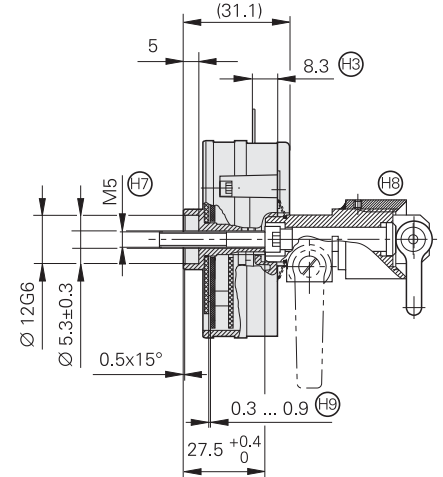
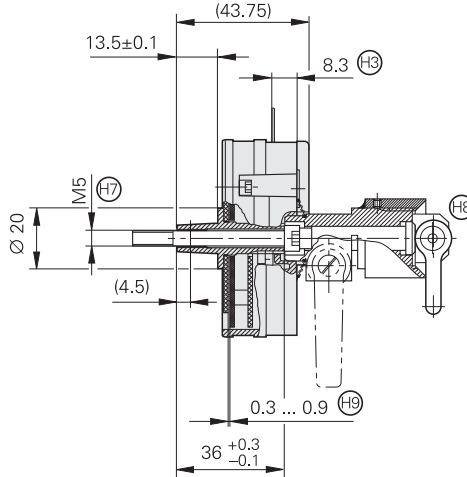
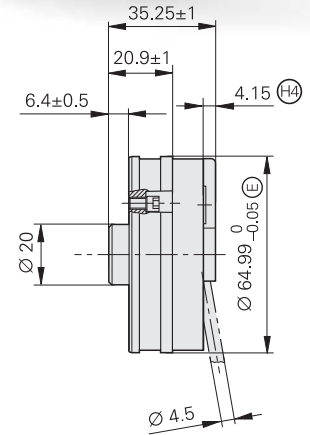
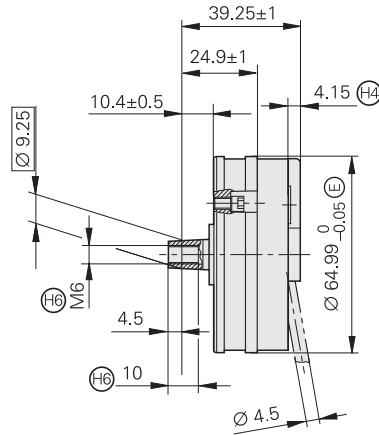
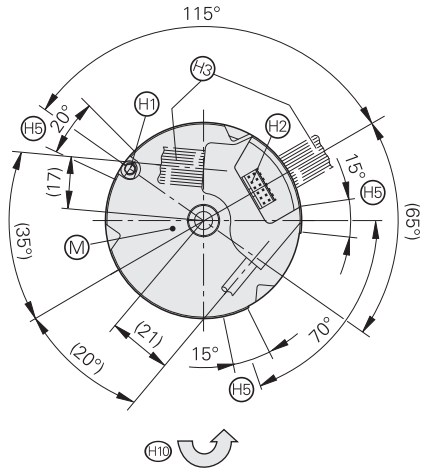


