

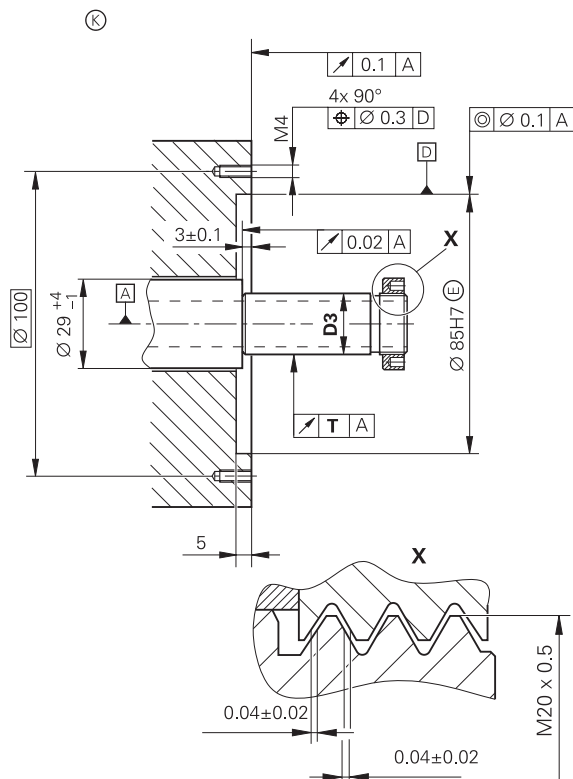
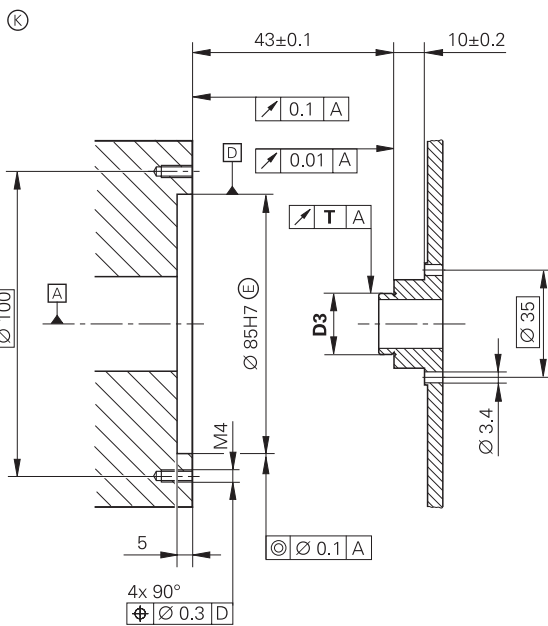
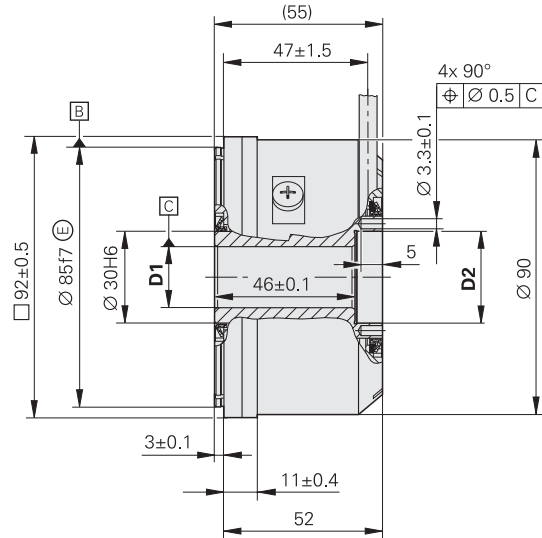
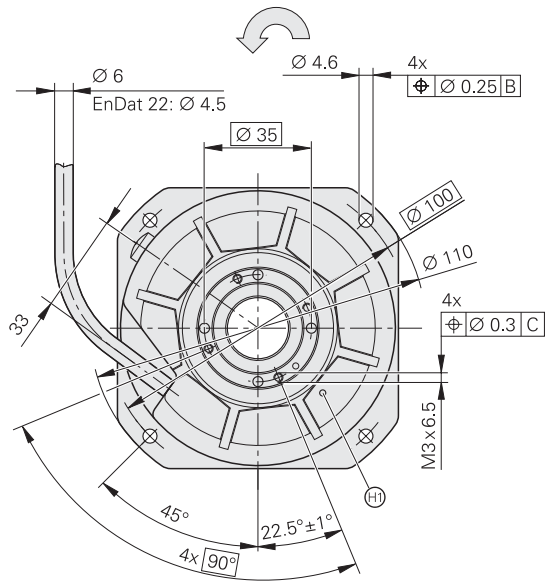
RCN 200 Series

