

Datasheet

- Heavy Duty Encoder with Shaft
- Shaft Encoder: Ø 115 mm
- Shaft: Ø 11 mm
- Resolution up to 12.500 ppr
- "Seawater-proof" 22 micron Anodization
- IP66



Mechanical Data

Dimension:	Ø115 mm
Weight:	~575 gr
Material: Housing	Aluminium
Shaft	Stainless Steel (AISI 303)
Cap	Aluminium
Bearing Life	>1,9 x 10 ¹⁰ revolutions at rated load
Shaft Loads	axial: max. 100 N radial: max. 100 N
Shaft Speed	max. 5.000 rpm
Starting Torque	< 0,1 Nm at 25°C
Mass Moment of Inertia	8 gcm ²
Operating Temp.	-40°C to +85°C
Storage Temp.	-40°C to +85°C
Shock	100 G / 11 ms
Vibration	10 - 2.000 Hz / 10 G
Bump	10 G / 16 ms (1.000 x 3 axis)
Humidity	98% RH without condensation
IP Rating	IP66 22 micron anodization

Electrical Data

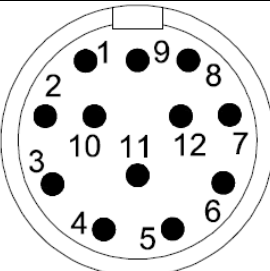
Code	Incremental	
Resolution (pulses per revolution) <small>operating temperature: -20°C to 50°C</small>	min. 1, 2, 5, 6, 8, 10, 15, 16, 20, 25, 30, 32, 36, 40, 47,50, 60, 64, 75, 90, 100, 125, 150, 180, 200, 250, 256, 300, 360, 400, 455, 500, 512, 600, 635, 720, 800, 1.000, 1.024, 1.250, 1.500, 2.000, 2.048, 2.400, 2.500, 3.000, 4.000, 4.096, 8.192, 9.000, 10.000, max. 12.500*(other options on request)	
Supply Voltage	4,5 VDC to 30 VDC (45 mA max. - no load)	
Outputs Voltage	High	V _{in} -0,6 at -10 mA
	Low	V _{in} -1,3 at -25 mA 500 mV max. at 10 mA
Load	max. 30 mA load per output channel	
Frequency Response	300 kHz max.	
Output Format	Two channel (A, B) quadrature with Index (Z) and optional complementary (A̅, B̅, Z̅) outputs	
Phase Sense	A leads B clockwise from the mounting end of the encoder	
Index	Gated with Channels A and B high	
Accuracy	± 0,8 arc-min.	
Outputs	ASIC	Push pull and differential
	OL7272	Push-pull and differential Line Driver
	26C31	Differential Line Driver 5V Output (5 V Input)
Electrical Protection	Reverse polarity and output short circuit protected	
Noise Immunity	EN 61000-6-2 (2005) EN 61000-6-3 (2007)	

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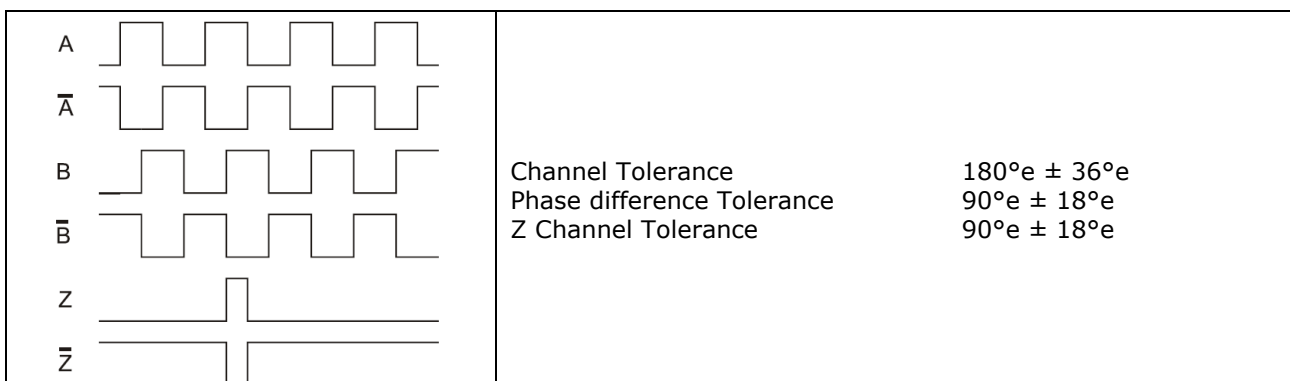
Connection Option

