

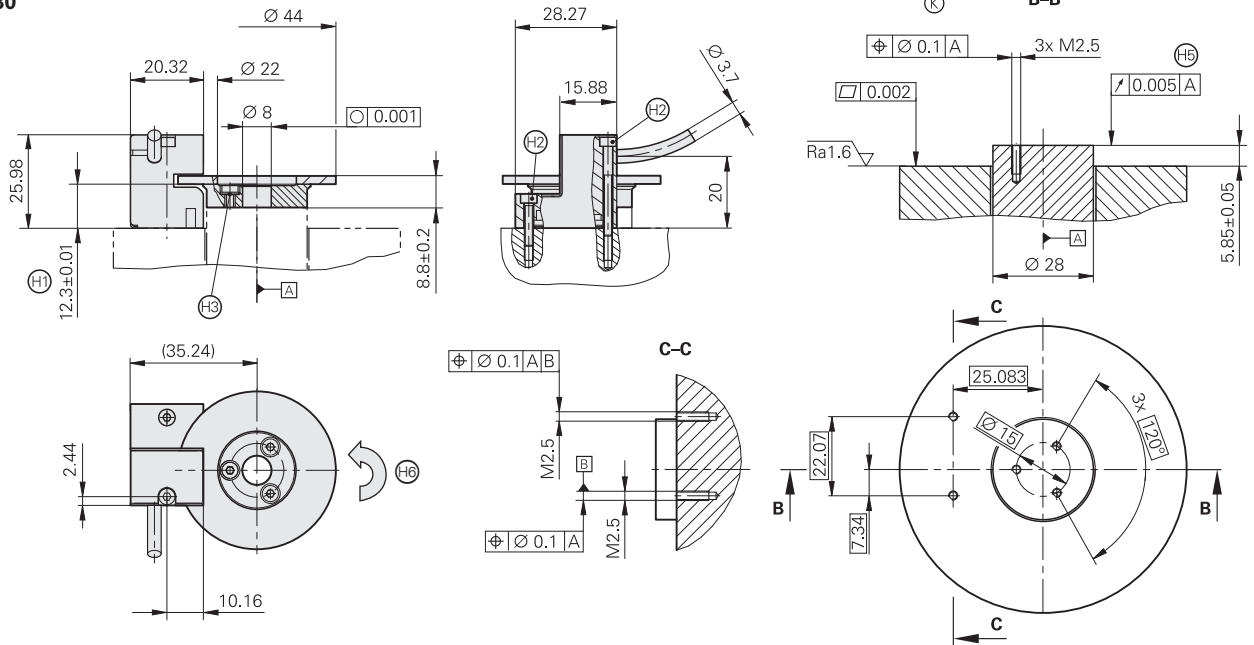
ERP 4080/ERP 8080

Incremental angle encoder for high accuracy

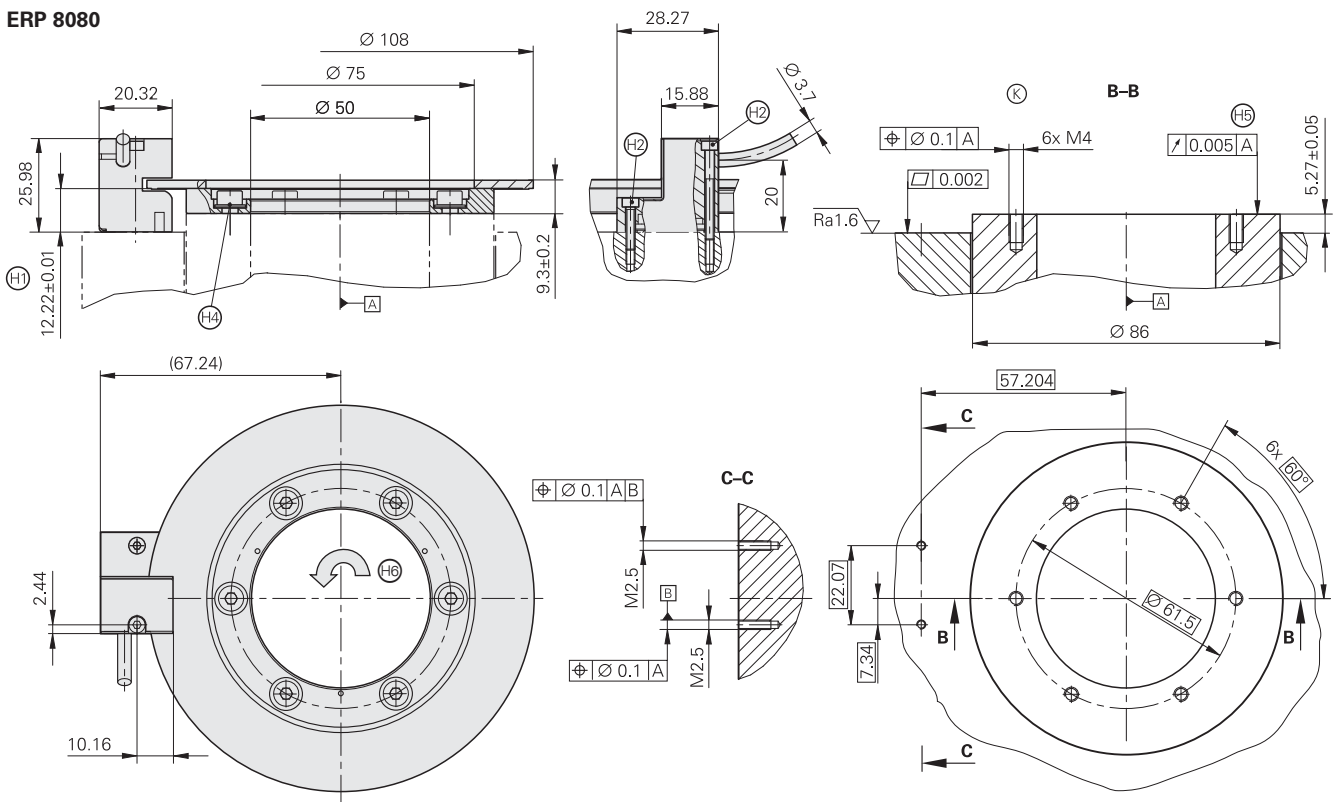
- Highest resolution
- Consists of scanning head and disk/hub assembly



ERP 4080



ERP 8080




mm



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

- Ⓐ = Bearing
- Ⓚ = Required mating dimensions
- Ⓜ = Mounting clearance set with spacer foil
- Ⓝ = Cylinder head screw ISO 4762-A2-M2.5
- Ⓞ = Cylinder head screw ISO 4762-A2-M2.5 and washer ISO 7089-2.5-140HV-A2
- Ⓟ = Cylinder head screw ISO 4762-A2-M4 and washer ISO 7089-4-140HV-A2
- Ⓠ = Mounting surface not convex
- Ⓡ = Direction of shaft rotation for output signals as per the interface description

Scanning head	AK ERP 4080	AK ERP 8080
Incremental signals	 1 V _{pp}	
Cutoff frequency -3 dB	≥ 250 kHz	
Power supply	DC 5 V ± 5 %	
Current consumption Without load	≤ 150 mA	
Electrical connection	Cable 1 m, with D-sub connector (15-pin)	
