






High Resolution Rotary Encoders

SPECIFIC CHARACTERISTICS	H-....-D90	S-....-D90	H-....-D200	S-....-D170	S-90.000-1024 D90
Measuring	Graduated Glass Disc				
Precision	± 5"		± 2"		± 4"
Pulses per revolution	18000, 90000 and 180000		18000, 36000, 90000, 180000 and 360000	18000, 90000 and 180000	90000-1024 (Double Feedback)
Vibration	100 m/seg ² (55 ÷ 2000 Hz) IEC 60068-2-6				
Natural frequency	≥ 1000 Hz	-	≥ 1000 Hz	-	-
Impact	1000 m/seg ² (6 mseg) IEC 60068-2-27			300 m/seg ² (11 mseg) IEC 60068-2-27	
Momentum of inertia	730 gr.cm ²	200 gr.cm ²	10000 gr.cm ²	350 gr.cm ²	350 gr.cm ²
Maximum turning speed	3000 RPM	10000 RPM	1000 RPM	3000 RPM	6000 RPM
Turning torque	≤ 0.08 Nm	≤ 0.01 Nm.	≤ 0.5 Nm.	0.012 Nm.	0.01 Nm.
Shaft	Hollow Shaft	Protruding Shaft	Hollow Shaft	Protruding Shaft	Protruding Shaft
Shaft Load:	-	Axial: 1 Kg. Radial: 1 Kg.	-	Axial: 2 Kg. Radial: 5 Kg.	Axial: 2 Kg. Radial: 4 Kg.
Weight	1 Kg.	0.8 Kg.	3.2 Kg.	2.65 Kg.	0.8 Kg.
Environmental data:					
Operating Temperature	-20°...+70°C		0°...+50°C		-20°...+70°C
Storage Temperature	-30°...+80°C				
Sealing Protection	IP 64 (DIN 40050)				
Light Source	IRED (Infra-Red Emitting Diode)				
Maximum Frequency	100 KHz. (400 KHz. for 90000 pulses/turn)				400 KHz
Maximum consumption (without load)	Maximum 150 mA			Maximum 250 mA	
Supply voltage	5 V ± 5%				
Electronics for pulse generation	Inside the encoder				
Reference pulse I ₀	One reference signal per turn or a "floating" distance-coded reference mark (I ₀)			One reference signal per turn	
Señales de salida	 Differential TTL (90000, 180000 and 360000 pulses/turn)  1Vpp (18000 and 36000 pulses/turn)			 Differential TTL	
Maximum cable length allowed:	 TTL signals: 50 m (163 ft)			 1Vpp: 150 m (490 ft)	

Order Identification - S-90000-1024 D90 Model (Dual Feedback)

Example: S - 90000-1024 - D-90 - CC

S	Shaft For this model, always Protruding Shaft
O	Reference mark type I₀ • Blank: Incremental, a reference mark per turn
90000-1024	Pulses/turn • Two output signals: 90000 pulses/turn and 1024 pulses/turn
D-90	Diameter • For this model, always 90 mm (3.5 inches)
CC	Connector • CC: Two connectors

Order Identification - Other models

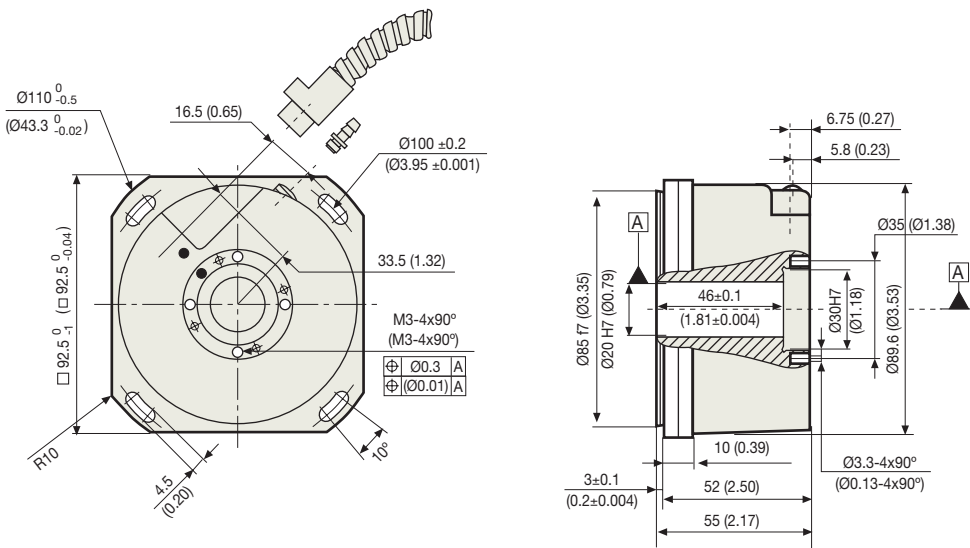
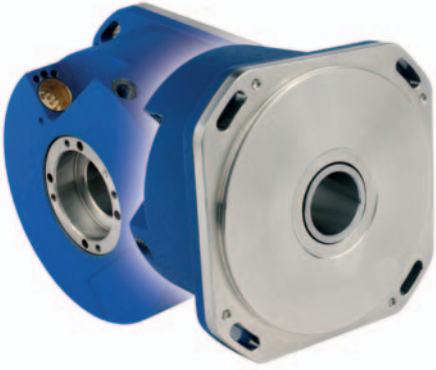
Example: S - O - P - 18000 - D90