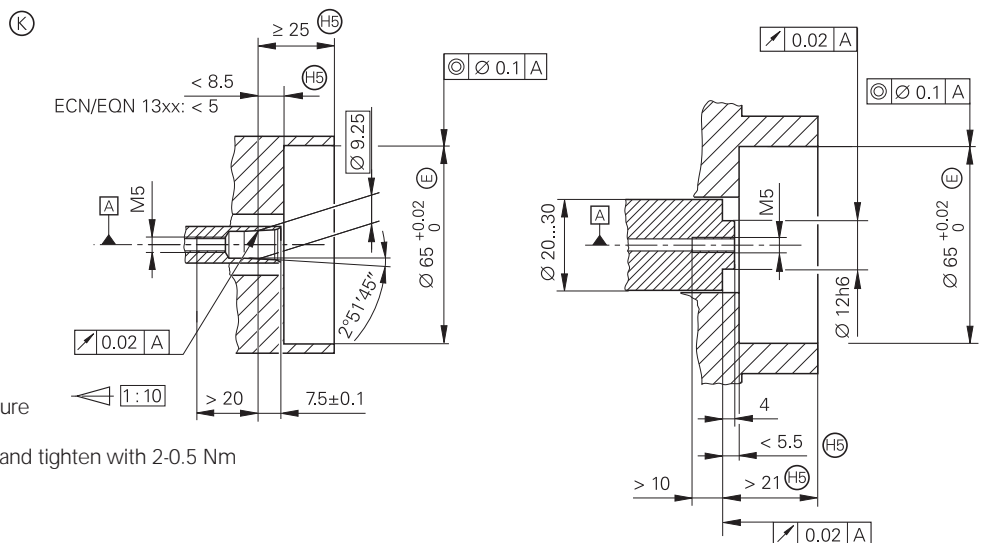
ECI/EQI 1300 Series

Rotary encoders without integral bearing for integration in motors



- Installation diameter 65 mm
- Taper shaft or blind hollow shaft



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



- ▣ = Bearing of mating shaft
- ⊙ = Required mating dimensions
- Ⓜ = Measuring point for operating temperature
- Ⓢ = Mounting screw
Turn back by more than one revolution, and tighten with 2-0.5 Nm
- Ⓣ = 12-pin PCB connector
- Ⓤ = Outlet for ribbon cable
- Ⓥ = Cable exit for round cable
- Ⓦ = Minimum clamping and support surface; a closed diameter is best
- Ⓧ = M6 back-off thread
- Ⓨ = Cylinder head screw for hollow shaft: ISO 4762 – M5 x 35-A2, tightening torque 5 Nm
Cylinder head screw for taper shaft: ISO 4762 – M5 x 50-A2, tightening torque 5 Nm
- Ⓩ = Setting tool for scanning gap
- ⓛ = Permissible scanning gap range over all operating conditions
- ⓞ = Direction of shaft rotation for output signals as per the interface description

	Absolute			
	ECI 1319		EQI 1331	
Incremental signals	 1 V _{PP}	None	 1 V _{PP}	None
Line count	32	–	32	–
Cutoff frequency –3 dB	≥ 6 kHz typical	–	≥ 6 kHz typical	–
Absolute position values	EnDat 2.1			
Ordering designation	EnDat 01	EnDat 21	EnDat 01	EnDat 21
Position values/rev	524288 (19 bits)			
Revolutions	–		4096 (12 bits)	
Elec. permissible speed/ deviations ¹⁾	≤ 3750 min ⁻¹ /± 128 LSB ≤ 15000 min ⁻¹ /± 512 LSB	≤ 15000 min ⁻¹ for continuous position value	≤ 4000 min ⁻¹ /± 128 LSB ≤ 12000 min ⁻¹ /± 512 LSB	≤ 12000 min ⁻¹ for continuous position value
Calculation time t _{cal}	≤ 8 μs			
System accuracy	± 180"			
Power supply*	DC 5 V ± 5% or DC 7 to 10 V			
Power consumption (maximum)	5 V: ≤ 0.7 W 7 V: ≤ 1.0 W 10 V: ≤ 1.4 W		5 V: ≤ 0.75 W 7 V: ≤ 1.1 W 10 V: ≤ 1.55 W	
Current consumption (typical)	100 mA (without load)		110 mA (without load)	
Electrical connection	Via 12-pin PCB connector			
Shaft*/Moment of inertia of rotor	Taper shaft	Ø 9.25 mm; Taper 1:10	/2.2 x 10 ⁻⁶ kgm ²	
	Blind hollow shaft	Ø 12.0 mm; Length 5 mm	/3.2 x 10 ⁻⁶ kgm ²	
Mech. permitt. speed n	≤ 15000 min ⁻¹		≤ 12000 min ⁻¹	
Permissible axial motion of measured shaft	–0.2/+0.4 mm with 0.5 mm scanning gap			
Vibration 55 Hz to 2000 Hz Shock 6 ms	≤ 100 m/s ² (EN 60068-2-6) ≤ 1000 m/s ² (EN 60068-2-27)			
Max. operating temp.	115 °C			
Min. operating temp.	–20 °C			
Protection EN 60529	IP 20 when mounted			
Weight	Approx. 0.13 kg			

* Please select when ordering

¹⁾ Velocity-dependent deviations between the absolute and incremental signals

Bold: Preferred model

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Calle 49 N° 5764 - Villa Ballester (B1653AOX) - Prov. de Buenos Aires - ARGENTINA
Tel: (+54 11) 4768-4242 / Fax: (+54 11) 4849-1212
Mail: ventas@nakase.com.ar / Web: www.nakase.com.ar

