



HEIDENHAIN



Product Information

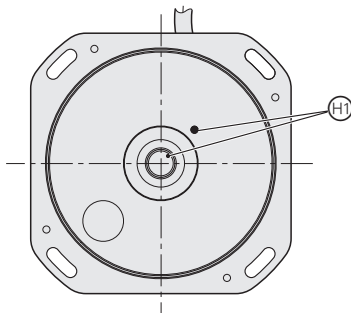
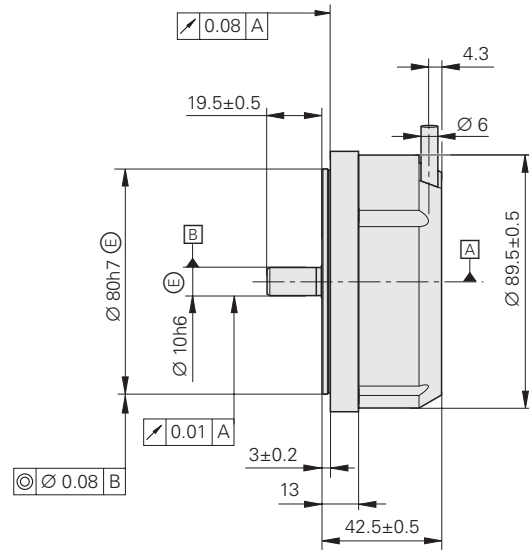
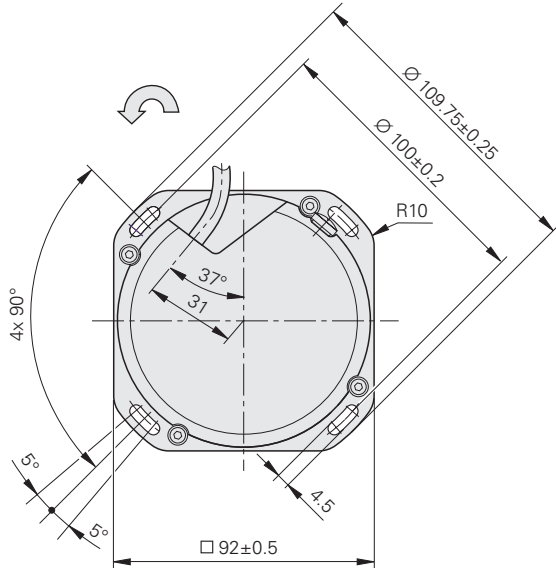
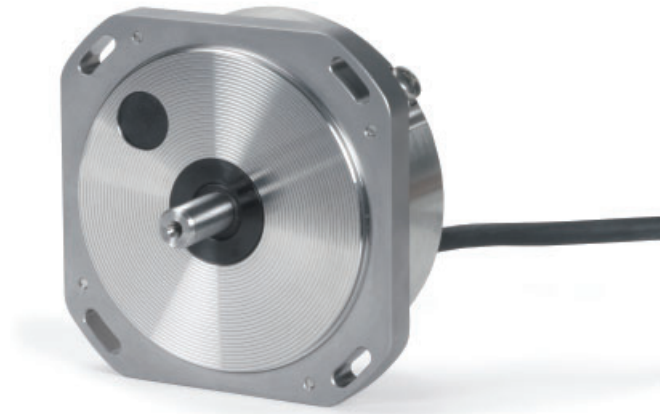
ROC 226 Series

Absolute Angle Encoders

April 2009

ROC 226 Series

- Absolute angle encoder for separate shaft coupling
- Stub shaft with $\varnothing 10$ mm

