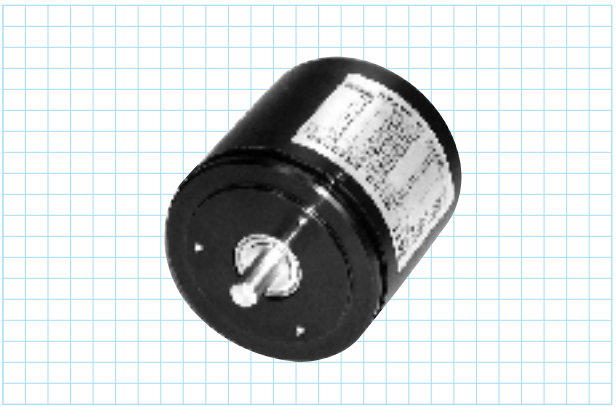
MXS-series

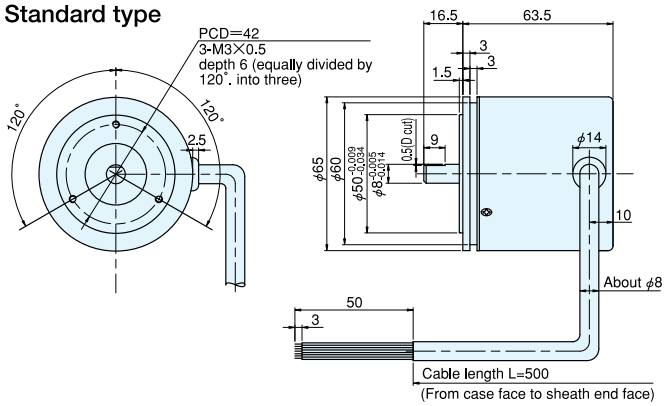
[High-resolution Multiple-rotation
(64 rotations max) Absolute Type Encoder]

- High-reliability operation without internal battery is possible. (Batteryless)
- Permitting a total count of 2^{18} max. high-resolution
- O.D. ϕ65×63.5
- Multiple-rotation (64 rotations max.) absolute output
- Selection of gray code output without reading error or pure binary code
- Selection of side-cable, rear-cable, or connector type
- IP64 drip-proof option possible (rear-cable type)

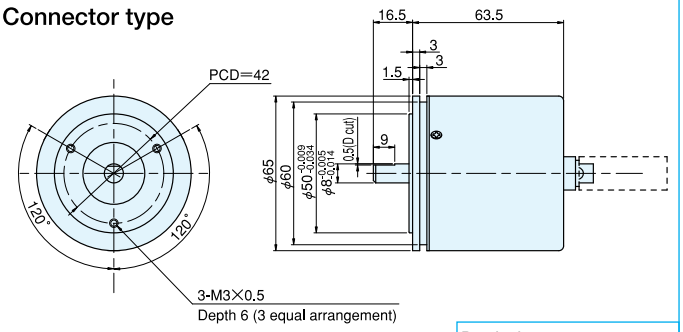


Outside dimensions

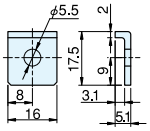
Standard type



Connector type



Detailed servo mount clamp



Specifications

Item		Type name: MXS□-○○-△□□□□-◇ (Drip-proof (W); Rotation; One rotation resolution; Output signal code ●G=gray code ●N=pure binary code; Output method No mark: voltage output C:open collector output)
Supply voltage		Voltage output:DC5V-5%～12V+10% Open collector output:C DC5V-5%～24V+15%
Current consumption		Voltage output:400mA or less Open collector output:C 200mA or less
Output code		G:gray code N:pure binary code
Output logic		No mark: positive logic; N: negative logic
Output pulse number (Standard) [Pulse number/rotation]		128 1,024 256 2,048 512 4,096
Rotation number		2・4・8・16・32・64・100(N only)
Maximum response frequency		40kbit/s
Starting torque		2mN・m (typ) Drip-proof 9.8mN・m (typ)
Shaft allowable load (electrical)	Radial	49N (5kgf)
	Thrust	29.4N (3kgf)
Working temperature/ humidity		-10˚C～70˚C/RH95%以下 (no dewing)
Storage temperature		-20˚C～80˚C
Vibration resistance		Durability 0-500Hz, double amplitude 1.52mm 2 hours each in X, Y, and Z directions
Impact resistance		Durability 11msec (about 50G) 3 times each in X, Y, and Z directions

Connection

a) Cable

Cable color	Output signal	Cable color	Output signal
Brown	2^0	Brown/White	2^{10}
Red	2^1	Red/White	2^{11}
Orange	2^2	Orange/White	2^{12}
Yellow	2^3	Yellow/White	2^{13}
Green	2^4	Green/White	2^{14}
Blue	2^5	Blue/White	2^{15}
Purple	2^6	Purple/White	2^{16}
Gray	2^7	Gray/White	2^{17}
White	2^8	Yellow/Black	Vcc
Black	2^9	White/Black	COMMON
		Shield	Cable shield

b) Connector

Pin No.	Output signal	Pin No.	Output signal
1	2^0	13	2^{12}
2	2^1	14	2^{13}
3	2^2	15	2^{14}
4	2^3	16	2^{15}
5	2^4	17	2^{16}
6	2^5	18	2^{17}
7	2^6	19	Vcc
8	2^7	20	Vcc
9	2^8	21	COMMON
10	2^9	22	COMMON
11	2^{10}	23	NC
12	2^{11}	24	Frame ground
		25	NC

Note:
1) shielding cable is non-connected in encoder.
2) Those cable which are inneccessary for signals are to be cut.
3) The form bellow indicate 64 multy-turn and 4096P/R. When resolution is not enough, it becomes NC.

Output code