
External Dimension



F : With Flange



Output Circuit



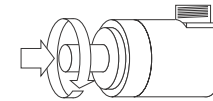
Electrical Spec

TYPE		2MD
Power Supply(Vcc)		DC4.75~5.25V
Current Consumption		150 mA Max
Output Voltage	"H"	2.4 V Min
	"L" *1	0.5 V Max
Maximum Sink Current		40 mA
Rise & Fall Time		200 ns Max
Maximum Frequency Response		200 kHz

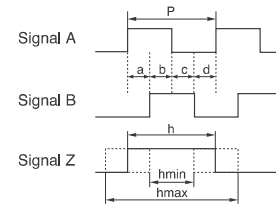
*1) at Maximum Sink Current

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.



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

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

Wave Ratio (Duty); 50 ± 25 (%)

*2MD has reverse signal of Signal A,B,Z.

Electrical Connections

Receptacle DDK MS3102A20-29P

Pin#	Signal	Pin#	Signal
A	Signal A	K	0V
B	Signal Z	N	Signal Ā
C	Signal B	P	Signal Z̄
E	F,G	R	Signal B̄
H	Power Supply(Vcc)		

Mechanical Spec

() Option

Starting Torque	9.8x10 ⁻² N · m Max
Angular Acceleration	2x10 ⁵ rad/s ²
Shaft Loading	Thrust 49N
	Radial 98N
Moment of Inertia	1.7x10 ⁻⁵ kg · m ²
Maximum Permissible Speed	5000min ⁻¹ (9000min ⁻¹ , 10000min ⁻¹)
Net Weight	1kg Max(Without Flange)

Environmental Spec

() Option

Operating Temperature	-5°C~+60°C
Storage Temperature	-30°C~+80°C
Humidity	RH 85% Max No Condensation
Vibration	10~55 Hz / 1.5mm X, Y, Z Each 2h
Shock	490m/s ² , 11ms X, Y, Z Each 3 times
Ingress Protection	IP54(IP66) Plug in