

Series CM24 multi-turn absolute shaft encoder with parallel output



[click for new style part number details](#)

C	M	2	4	3	X	1	X	/	X	X	/	4	0	9	6
												<u>Resolution - bits</u>			
												<u>Output Code</u>		12 x 12 bit (24 bit)	
												3 = binary cw / ccw			
												4 = gray cw / ccw		<u>Exit</u>	
														A = Axial	
												<u>Shaft Size</u>		R = Radial	
												1 = 12 x 25 mm			
														<u>Housing</u>	
												<u>Connection Options</u>		B = Aluminum IP 65	
												0 = 2 m cable		P = S. Steel IP 65	
												3 = 5 m cable		M = Aluminum IP 66	
												9 = 26 pin		T = S. Steel IP 66	

If using the 26 pin connector, cw/ccw selectability is only possible if the resolution is less or equal to 12 x 11 bits (23 bits)

Technical Data

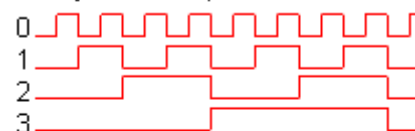
Operating temp:	- 20 ...+ 60 degrees C
	- 4 ...+ 140 degrees F
On request:	-20 ... + 80 degrees C
Power supply:	11 - 24V
Current consumption:	220 mA (max.)
Line driver output max:	50 mA per channel
Weight:	4 kg Stainless Steel
	1.5 kg Aluminum
Protection:	IP 65
Housing:	Aluminum or SS
Shaft:	Stainless Steel
Bearings:	2 x 6001 ZZ C2
Torque:	0.4 oz/in (3 N-cm)
Shaft Seal:	Nitrile Double Lip
Humidity:	Up to 98% permissible
Speed:	300 RPM max.
Shock:	10g (6msec)
Vibration:	5g (500 Hz)
Shaft load:	Radial max 10 lbs

Connection Options

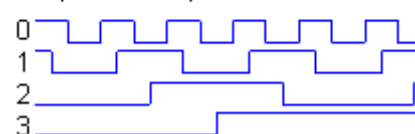
Bin / Gray	26 pole	Cable	Detail positions / turn
PS GND	1	Black	
PS 12...24 V	2	Red	
2-0 (LSB)	3	White	4096
2-1	4	Blue	2048
2-2	5	Yellow	1024
2-3	6	Green	512
2-4	7	Violet	256
2-5	8	Brown	128
2-6	9	Pink	64
2-7	10	Turquoise	32
2-8	11	Gray	16
2-9	12	Orange	8
2-10	13	Green/Red	4
2-11 (MSB)	14	Green/Blue	2
<i>Multiturn Section</i>			total # of turns
2-12 (LSB)	15	Yellow/Red	2
2-13	16	White/Red	4
2-14	17	Yellow/Blue	8
2-15	18	White/Blue	16
2-16	19	Blue/Black	32
2-17	20	Orange/Blue	64
2-18	21	White/Green	128
2-19	22	Orange/Green	256
2-20	23	Green/Black	512
2-21	24	Yellow/Violet	1024
2-22	25	Yellow/Brown	2048
2-23 (MSB)	26	White/Brown	4096
		<i>Black/Red</i>	

Output

Binary Code Output



Gray Code Output



cw / ccw

For cw, leave Black/Red disconnected

For ccw, set Black/Red wire to ground.

FOR BINARY ONLY: (For different resolution in gray code, specify when ordering)

All our multi-turn encoders are 12 x 12 bit standard. For different resolutions, leave some of the wires disconnected as follows:

Single Turn Changes: The MSB must always be wired and the LSB left unwired to adjust resolution

Multi Turn Changes: The LSB must always be wired and the MSB left unwired to adjust resolution

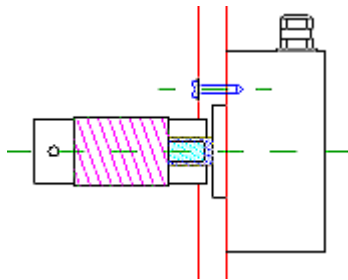
Example: If 1024 positions / turn are required with 2048 turns in total, make the following changes:

Single Turn Section: Leave pin 3 and 4 disconnected

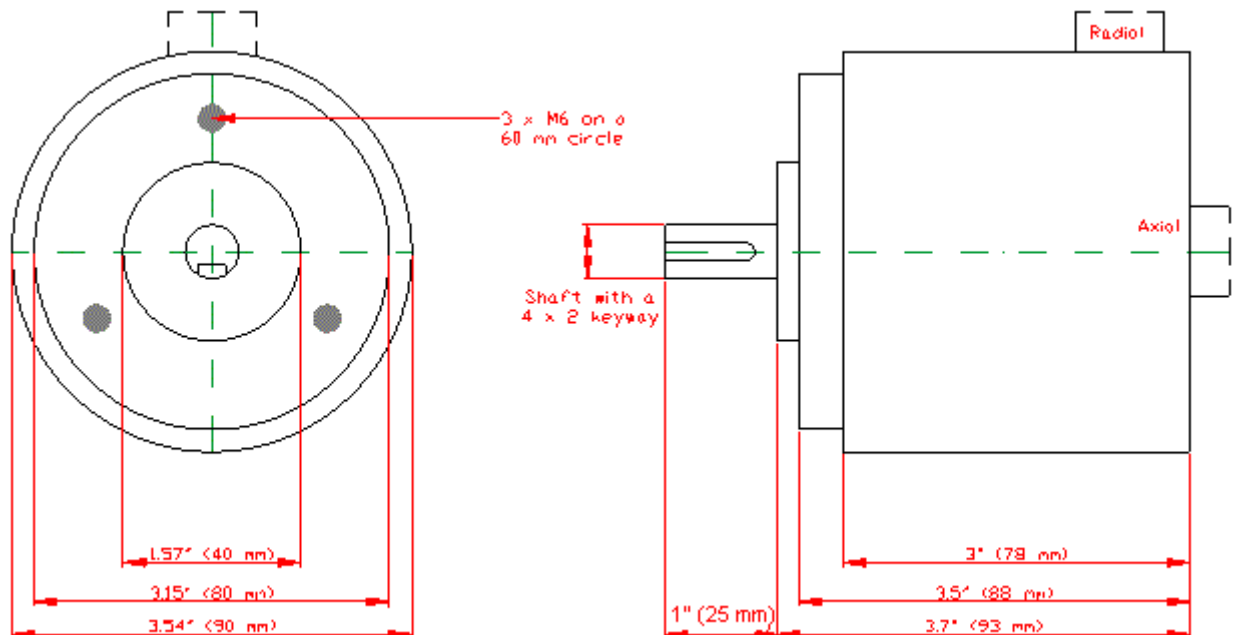
Multi Turn Section: Leave pin 26 disconnected

Mounting Instructions

To mount encoder on machine: Option 1 is to mount with 3 screws or, option 2 is to mount using synchroflange mounting brackets. Hook up the encoder with the connections as described. Make sure power supply meets specifications. Attach encoder to mounting bracket as shown. Attach shaft using a flexible coupling.



Dimensions



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