S	Shaft • S: Protruding Shaft. H: Hollow Shaft
O	Reference mark type I₀ • Blank: Incremental, a reference mark per turn • O: Distance-coded reference mark
P	Signal type • Blank: TTL 5V • P: 1Vpp (Only model having 18000 and 36000 pulses/turn)
18000	Pulses/turn 18000, 36000, 90000 and 180000
D90	Diameter • D90: 90 mm (3.5 inches) • D170: 170 mm (6.7 inches). Only protruding shaft Encoders • D200: 200 mm (7.8 inches)

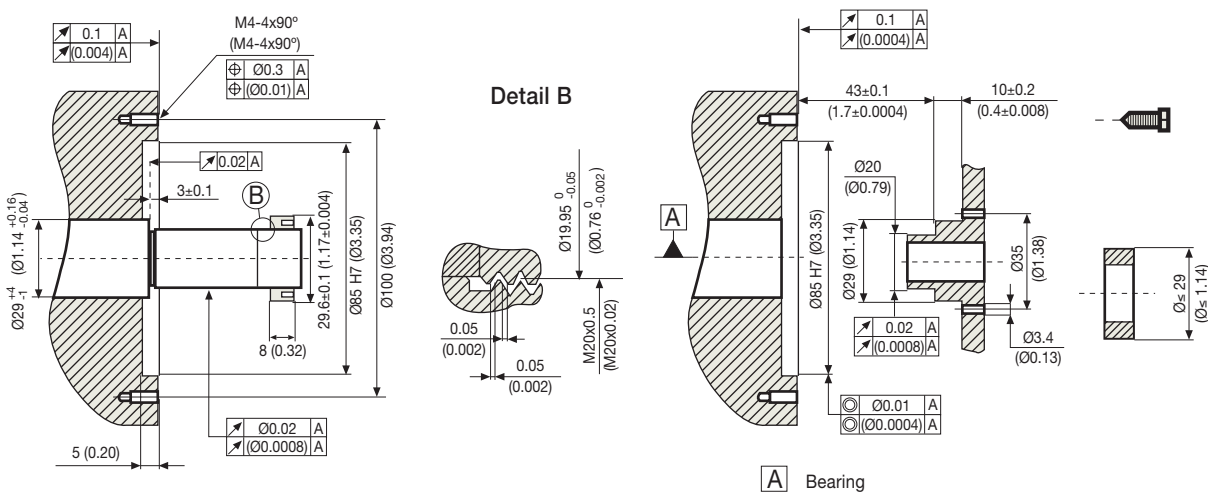
Note: • Only the S-90000-1024 D90 and S-...-D170 models include a cable.

• Request the cable for the rest of the models. Recommended cable: EC-...-A-C1 (see page 27)

