

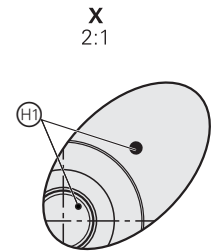
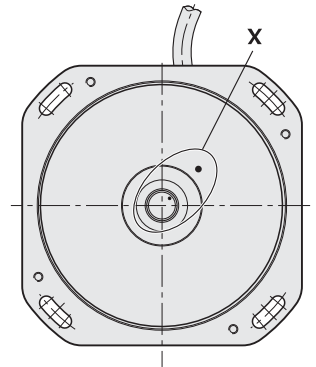
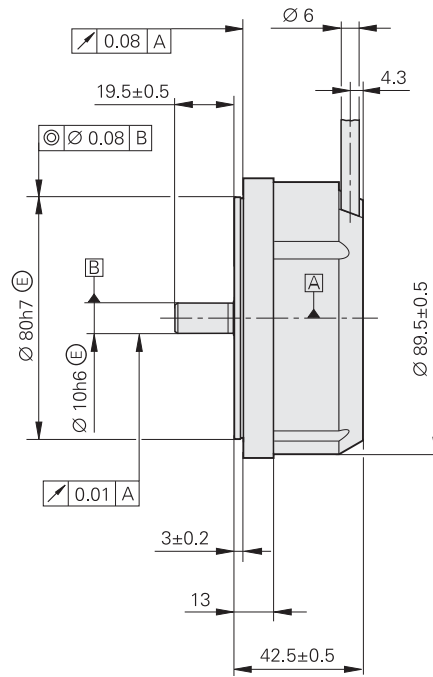
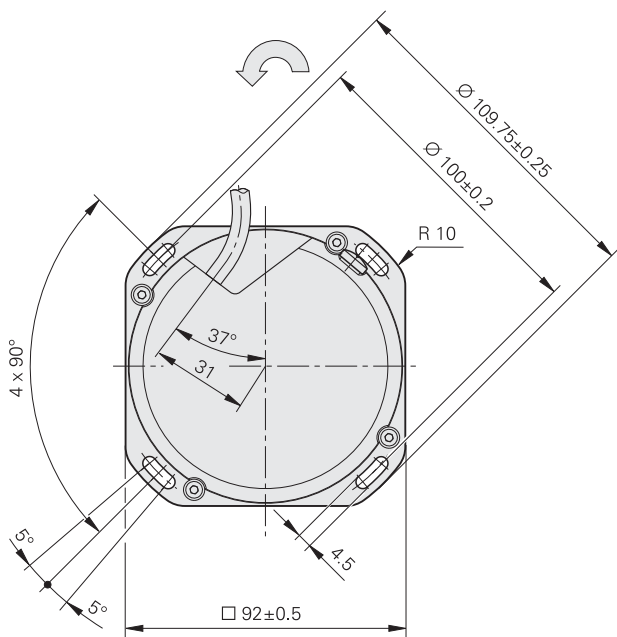
# ROD 200 Series

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

Dimensions in mm



Tolerancing ISO 8015  
ISO 2768 - m H  
< 6 mm:  $\pm 0.2$  mm



Cable radial, also usable axially

▣ = Bearing

⊕ = Position of the reference-mark signal

ROD 220/270/280:  $\pm 10^\circ$

ROD 280C:  $\pm 5^\circ$

↻ Direction of shaft rotation for output signals as per the interface description

	Incremental		
	ROD 220	ROD 270	ROD 280
<b>Incremental signals</b>	□□TTL x 2	□□TTL x 10	~ 1 V <sub>PP</sub>
Line count Integrated interpolation Output signals/rev	9000 2-fold 18000	18000 10-fold 180000	18000 – 18000
Reference mark*	One		ROD 280: One RON 280C: Distance-coded
Cutoff frequency –3 dB Output frequency Edge separation a	– ≤ 1 MHz ≥ 0.125 μs	– ≤ 1 MHz ≥ 0.22 μs	≥ 180 kHz – –
Elec. permissible speed	3333 min <sup>-1</sup>	≤ 333 min <sup>-1</sup>	–
<b>Recommended measuring step</b> for position measurement	0.005°	0.0005°	0.0001°
<b>System accuracy</b>	± 5"		
<b>Power supply</b> Without load	5 V ± 10 %, max. 150 mA		
<b>Electrical connection*</b>	Cable 1 m, with or without M23 coupling		
<b>Max. cable length<sup>1)</sup></b>	100 m		150 m
<b>Shaft</b>	Solid shaft D = 10 mm		
<b>Mech. perm. speed</b>	≤ 10000 min <sup>-1</sup>		
<b>Starting torque</b>	≤ 0.01 Nm at 20 °C		
<b>Moment of inertia</b> of rotor	20 · 10 <sup>-6</sup> kgm <sup>2</sup>		
<b>Shaft load</b>	Axial: 10 N Radial: 10 N at shaft end		
<b>Vibration</b> 55 to 2000 Hz <b>Shock</b> 6 ms	≤ 100 m/s <sup>2</sup> (EN 60068-2-6) ≤ 1000 m/s <sup>2</sup> (EN 60068-2-27)		
<b>Operating temperature</b>	Moving cable: –10 to 70 °C Stationary cable: –20 to 70 °C		
<b>Protection</b> EN 60529	IP 64		
<b>Weight</b>	Approx. 0.7 kg		

\* Please select when ordering

<sup>1)</sup> With HEIDENHAIN cable

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