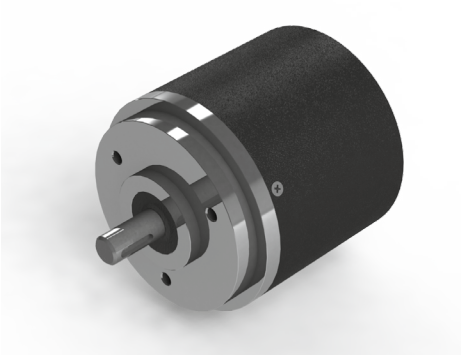


## Series CM24 multi-turn absolute shaft encoder with parallel output



<b>C</b>	<b>M</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>X</b>	<b>1</b>	<b>X</b>	/	<b>X</b>	<b>X</b>	/	<b>4</b>	<b>0</b>	<b>9</b>	<b>6</b>
											<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

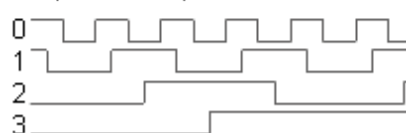
Bin / Gray	26 pole	Cable	Detail positions / turn
PS GND	1	Black	
PS 12...24 V	2	Red	
2-0 (LSB)	3	White	4096
2-1	4	Blue	2048
2-2	5	Yellow	1024
2-3	6	Green	512
2-4	7	Violet	256
2-5	8	Brown	128
2-6	9	Pink	64
2-7	10	Turquoise	32
2-8	11	Gray	16
2-9	12	Orange	8
2-10	13	Green/Red	4
2-11 (MSB)	14	Green/Blue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

### Output

#### Binary Code Output



#### Gray Code Output



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

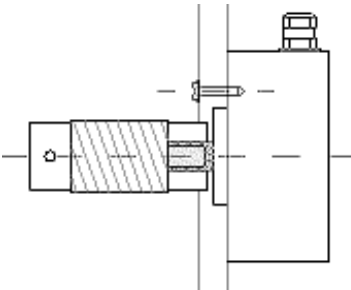
Example: If 1024 positions / turn are required with 2048 turns in total, make the following changes:

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

