

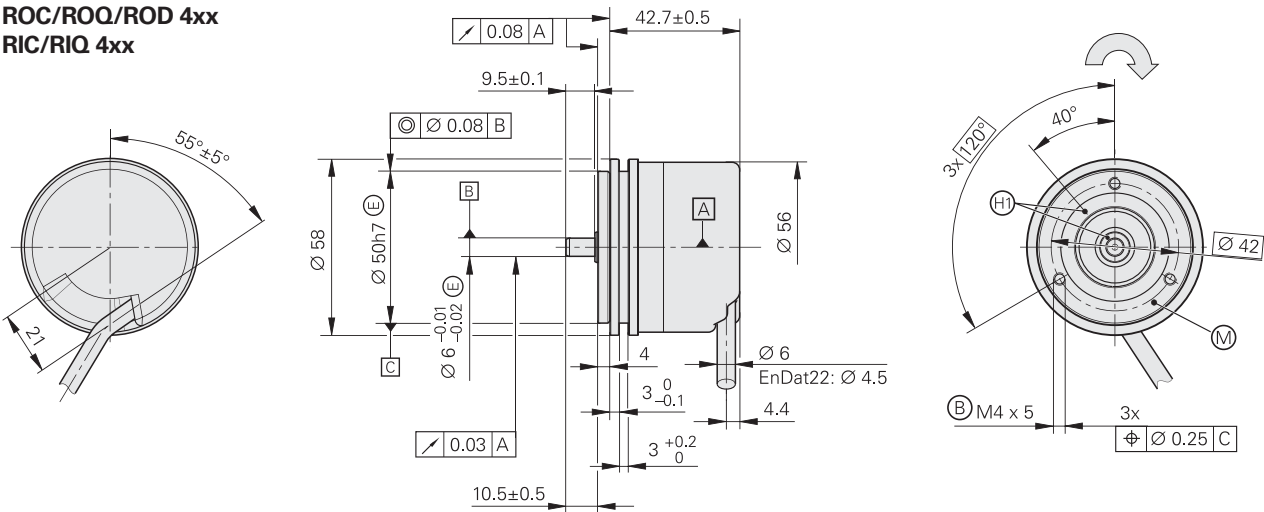
For ROC/ROQ/ROD 400 and RIC/RIQ 400 series

With Synchro Flange

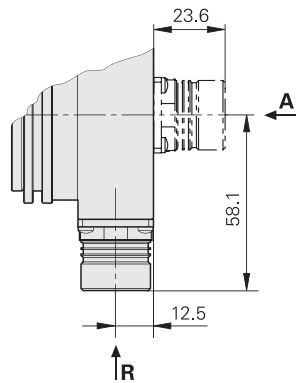
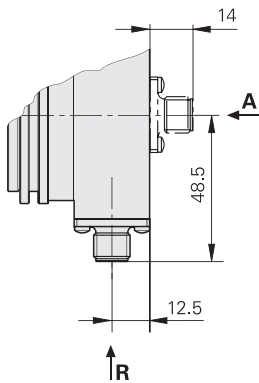
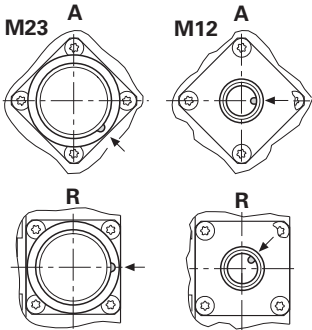
Rotary encoders for separate shaft coupling



