SHAFT TYPE

NE Model

Super Heavy Duty Model

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

CE EN 50081-2 EN 50082-2

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^{-1}Spec, IP54, Without additional Connector
- 01 : 5000min^{-1}Spec, IP54, With additional Connector※
- 04 : 9000min^{-1}Spec, IP54, With additional Connector※
- 05 : 9000min^{-1}Spec, IP54, Without additional Connector
- 08 : 10000min^{-1}Spec, IP66, Without additional Connector
- 09 : 10000min^{-1}Spec, IP66, With additional Connector※

※with Connector : D/MS3057—12A (DDK or its equivalent)

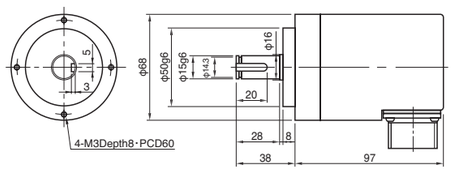
- 000 : No Flange
- 068 : With 68mm SQ Flange

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

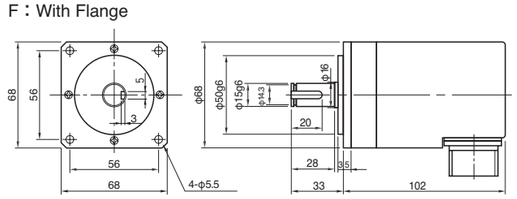
Output Mode — D : Line Driver Output

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

External Dimension

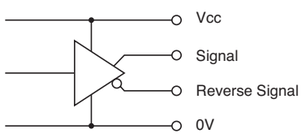


F : With Flange



Output Circuit

2MD



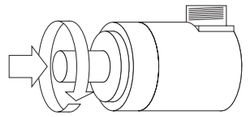
Electrical Spec

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

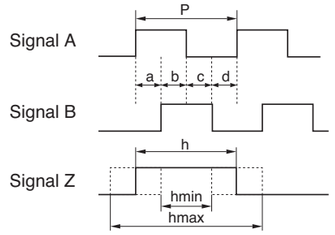
※1) at Maximum Sink Current

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.



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

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

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 $\overline{A}$
C	Signal B	P	Signal $\overline{Z}$
E	F.G	R	Signal $\overline{B}$
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℃～+60℃
Storage Temperature	– 30℃～+80℃
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