

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



C M 2	4 3	X	1	X	/	X	X		0	9	6
		ı	ı	ı		ı	ı	Res	olutic	)rı -	DILS
	<u>Output</u>	<u>Code</u>	I			-	I	12 x 1	2 bit	(24	bit)
3 = b	inary cw	/ ccw	I			I	I				
4 =	gray cw	/ ccw	I			I	Ex	<u>it</u>			
			I			I	Α =	= Axial			
	<u> </u>	Shaft S	<u>size</u>	-		1	R:	= Radia	al		
	1 = 12	2 x 25 r	nm	ı		I					
				-		Ηοι	usin	g			
	Conn	ection	Opti	<u>ons</u>		B =	Alu	minum	ı IP 6	5	
		0 = 2	m ca	able		P =	S.	Steel II	P 65		
		3 = 5	m ca	able		M =	= Alu	uminun	n IP 6	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)

T = S. Steel IP 66

9 = 26 pin

<b>Technical Data</b>	Connection Options						
Operating temp:	- 20+ 60 degrees C	Bin / Gray	26 pole		Detail		
	<ul> <li>4+ 140 degrees F</li> </ul>	PS GND	1	Black	positions / turn		
On request:	-20 + 80 degrees C	PS 1224 V	2	Red			
Power supply:	11 - 24V	2-0 (LSB)	3	White	4096		
Current consumption:	220 mA (max.)	2-1	4	Blue	2048		
Line driver output max:	•	2-2	5	Yellow	1024		
Weight:	4 kg Stainless Steel	2-3	6	Green	512		
	1.5 kg Aluminum	2-4	7	Violet	256		
Protection:	IP 65	2-5	8	Brown	128		
Housing:	Aluminum or SS	2-6	9	Pink	64		
Shaft:	Stainless Steel	2-7	10	Turquoise	32		
Bearings:	2 x 6001 ZZ C2	2-8	11	Gray	16		
Torque:	0.4 oz/in (3 N-cm)	2-9	12	Orange	8		
Shaft Seal:	Nitrile Double Lip	2-10	13	Green/Red	4		
Humidity:	Up to 98% permissible	2-11 (MSB)	.14	Green/Blue	2		
Speed:	300 RPM max.	Multiturn Sec		V II (D )	total # of turns		
Shock:	10g (6msec)	2-12 (LSB)	15	Yellow/Red	2		
Vibration:	5g (500 Hz)	2-13	16	White/Red	4		
Shaft load:	Radial max 10 lbs	2-14	17	Yellow/Blue	8		
		2-15	18	White/Blue	16		
Output		2-16	19	Blue/Black	32		
Binary Code Output		2-17	20	Orange/Blue	64		
		2-18	21	White/Green	128		
1		2-19	22	Orange/Green	256		
2		2-20	23	Green/Black	512		
J		2-21	24	Yellow/Violet	1024		
Gray Code Output		2-22	25	Yellow/Brown	2048		
		2-23 (MSB)	26	White/Brown	4096		
1		cw/ccw		Black/Red			
2	For cw, leave Black/Red disconnected						
3	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:

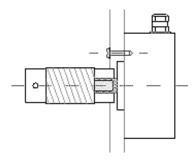
<u>Single Turn Changes:</u> The MSB must always be wired and the LSB left unwired to adjust resolution Multi Turn Changes: The LSB must always be wired and the MSB left unwired to adjust resolution

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

<u>Single Turn Section:</u> Leave pin 3 and 4 disconnected <u>Multi Turn Section:</u> 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**