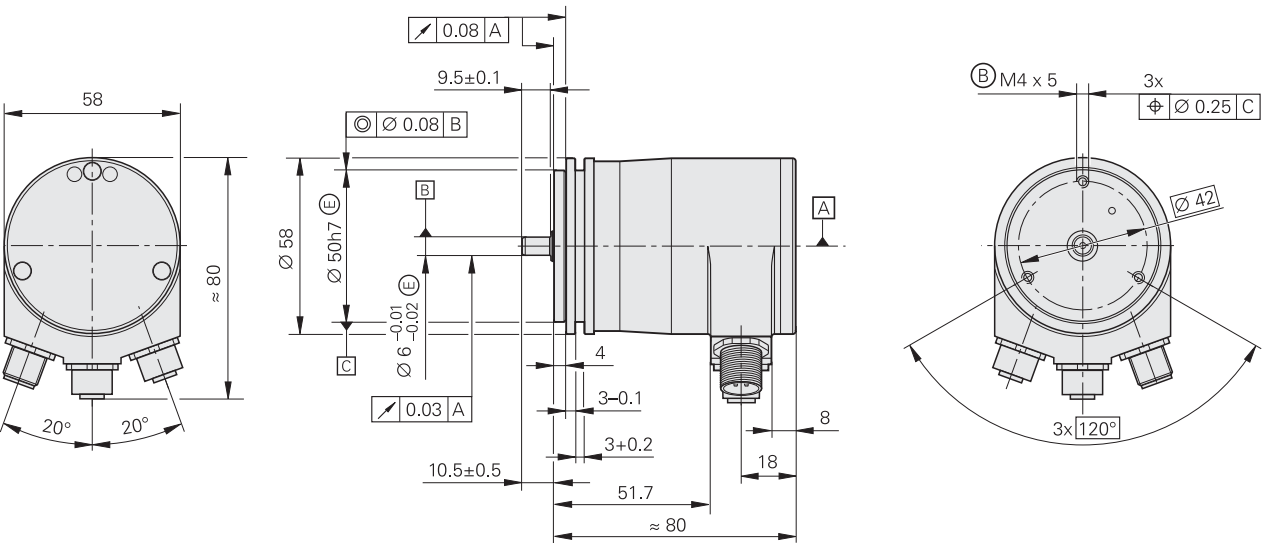
ROC/ROQ/ROD 4xx RIC/RIQ 4xx



Connector coding
A = axial, R = radial



ROC 413/ROQ 425 with PROFIBUS DP



Dimensions in mm



Tolerancing ISO 8015
ISO 2768 - m H
< 6 mm: ±0.2 mm

36

Cable radial, also usable axially

- ▣ = Bearing
- ⊙ = Threaded mounting hole
- Ⓜ = Measuring point for operating temperature
- ⊕ = ROD reference mark position on shaft and flange ±30°
- ↻ = Direction of shaft rotation for output signals as per the interface description

	Incremental			
	ROD 426	ROD 466	ROD 436	ROD 486
Incremental signals	□□TTL		□□HTL	~ 1 V _{PP} ¹⁾
Line counts*	50	100	150	200
	250	360	500	512
	720			–
	1000	1024	1250	1500
	1800	2000	2048	2500
	3600	4096	5000	
	6000 ²⁾	8192 ²⁾	9000 ²⁾	10000 ²⁾
				–
Cutoff frequency –3 dB	–			≥ 180 kHz
Scanning frequency	≤ 300 kHz/≤ 150 kHz ²⁾			–
Edge separation a	≥ 0.39 µs/≥ 0.25 µs ²⁾			–
System accuracy	1/20 of grating period			
Power supply	5 V ± 10 %	10 to 30 V	10 to 30 V	5 V ± 10 %
Current consumption without load	120 mA	100 mA	150 mA	120 mA
Electrical connection*	• Flange socket M23, radial and axial • Cable 1 m/5 m, with or without coupling M23			
Shaft	Solid shaft D = 6 mm			
Mech. permissible speed n	≤ 16000 min ^{–1}			
Starting torque	≤ 0.01 Nm (at 20 °C)			
Moment of inertia of rotor	≤ 2.7 · 10 ^{–6} kgm ²			
Shaft load ³⁾	Axial 10 N/radial 20 N at shaft end			
Vibration 55 to 2000 Hz	≤ 300 m/s ² (EN 60068-2-6)			
Shock 6 ms/2 ms	≤ 1000 m/s ² /≤ 2000 m/s ² (EN 60068-2-27)			
Max. operating temp. ⁴⁾	100 °C	70 °C	100 °C ⁵⁾	
Min. operating temp.	<i>Flange socket or fixed cable: –40 °C</i> <i>For frequent flexing: –10 °C</i>			
Protection EN 60529	IP 67 at housing; IP 64 at shaft end ⁶⁾			
Weight	Approx. 0.3 kg			

Bold: These preferred versions are available on short notice

* Please select when ordering

1) Restricted tolerances: Signal amplitude 0.8 to 1.2 V_{PP}

2) Signal periods; generated through integrated 2-fold interpolation (TTL x 2)

3) Also see *Mechanical Design and Installation*

4) For the correlation between the operating temperature and the shaft speed or supply voltage, see *General Mechanical Information*

5) 80° for ERN 80 with 4096 or 5000 lines

6) IP 66 upon request