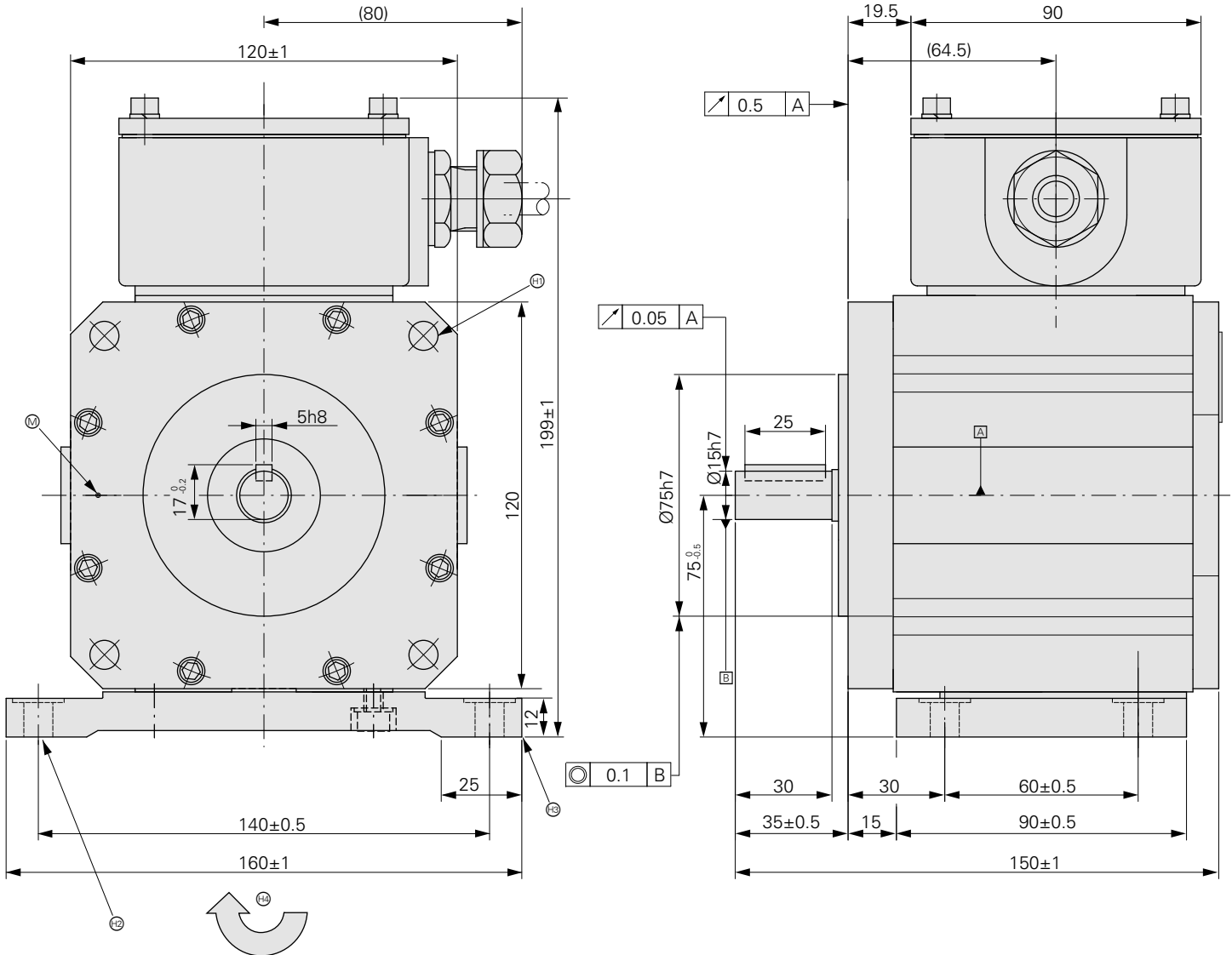


ROD 1900 Series

Incremental Rotary Encoders for separate rotor coupling

- Outer Diameter 120 mm
- Length 115 mm
- Shaft Diameter 15 mm



Dimensions in mm



Tolerancing ISO 8015

- Ⓜ = Measuring point for operating temperature
- Ⓝ = Mounting holes 4- $\varnothing 9$, PCD 140
- Ⓢ = Mounting holes 4- $\varnothing 9$
- Ⓟ = Mounting stage
- Ⓣ = Direction of shaft rotation for output signals as per the interface description

