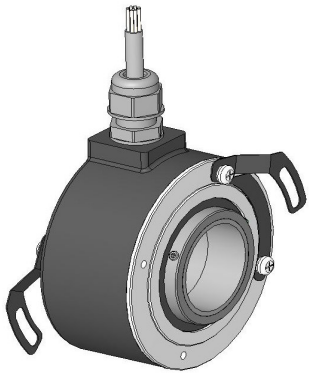
RCI90B HS



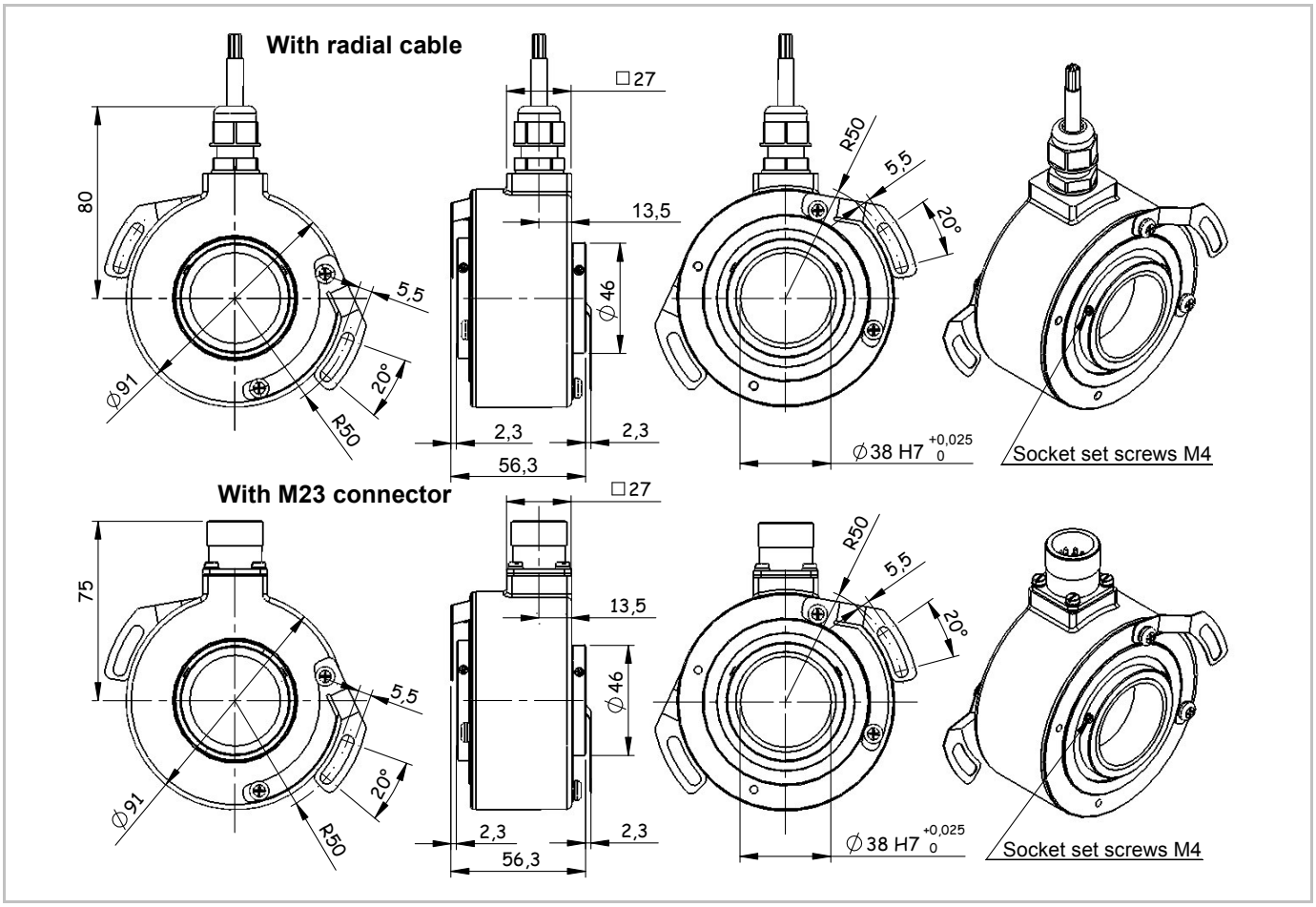
Incremental Optical Encoder with Hollow Through Shaft

RADIO-ENERGIE optical incremental encoders are designed for accurately measuring speed and position of rotating shafts in industrial environment: machine tools, packing machines, 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	Hollow shaft Ø 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), MS310
• Operating temp. range	- 25°C + 85°C

Outline drawings



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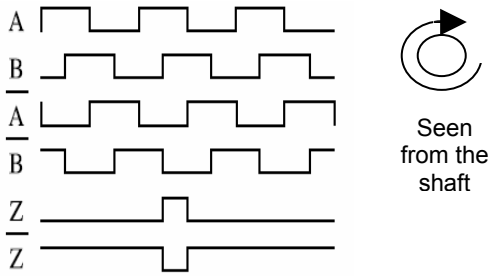
RCI90B HS

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	
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: 3000 rpm
- Starting torque: ≤ 30 N.cm
- Shaft Inertia: 970 gr.cm² without reducing ring
- Weight: 560 gr without reducing ring
- Protection: IP 65 (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

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

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