

RCI58S/T FS

Shaft - Incremental Optical Encoder



PRECILEC 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 measurement and a ratio-metric processing of the signal for minimizing the 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

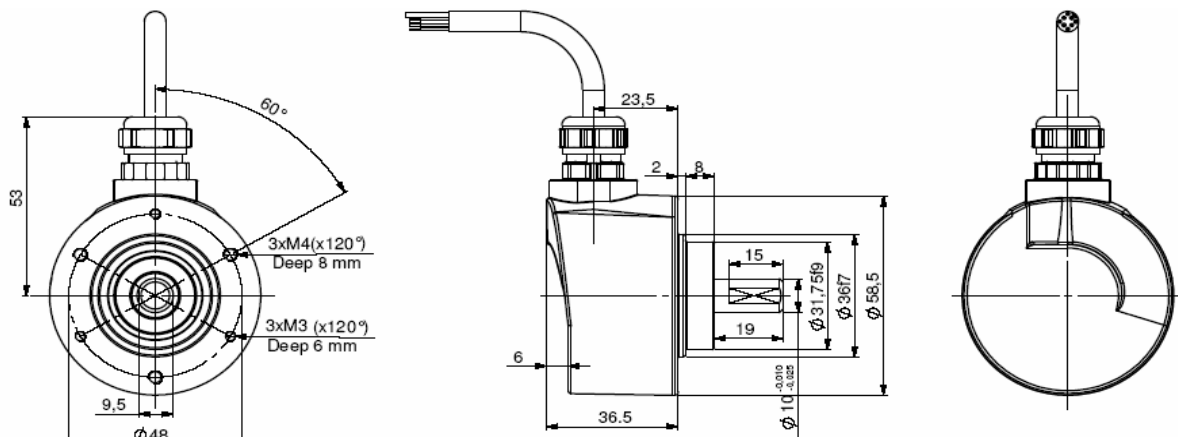
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|-------------------------------|---|
| • Shaft type | Shaft Ø 6, 8 and 10 mm |
| • Housing diameter | 58 mm |
| • Fixation | Standard flange with 6 holes (shaft Ø 10 mm), adaptable synchro flange with 3 holes |
| • Body - Cover | Aluminium - Zamac |
| • 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 |



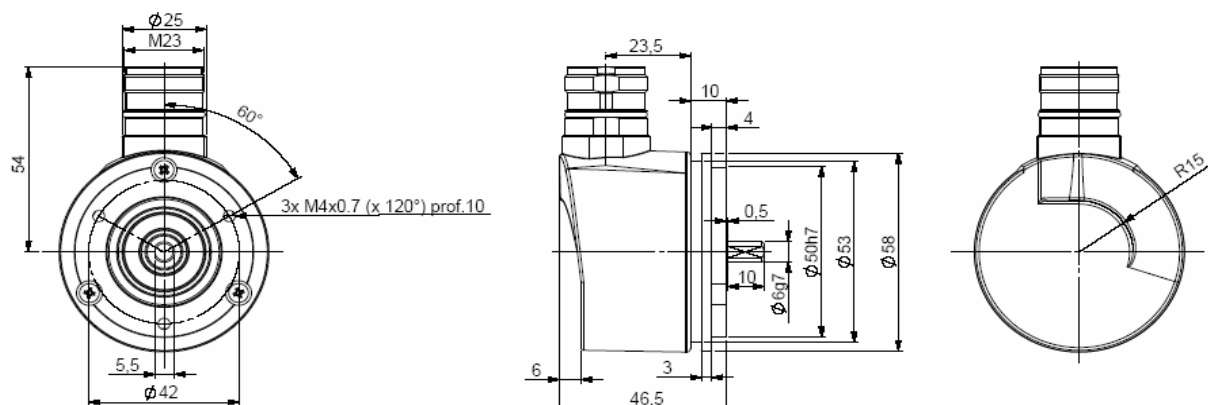
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Outline drawings

Standard configuration with radial cable



With M23 connector and synchro Flange



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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	Seen from the shaft
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⁻¹
- Max permissible speed 12 000 min⁻¹
- Starting torque $\leq 4 \cdot 10^{-3}$ N.m
- Shaft Inertia $\leq 1 \cdot 10^{-6}$ kg.m²
- Weight 300 gr
- Protection IP 65 (EN 60529), IP67 with synchro flange
- Max shock ≤ 500 m.s⁻² (during 6 ms) (EN60068-2-27)
- Max vibrations ≤ 100 m.s⁻² (55 ... 2 000 Hz) (EN60068-2-6)



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Ordering code

RCI58T-FS06-S-04096-CA02

Output signal: T (Push-Pull) S (RS422)
Ø Flange Resolution Connection

- Output signals** T (Push-Pull) S (RS422)
- Diameters** 06 (6 mm), 08 (8 mm), 10 (10 mm)
- Flange** S (standard) Y (synchro)
- Standard resolutions** 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
- Connections** CA02: Cable, two meters standard length. Other lengths from 1 to 10 meters on request
23C0: M23 connector, 12 pins clockwise (CW)
23A0: M23 connector, 12 pins counter-clockwise (CCW)
Other connections on request

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