

# RCI58T-FS

## Incremental Optical Encoder with Shaft

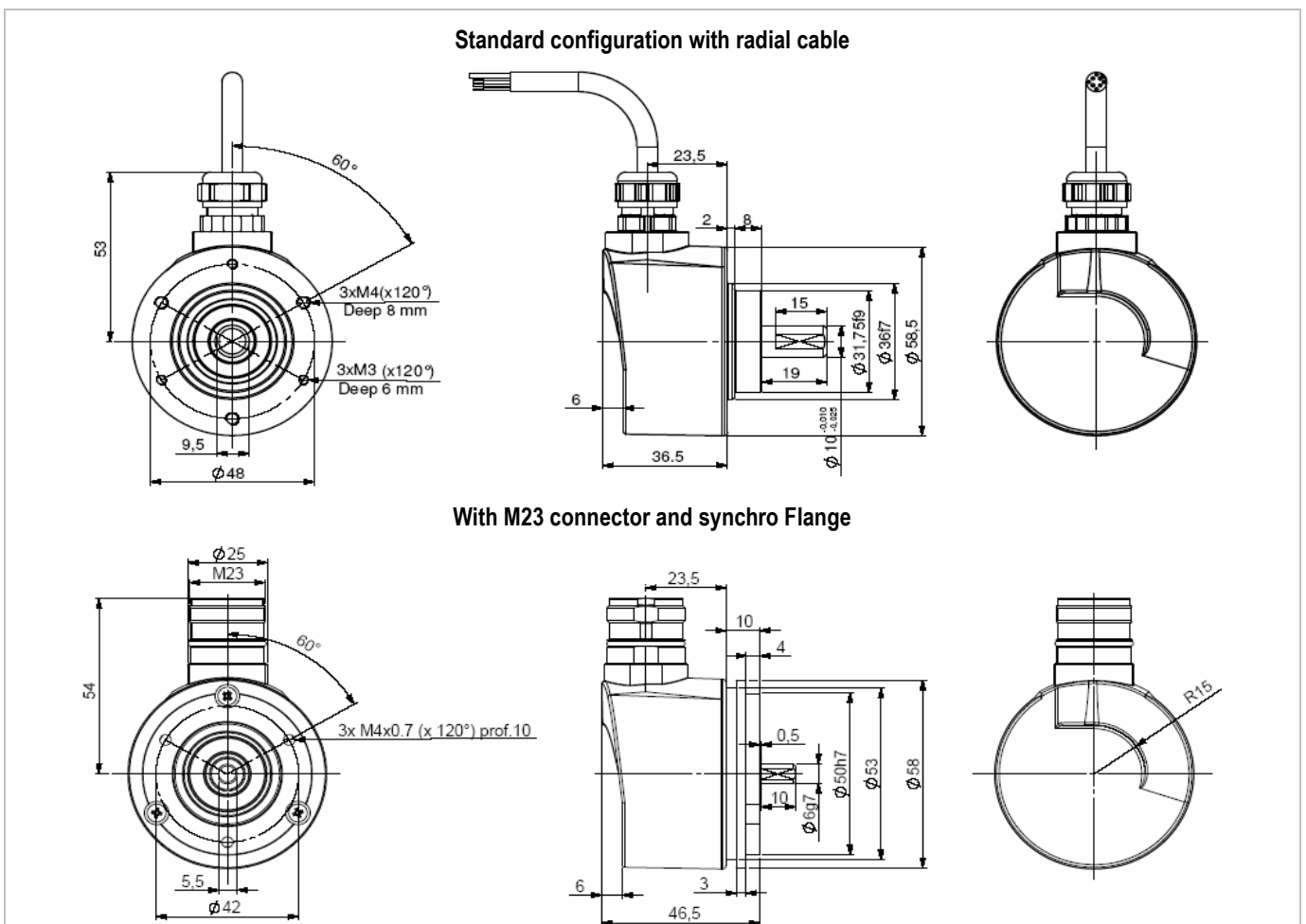


RADIO-ENERGIE optical incremental encoders are designed for accurately measuring speed and position of rotating shafts in industrial environment: machine tools, motor drives ... They use a differential optical and ratio metric principle to minimize temperature and photodiode aging effects. Their universal complementary push-pull output interface and their large supply voltage range make them very easy to connect to most of electronic control units with high noise immunity.

