

RCI90B HS

Hollow Shaft - Incremental Optical Encoder

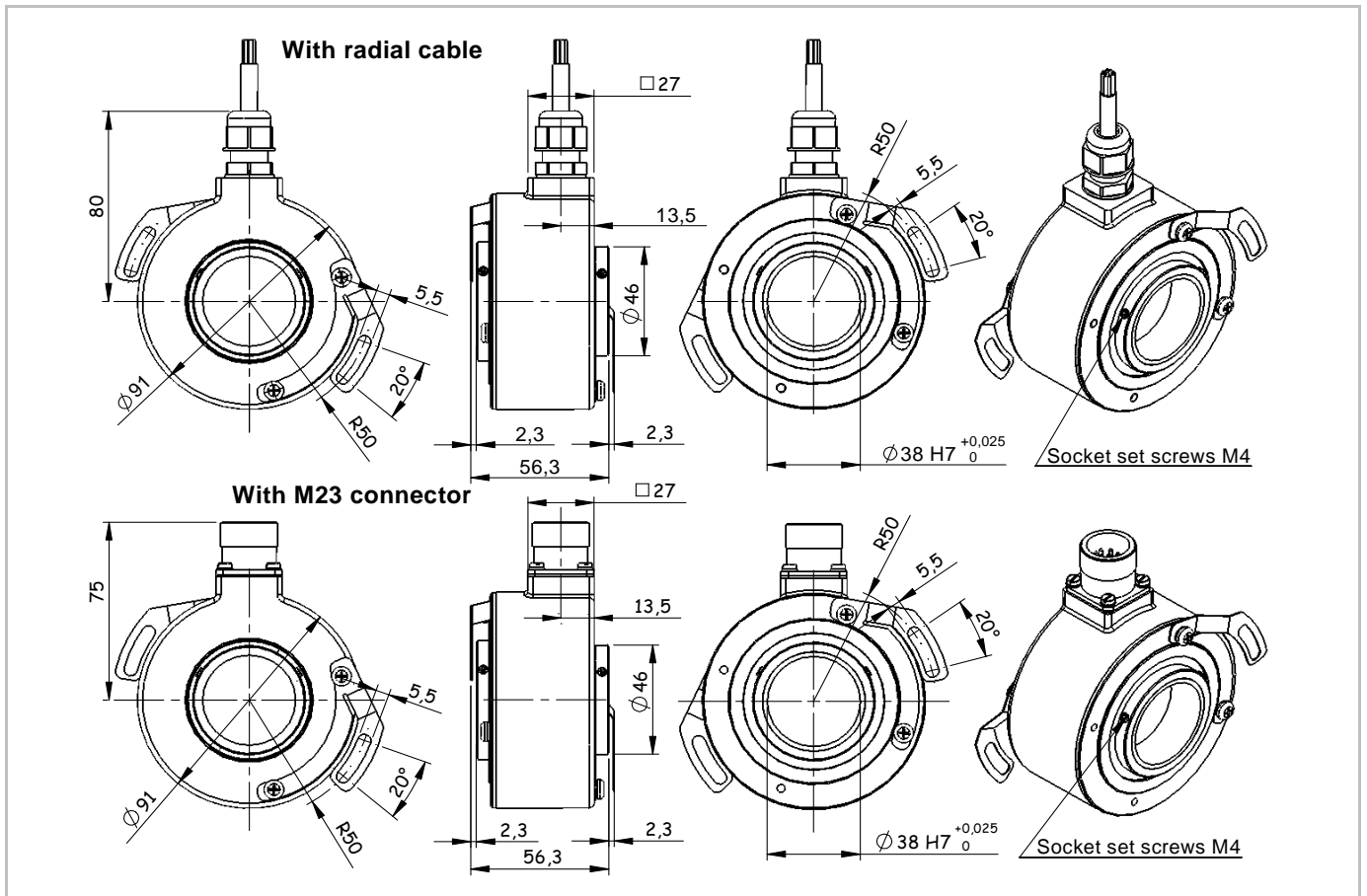


PRECILEC optical incremental encoders are designed for accurately measuring speed and position of rotating shafts in industrial environment: machine tools, motor drives ...
They use a differential optical measurement and a ratio-metric processing of the signal for minimizing the temperature and photodiode 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 $\varnothing 42$ mm, and others diameters available (20, 25, 30 mm & 1 inch) with reduction ring |
| • Housing diameter | 91 mm |
| • Fixation | 1 spring plate |
| • Body - Cover | Aluminium - Zinc alloy |
| • Shaft | Stainless steel |
| • Pulses per turn | Standard 1024, others on request |
| • Output signals | A & B with gated Z |
| • Connections | Radial cable, M23 (CW), or MS310 |
| • Operating temp. range | - 25°C / + 85°C |

Outline drawings



PRECILEC

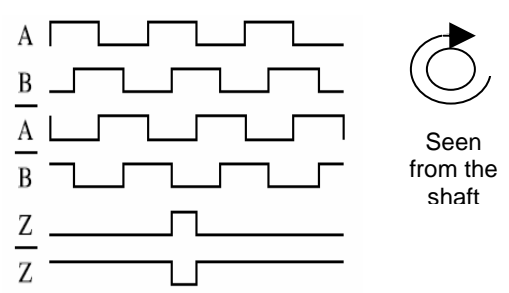
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Electrical characteristics

- Supply voltage 4,5 to 30 Vdc with reverse polarity protection
- No load supply current 100 mA under 4,5V – 25 mA under 24V
- Output signals Universal complementary push-pull (short circuit protected, 7272)
RS422 compatible with 5 V supply voltage
- Max output frequency 300 kHz
- Max load current / channel 20 mA
- EMC According to EN 61000-6-2 and EN 61000-6-4

Connections

	Cable UL 8 wires	M23 - CW	MS310	Output waveforms
A	white	5	A	 <p>Seen from the shaft</p>
A /	yellow	6	H	
B	blue	8	B	
B /	orange	1	I	
Z	green	3	C	
Z /	brown	4	J	
Vcc (+)	red	12	D	
Gnd (-)	black	10	F	
Ground case	Drain	9	G	

Mechanical characteristics

- Max continuous speed 3 000 rpm
- Starting torque ≤ 30 N.cm
- Shaft Inertia 970 gr.cm² without reducing ring
- Weight 560 gr without reducing ring
- Protection IP 65 at housing (EN 60529) and IP64 at shaft inlet
- Max shock 100 g, 6 ms (IEC 68-2-27)
- Max vibrations 10 g, 10-2000 Hz (IEC 68-2-6)

Ordering code

RCI90B-HS30-1-01024-CA01

Ø
Spring plate
Resolution
Connection

- **Diameters** 20 (20 mm), 25 (25 mm) 30 (30 mm) U4 (1 inch) with reduction ring
42 (42 mm)
- **Spring plates** 1 (spring plate with 1 fixation arm) - Additional spring plate can be fitted in the rear (see drawing)
- **Available resolutions** 1024 and other resolutions upon request
- **Connections** CA01: Cable, one meter standard length. Other lengths on request, from 0,5 to 10 meters
23C1: M23 connector, 12 pins clockwise (CW)
MILP: MS310 connector, 10 pins
Others connections on request

For more detailed information, please refer to the individual datasheets