Cable length	≤ 30 m (with HEIDENHAIN cable)	
Vibration 55 to 2000 Hz Shock 6 ms	≤ 50 m/s ² (EN 60068-2-6) ≤ 500 m/s ² (EN 60068-2-27)	
Operating temperature	15 °C to 40 °C	
Protection EN 60529	IP 00 (for clean room application)	
Weight	approx. 33 g (without cable)	

Graduated disk	TKN ERP 4080	TKN ERP 8080
Measuring standard	Phase-grating graduation on glass	
Hub inside diameter	8 mm	50 mm
Signal periods	131072	360000
System accuracy ¹⁾	± 5"	± 2"
Accuracy of the graduation ²⁾	± 2"	± 1"
Reference mark	None	
Mech. permissible speed	≤ 300 min ⁻¹	≤ 100 min ⁻¹
Moment of inertia of rotor	5 · 10 ⁻⁶ kgm ²	250 · 10 ⁻⁶ kgm ²
Permissible axial motion of measured shaft	≤ ± 0.01 mm (including wobble)	
Weight	approx. 36 g	approx. 180 g

¹⁾ Before installation. Additional error caused by mounting inaccuracy and inaccuracy from the bearing of the measured shaft are not included.

²⁾ For other errors, see *Measuring Accuracy*

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