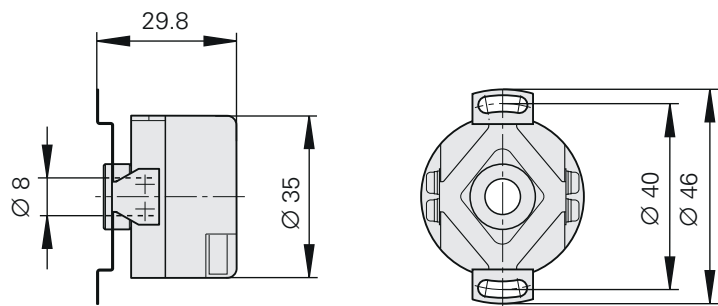


ERN 1123

- Incremental rotary encoders
- Stator coupling for plane surface
 - Hollow through shaft
 - Block commutation signals



Overall dimensions indicated without tolerances



For technical drawings, visit: www.heidenhain.com/documentation



Mating dimensions
[ID 1041991](#)

	ERN 1123												
Interface	□□TTL												
Signal periods per revolution*	500	512	600	1000	1024	1250	2000	2048	2500	4096	5000	8192	
Reference mark	One												
Output frequency Edge separation <i>a</i>	≤ 300 kHz ≥ 0.41 μs												
Commutation signals ¹⁾	□□TTL (3 commutation signals U, V, W)												
Width*	2 x 180° (C01); 3 x 120° (C02); 4 x 90° (C03)												
System accuracy	±260''			±130''									
Electrical connection	15-pin												
Supply voltage	DC 5 V ±0.5 V												
Current consumption (without load)	≤ 70 mA												
Shaft	Hollow through shaft (Ø 8 mm)												
Mech. permiss. shaft speed <i>n</i>	≤ 6000 rpm												
Starting torque (typical)	0.005 Nm (at 20 °C)												
Moment of inertia of rotor	0.5 · 10 ⁻⁶ kgm ²												
Permissible axial motion of measured shaft	±0.15 mm												
Vibration 25 Hz to 2000 Hz Shock 6 ms	≤ 100 m/s ² (EN 60068-2-6) ≤ 1000 m/s ² (EN 60068-2-27)												
Operating temperature	-20 °C to 90 °C												
Protection EN 60529	IP00 ²⁾												
Mass	≈ 0.06 kg												
Part number	684702-xx												

Bold: This preferred version is available on short notice

* Please select when ordering

¹⁾ Three square-wave signals with signal periods with 90°, 120°, or 180° mech. phase shift; see *Commutation signals for block commutation* in the *Interfaces of HEIDENHAIN Encoders* brochure

²⁾ Electromagnetic compatibility must be ensured in the entire system