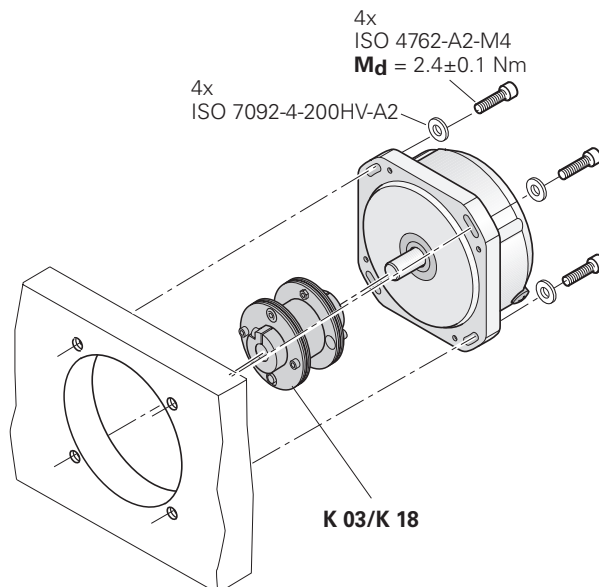



Dimensions in mm

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

- ▣ = Bearing
- ⊕ = Mark for 0° position ($\pm 5^\circ$)
- ↻ = Direction of shaft rotation for output signals according to interface description

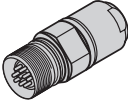




Mounting



	ROC 226	ROC 226S
Absolute position values	EnDat 2.2	SSI
Ordering designation	EnDat 02	SSI 25
Positions per rev	67 108 864 (26 bits)	
Elec. permissible speed	1 500 min ⁻¹	
Clock frequency	≤ 2 MHz	
Processing time	5 μs	8 μs to 10 μs
Incremental signals	 1 V _{PP}	
Line count	16384	
Cutoff frequency -3 dB	≥ 180 kHz	
Recommended measuring step	0.0001°	
System accuracy	± 5"	
Power supply	3.6 V to 5.25 V / max. 350 mA (without load)	
Electrical connection	Cable 1 m, with M23 coupling	
Cable length with HEIDENHAIN cable	≤ 150 m	≤ 100 m
Shaft	Solid shaft D = 10 mm	
Mech. perm. speed	≤ 4000 min ⁻¹	
Starting torque	≤ 0.015 Nm at 20 °C	
Moment of inertia of rotor	20 · 10 ⁻⁶ kgm ²	
Shaft load	Axial: 10 N Radial: 10 N at shaft end	
Vibration 55 to 2000 Hz Shock 6 ms	≤ 100 m/s ² (EN 60068-2-6) ≤ 1000 m/s ² (EN 60068-2-27)	
Operating temperature	<i>Frequent flexing:</i> -10 °C to 80 °C <i>Rigid configuration:</i> -40 °C to 80 °C	
Protection EN 60529	IP 66	
Weight	Approx. 1.2 kg	

Electrical Connection

Pin Layout













17-pin coupling M23													
													
	Power supply					Incremental signals				Absolute position values			
	7	1	10	4	11	15	16	12	13	14	17	8	9
	U_P	Sensor U_P	0V	Sensor 0V	Internal shield	A+	A-	B+	B-	DATA	DATA	CLOCK	CLOCK
	Brown/ Green	Blue	White/ Green	White	/	Green/ Black	Yellow/ Black	Blue/ Black	Red/ Black	Gray	Pink	Violet	Yellow

Shield on housing; **U_P** = Power supply voltage

Vacant pins or wires must not be used!

Sensor: The sensor line is connected internally with the corresponding power line.

PUR Connecting Cables

17-pin: [(4 × 0.14 mm ²) + 4(2 × 0.14 mm ²) + (4 × 0.5 mm ²)]		Ø 8 mm	17-pin M23
Complete with connector (female) and coupling (male)			323897-xx
Complete with connector (female) and D-sub connector (female) for IK 220			332115-xx
Complete with connector (female) and D-sub connector (male) for IK 215			324544-xx
With one connector (female)			309778-xx
Cable without connectors , Ø 8 mm			266306-01
Mating element on connecting cable to connector on encoder cable	Connector (female)  for cable Ø 8 mm		291697-26
Connector on connecting cable for connection to subsequent electronics	Connector (male)  for cable Ø 8 mm		291697-27
Coupling on connecting cable	Coupling (male)  for cable Ø 6 mm Ø 8 mm		291698-26 291698-27
Flange socket for mounting on subsequent electronics	Flange socket (female) 		315892-10

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For more information

- Brochure:
Angle Encoders with Integral Bearing