Cable	8 leads (0,14 mm ² , 26 AWG); twisted pairs, shielded
Connector	12-pin M23

Output Terminations

		12-pin M23			
		Standard Output		Differential Output	
		Channel		Standard Cable	
				Wire color	
Pin	Standard Output Channek	Differential Output Channel	Channel	Standard Output	Differential Output
1	GND	\bar{B}	A	pink	pink
2	NC	NC	B	green	green
3	Z	Z	Z	white	white
4	GND	\bar{Z}	V _{sup}	red	red
5	A	A	GND	blue	blue
6	GND	\bar{A}	\bar{A}	grey*	grey
7	Shield	Shield	\bar{B}	yellow*	yellow
8	B	B	\bar{Z}	brown*	brown
9	NC	NC			
10	GND	GND			
11	GND	GND			
12	V _{sup}	V _{sup}			

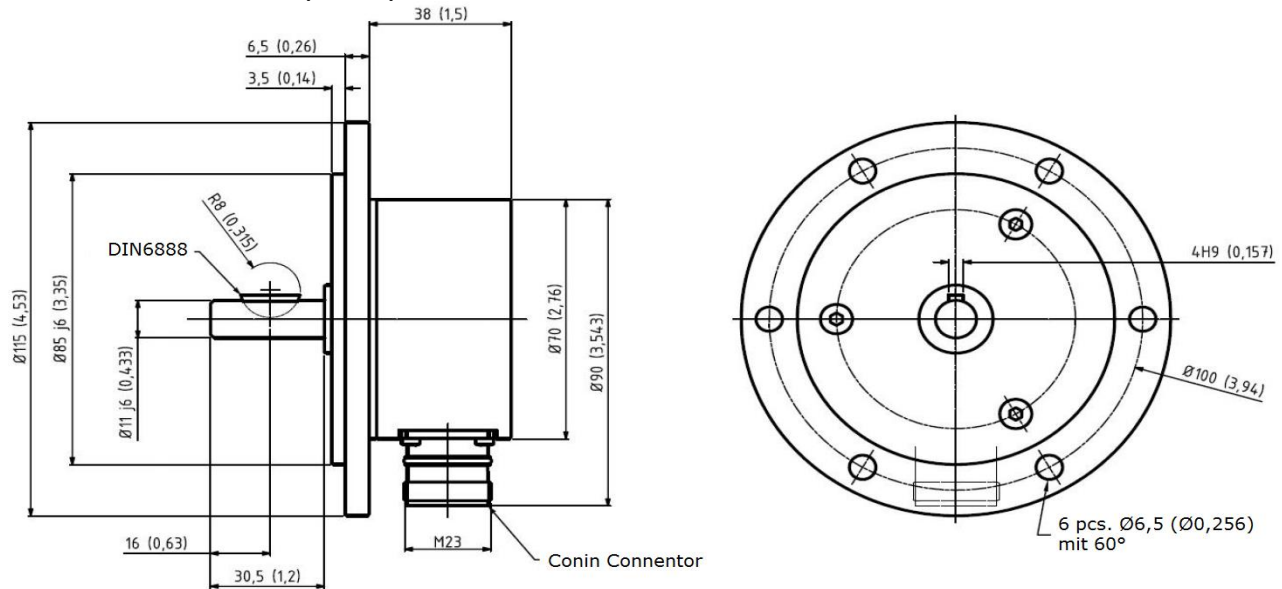
Output Waveform



Datasheet

Dimension

M23-Anschluss mm (inches)



Ordering Example

Type 2RCI - 100 - D - 12-24 - 65 - S - 00

Pulse per Revolution

see table

Output

- D = Differential
- N = Standard
- L = 26C31 Line Driver 5V/5V only
- M = OL2727 Line Driver
- NON = open collector NPN
- NOP = open collector PNP

Shaft Dia. - Shaft Length

11-30 = 11 x 30mm

IP

66 = IP66

Connector

C12 = M23 12-pin

Takeout

S = radial