	ROD 1931
Incremental signals	\square HTLs ¹⁾ - C ²⁾
Output pulse *	600 1024 1200 2400
Scanning frequency Edge separation <i>a</i>	≤ 100 kHz ≥ 0.62 μ s
System accuracy	$\pm 1/10$ SP
Power supply Current consumption without load	10.8V to 16.5V ≤ 70 mA
Source / Sink max.	≤ 40 mA
Electrical connection	Terminal board
Shaft	Solid shaft D = 15 mm
Mech. permissible speed n	≤ 4000 min ⁻¹
Starting torque (at 20°C)	≤ 0.05 Nm
Moment of inertia of rotor	$2.5 \cdot 10^{-5}$ kgm ²
Shaft load	Axial: 100 N Radial: 100 N
Vibration 25 to 200 Hz Shock 6 ms	≤ 100 m/s ² (JIS C 60 068-2-6, EN 60 068-2-6) ≤ 1000 m/s ² (JIS C 60 068-2-27, EN 60 068-2-27)
Max. operating temp.	70°C
Min. operating temp.	-20°C
Protection EN 60 529	IP66
Weight	Approx. 4.5 kg

Bold : preferred versions

* Please select when ordering.

¹⁾ Without inverse signal

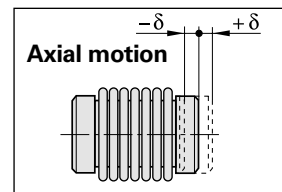
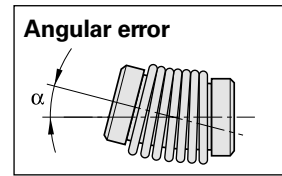
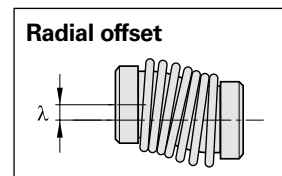
²⁾ Bypass capacitor is connected to FG.

This capacitor is removable if unnecessary

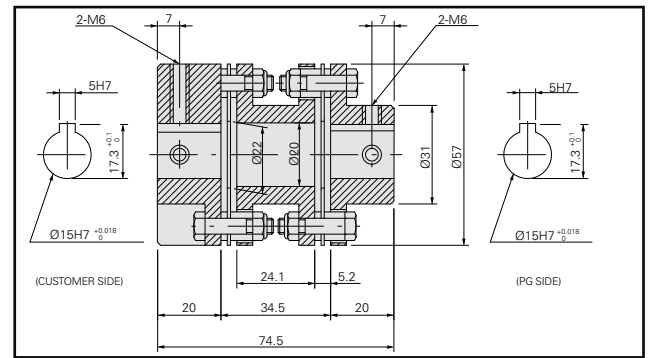
Mounting Accessories

	C 100	C 213
Hub bore	15/15 mm	
Galvanic isolation	–	✓
Kinematic transfer error*	± 3'	
Torsional rigidity	7300 $\frac{\text{Nm}}{\text{rad}}$	
Max. torque	15 Nm	
Max. radial offset λ	≤ 0.7 mm	
Max. angular error α	≤ 1.5 °	
Max. axial offset δ	≤ 2.2 mm	
Moment of inertia (approx.)	13.6 · 10 ⁻⁵ kgm ²	9.8 · 10 ⁻⁵ kgm ²
Permissible speed	20000 min ⁻¹	5000 min ⁻¹
Weight	340 g	300 g

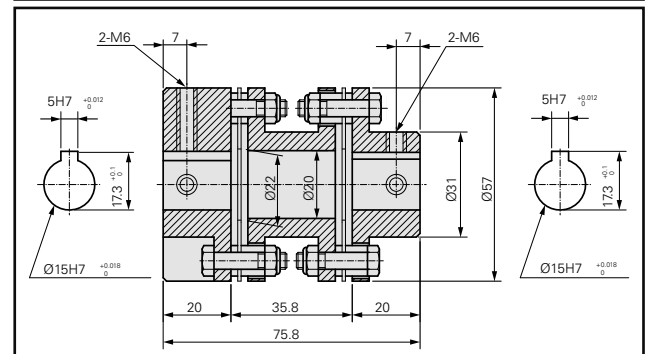
*With radial misalignment $\lambda = 0.1$ mm, angular error $\alpha = 0.15$ mm over 100 mm $\triangleq 0.09$, valid up to 50 °C



Rotor coupling C 100
ID 731 376-01



Rotor coupling C 213
ID 731 376-02



Pin Layout HTLs- C

Screw-terminal connection									
Power supply			Incremental signals						
Connection	1	2	3	4	5	6			
	U _P	0V	FG ¹⁾	U _{a1}	0V ²⁾	U _{a2}	0V	U _{a0}	0V ³⁾

U_P = power supply

¹⁾ FG: M4 hole in the terminal box.

²⁾ Please connect to **Connection 2**.

³⁾ Please connect to **Connection 5**

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