- Integrated stator coupling
- Hollow through shaft, diameter 20 mm
- System accuracy $\pm 5''$ and $\pm 2.5''$

Dimensions in mm



Tolerancing ISO 8015
ISO 2768 - m H



Cable radial, also usable axially
⊕ = Ball bearing
⊗ = Required mating dimensions
↻ Direction of shaft rotation for output signals is described in interface description.

System accuracy	$\pm 2.5''$	$\pm 5''$
D1	Ø 20H6 ⊕	Ø 20H7 ⊕
D2	Ø 30H6 ⊕	Ø 30H7 ⊕
D3	Ø 20g6 ⊕	Ø 20g7 ⊕
T	0.01	0.02

	Absolute		
	RCN 226	RCN 223 F	RCN 223 M
Absolute position values	EnDat 2.1	Serial interface – Fanuc 01	Mitsubishi high-speed serial interface
Ordering designation	EnDat 01	Fanuc 01	Mitsu 01
Positions per revolution	67 108 864 (26 bits)	8 388 608 (23 bits)	
Elec. permissible speed	1500 rpm		
Clock frequency	≤ 2 MHz	–	
Calculation time t_{cal}	10 μs	–	
Incremental signals	 1 V _{PP}	–	
Line count	16384	–	
Cutoff frequency –3 dB	≥ 180 kHz	–	
Recommended meas. step for position capture	0.0001°		
System accuracy*	± 5″ or ± 2.5″		
Power supply without load	5 V ± 5% max. 350 mA		
Electrical connection*	Cable 1 m (3.3 ft), with M23 coupling		
Max. cable length ¹⁾	150 m	20 m	
Shaft	Hollow through shaft D= 20 mm		
Mech. permissible speed	≤ 3000 rpm		
Starting torque	≤ 0.08 Nm at 20 °C (68 °F)		
Moment of inertia of rotor	73 · 10 ^{–6} kgm ²		
Natural frequency	≥ 1200 Hz		
Permissible axial motion of measured shaft	± 0.1 mm		
Vibration 55 to 2000 Hz Shock 6 ms	≤ 100 m/s ² (IEC 60 068-2-6) ≤ 1000 m/s ² (IEC 60 068-2-27)		
Operating temperature	At ± 5″ accuracy: Moving cable: –10 to 70 °C (+14 to 158 °F) Rigid cable: –20 to 70 °C (–4 to 158 °F) At ± 2.5″ accuracy: 0 to 50 °C (32 to 122 °F)		
Protection IEC 60 529	IP 64		
Weight	Approx. 0.8 kg (1.8 lb)		