### Main features

- Shaft type                                      Shaft Ø 6, 8 and 10 mm
- Housing diameter                              58 mm
- Fixation    Standard flange with 6 holes (shaft Ø 10 mm), adaptable synchro flange with 3 holes
- Body - Cover                                    Aluminium – Zamac
- Shaft    Stainless steel
- Pulses per turn                                 Up to 10.000 ppr
- Output signals                                 A & B with gated Z
- Connections                                    Radial cable or M23 connector
- Operating temperature range              - 30°C / + 100°C

### Outline drawings

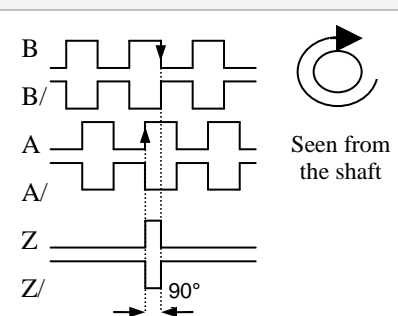


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## Electrical characteristics

Supply voltage	5 to 30 Vdc	5 Vdc
Output signals	Push-pull (T)	RS422 (S)
Max output frequency	300 kHz	
Max load current per channel	40 mA max	
EMC	According to EN 61000-6-2 and EN 50081-1	

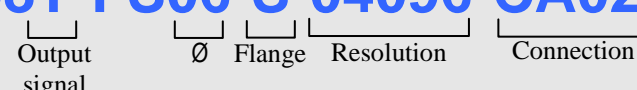
## Connections

	Cable - 8 wires	M23 – CW	M23 - CCW	Output waveforms
A	green	3	8	
A /	pink	6	1	
B	yellow	4	5	
B /	blue	7	6	
Z	grey	5	3	
Z /	red	8	4	
Vcc (+)	brown	2	2 + 12	
Gnd (-)	white	1	10 + 11	
Ground case	General shielding	Connector body	Connector body	

## Mechanical characteristics

- Max continuous speed 9 000 min<sup>-1</sup>
- Max permissible speed 12 000 min<sup>-1</sup>
- Starting torque ≤ 4.10<sup>-3</sup> N.m
- Shaft Inertia ≤ 1.10<sup>-6</sup> kg.m<sup>2</sup>
- Weight 300 gr
- Protection IP 65 (EN 60529), IP67 with synchro flange
- Max shock ≤ 500 m.s<sup>-2</sup> (during 6 ms) (EN60068-2-27)
- Max vibrations ≤ 100 m.s<sup>-2</sup> (55 ... 2 000 Hz) (EN60068-2-6)

## Ordering code

<b>RCI58T-FS06-S-04096-CA02</b>	
	
• <b>Output signals</b>	T (Push-Pull) S (RS422)
• <b>Diameters</b>	06 (6 mm), 08 (8 mm), 10 (10 mm)
• <b>Flange</b>	S (standard) Y (synchro)
• <b>Standard resolutions</b>	50 60 100 120 125 127 150 180 200 240 250 256 300 314 360 375 400 500 512 600 720 750 768 800 927 1000 1024 1200 1250 1280 1440 1500 1800 2000 2048 2400 2500 3000 3600 4000 4096 5000 6000 7200 8000 8192 10000
• <b>Connections</b>	<b>CA02:</b> Cable, two meters standard length. Other lengths from 1 to 10 meters on request <b>23C0:</b> M23 connector, 12 pins clockwise (CW) <b>23A0:</b> M23 connector, 12 pins counter-clockwise (CCW) <b>Other connections on request</b>

- We reserve the right to modify technical characteristics in the interest of technological advance -