

RCI58S/T HS

Hollow 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.

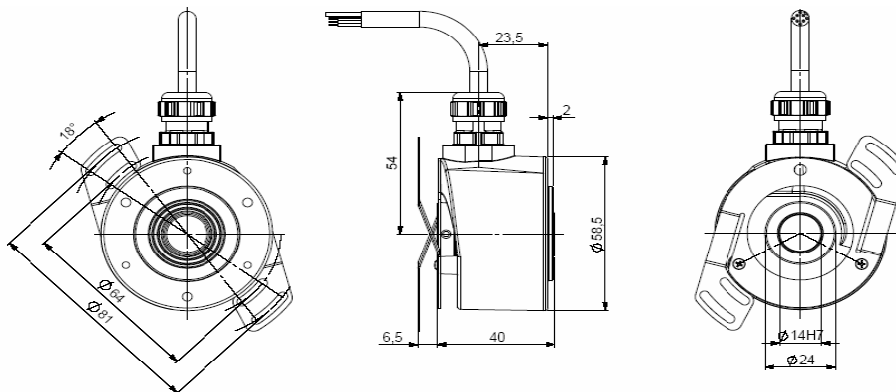


Main features

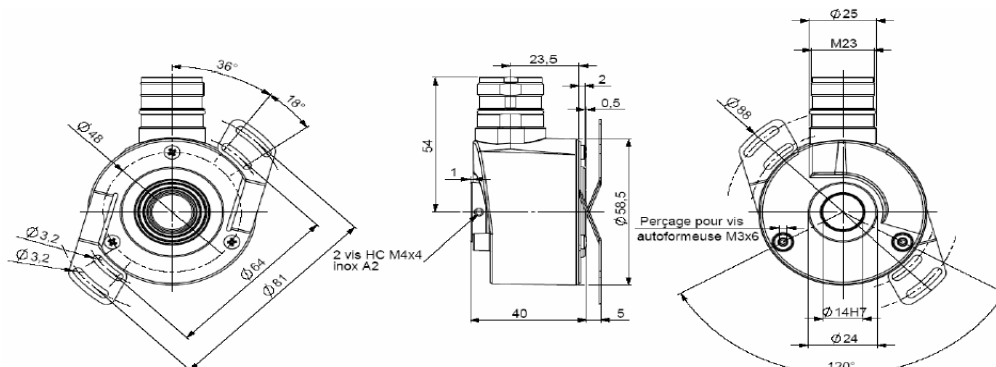
- Shaft type: Hollow shaft $\varnothing 14$ mm, and others diameters available (6, 8, 10, 12 mm) with reduction ring in aluminium
- Housing diameter: 58 mm
- Fixation: Spring plates with 2 or 3 fixation arms
- Body - Cover: Aluminium – Zamac
- Shaft: Stainless steel
- Pulses per turn: Up to 10.000 ppr
- Output signals: A & B with gated Z, and negatives
- Connections: Radial cable or M23
- Operating temperature range: $- 30^{\circ}\text{C} / + 100^{\circ}\text{C}$ (standard resolutions) / $- 20^{\circ}\text{C} / + 80^{\circ}\text{C}$ (specific resolutions)

Outline drawings

Spring plate with two fixation arms (2), with radial cable (CA02)



Spring plate with two fixations (2), with M23 connector (23C0)



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Electrical characteristics

	Standard resolutions		Specific resolutions	
	Supply voltage	5 to 30 Vdc	5 Vdc	11 to 30 Vdc
Output signals	Push-pull (T)	RS422 (S)	Push-pull (T)	RS422 (S)
Max output frequency	300 kHz		100 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	<p>Output waveforms diagram showing square waves for channels B, B/, A, A/, Z, Z/ with a 90-degree phase shift and a rotation arrow.</p>
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 6 000 rpm
- Max permissible speed 9 000 rpm
- Starting torque $\leq 6 \cdot 10^{-3}$ N.m
- Shaft Inertia $\leq 2,2 \cdot 10^{-6}$ kg.m²
- Weight 300 gr
- Protection IP 65 (EN 60529)
- 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)