1) With HEIDENHAIN cable

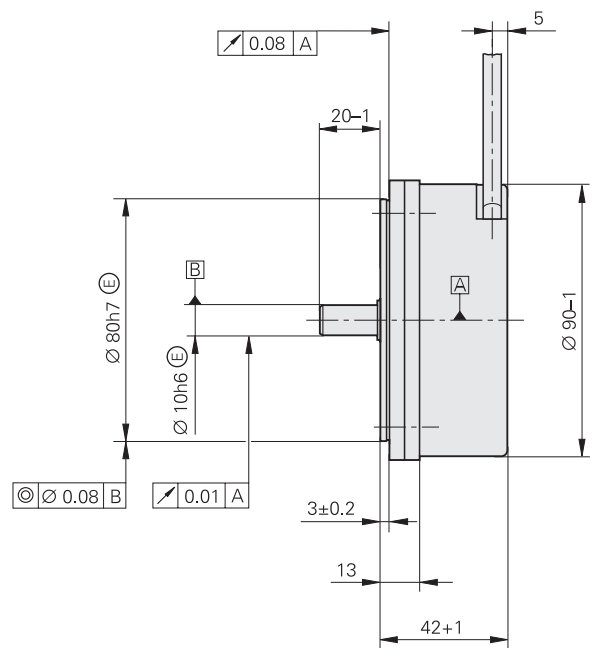
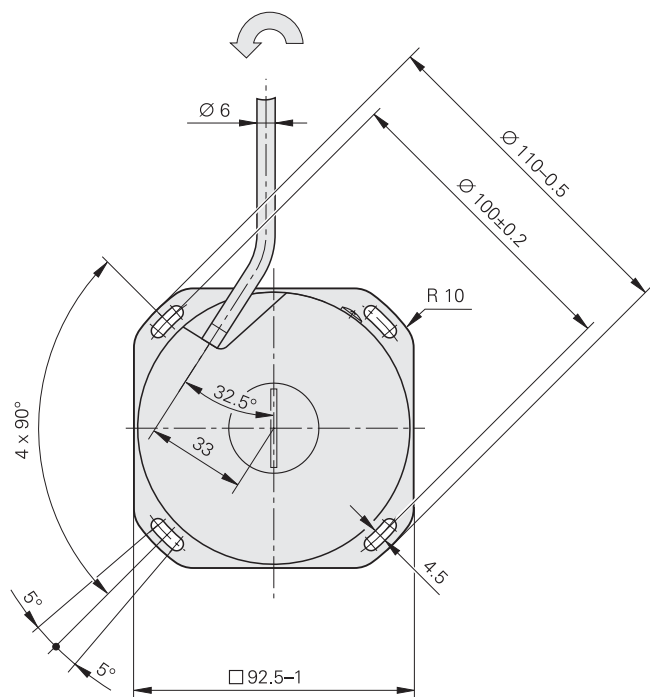
ROD 200 Series

- For separate shaft coupling
- System accuracy $\pm 5''$

Dimensions in mm



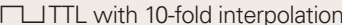
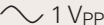
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ISO 2768 - m H



Cable radial, also usable axially

⊠ = Ball bearing

↻ Direction of shaft rotation for output signals is described in interface description.

	Incremental		
	ROD 260	ROD 270	ROD 280
Incremental signals	 TTL	 TTL with 10-fold interpolation	 1 V _{pp}
Line count	18 000		
Reference mark*	One		ROD 280: One ROD 280 C: Distance-coded
Cutoff frequency (–3 dB) Output frequency	– Max. 1 MHz		≥ 180 kHz –
Elec. permissible speed	3333 rpm	≤ 333 rpm	–
Recommended measuring step for position capture	0.005°	0.0005°	0.0001°
System accuracy	± 5"		
Power supply without load	5 V ± 10% max. 150 mA		
Electrical connection*	Cable 1 m (3.3 ft), with or without M23 coupling		
Max. cable length ¹⁾	100 m		150 m
Shaft	Solid shaft D = 10 mm		
Mech. permissible speed	≤ 10 000 rpm		
Starting torque	≤ 0.01 Nm at 20 °C (68 °F)		
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 (IEC 60 068-2-6) ≤ 1000 m/s ² (IEC 60 068-2-27)		
Operating temperature	Moving cable: –10 to 70 °C (+14 to 158 °F) Rigid cable: –20 to 70 °C (–4 to 158 °F)		
Protection IEC 60 529	IP 64		
Weight	Approx. 0.7 kg (1.5 lb)		

* Please indicate when ordering

¹⁾ With HEIDENHAIN cable