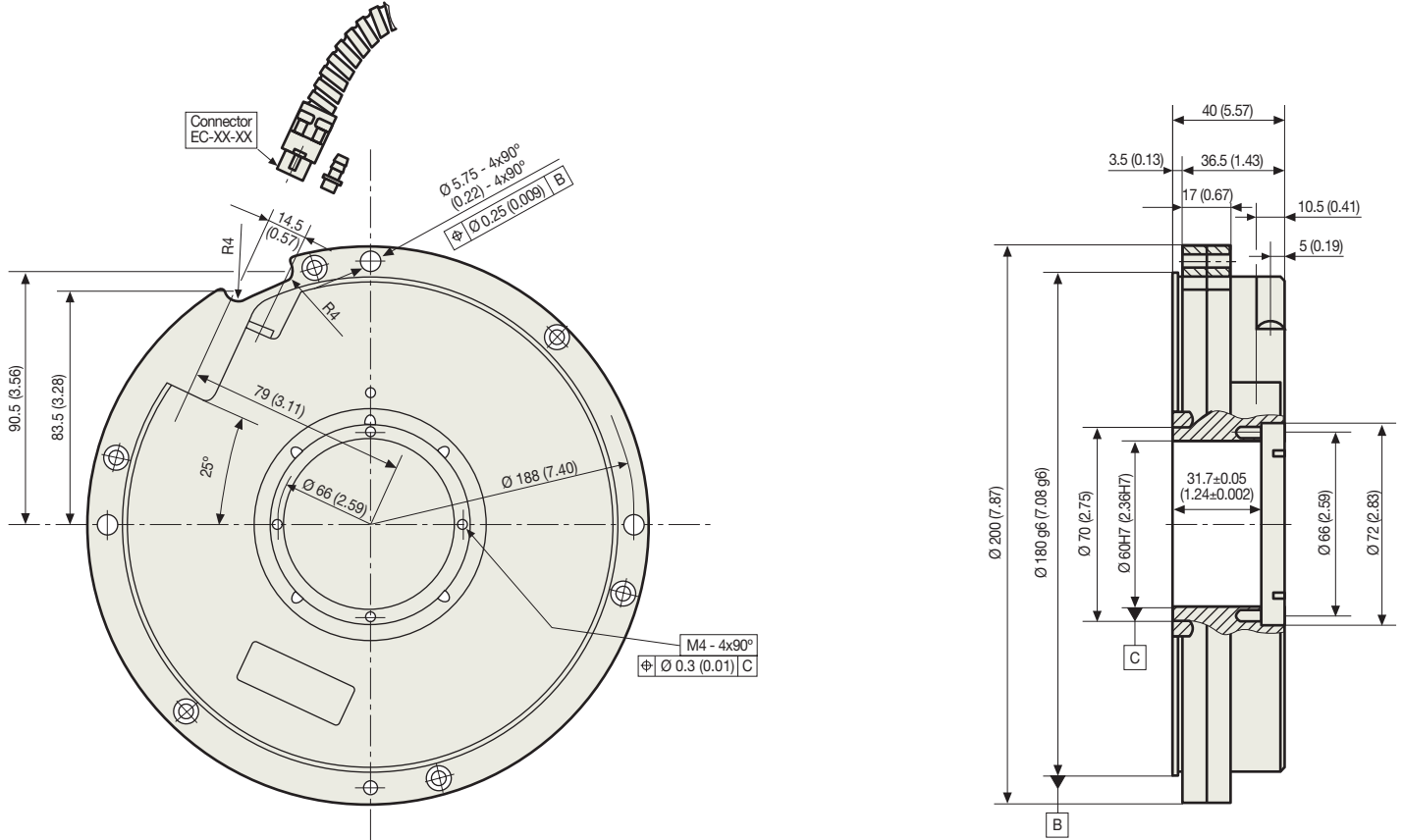
H... D90 Model



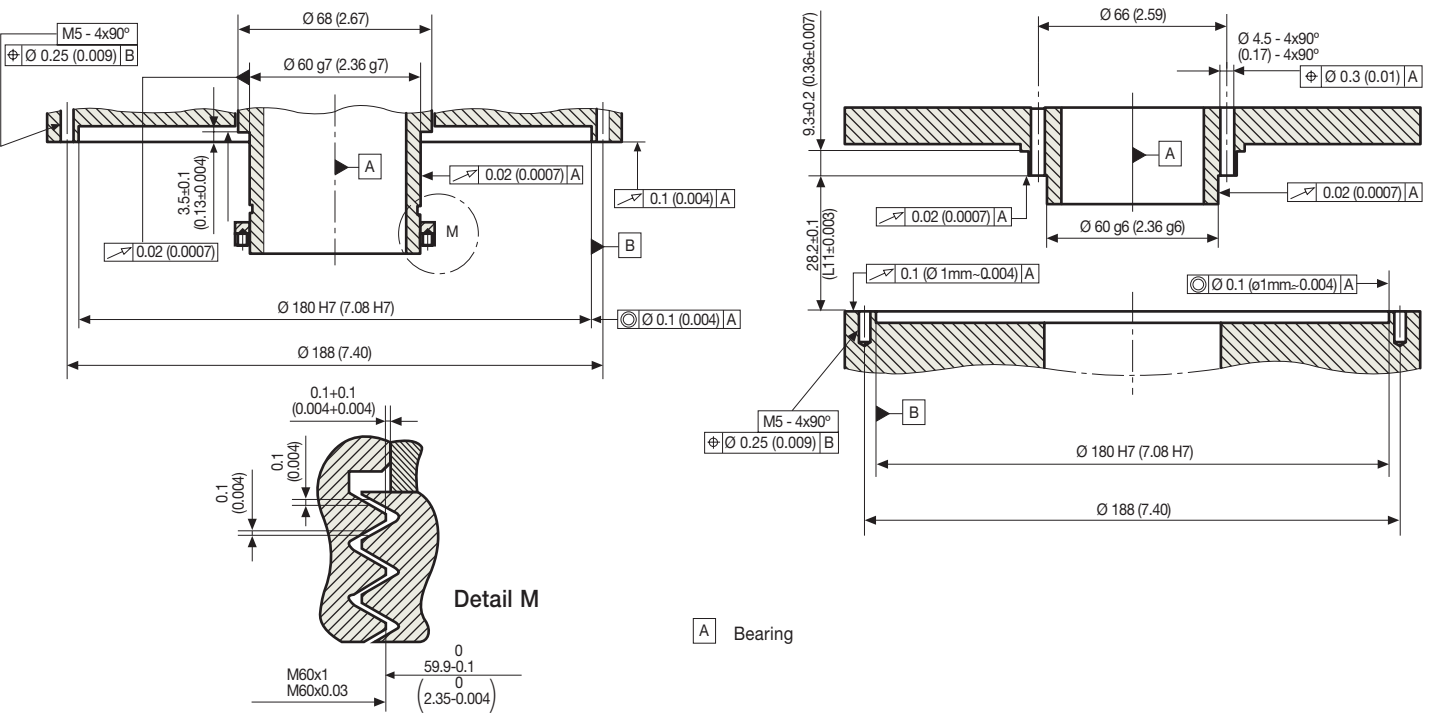
Mounting options



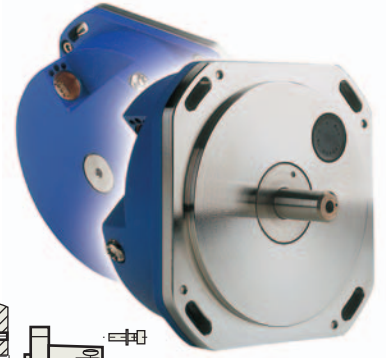
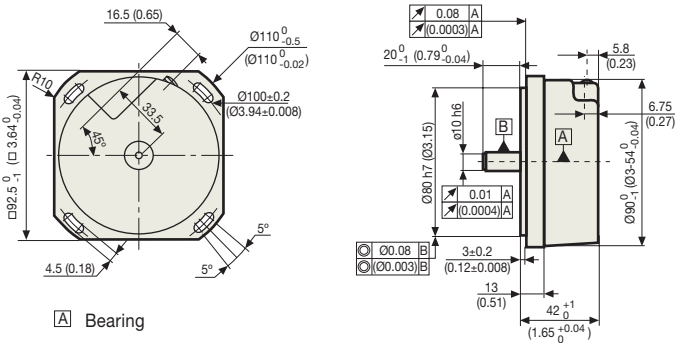
H... D200 Model



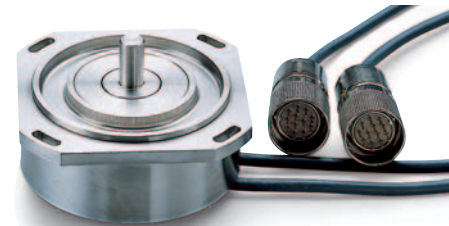
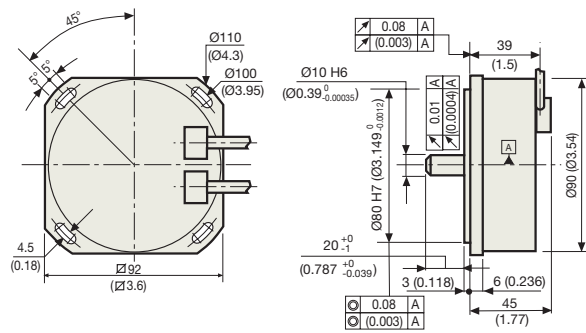
Mounting options



S... D90 Model



S-90.000 - 1024-D90 Model



S... D170 Model

