

EL 63

GB / FB / PB / PBF / PC / PCF

INCREMENTAL ENCODER



MAIN FEATURES

Hollow shaft encoder series for industrial applications with high mechanical resistance requirements.

- Up to 2500 ppr with zero signal
- Several output types available
- Up to 28 V DC power supply
- Up to 300 kHz output frequency
- Cable output or connector at cable end



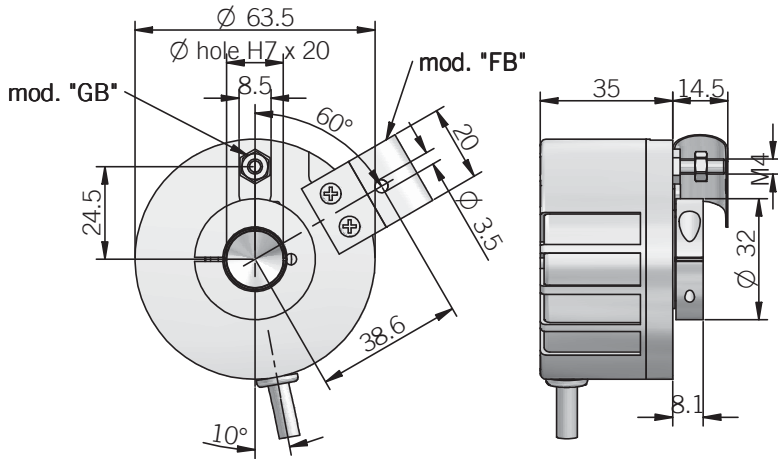
HOLLOW SHAFT INCREMENTAL ENCODERS

ORDERING CODE

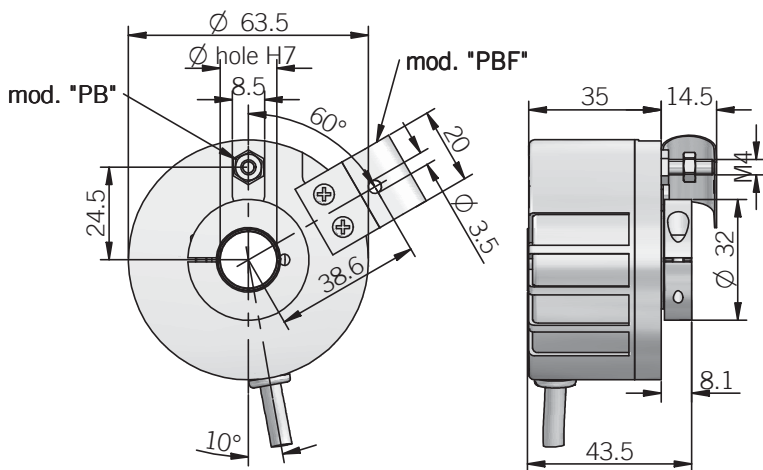
SERIES incremental encoder series EL	SIZE mm 63	TYPE blind shaft with spring FB blind shaft with antirotation pin GB hollow shaft with antirotation pin PB hollow shaft with spring PBF shaft without metal ring with antirotation pin PC shaft without metal ring with spring PCF	RESOLUTION ppr from 1 to 2500 <i>N.B.: please directly contact our offices for pulses availability</i>	ZERO PULSE without zero pulse S with zero pulse Z	POWER SUPPLY (available only with L electronic output) 5 V DC 5 (available only with L or PC electronic output) 8 ... 24 V DC 8/24 5 ... 28 V DC 5/28	BORE DIAMETER 8 mm 10 mm 12 mm 14 mm 15 mm	ELECTRONIC INTERFACE N NPN C NPN open collector P push-pull PC protected push-pull (AEIC-7272) L line driver	VARIANT XXX custom version	DIRECTION TYPE R radial	OUTPUT TYPE P cable output (standard length 1.5 m)	MAX ROTATION SPEED 3 3000 rpm	ENCLOSURE RATING X IP 54
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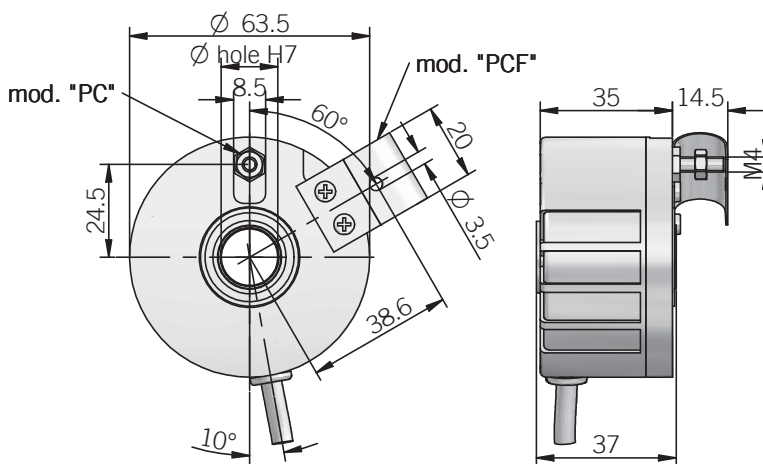
EL63 FB / GB



EL 63 PB / PBF



EL 63 PC / PCF



Mounting instructions

EL 63 FB / PBF / PCF models

1. Couple encoder shaft with motor shaft
2. Fix spring to motor flange without tightening it
3. Fix encoder shaft on motor shaft (FB - PBF models)
4. Fix encoder shaft packed with the motor shaft.
5. Place a washer at the end of the encoder shaft, under the screw that blocks the whole pack (PCF model)
6. Turn encoder for electrical adjustment (phasing)
7. Fix spring

EL 63 GB / PB / PC models

1. Fix anti-rotation pin on motor flange
2. Couple encoder shaft with motor shaft, making sure pin is inserted in the hole on the front part of the encoder (maintaining a minimum distance of 0.5 mm)
3. Fix encoder shaft on motor shaft (GB - PB models)
4. Fix encoder shaft packed with the motor shaft
5. Place a washer at the end of the encoder shaft, under the screw that blocks the whole pack (PC model)

Electrical specifications

Resolution	from 1 to 2500 ppr
Power supply	5 V DC \pm 10% 5 ... 28 V DC \pm 5% 8 ... 24 V DC \pm 5% (reverse polarity protection)
Power draw without load	800 mW
Max load current	50 mA for channel 20 mA for channel (line driver)
Output type	NPN NPN open collector push-pull line driver
Max output frequency	300 kHz
Counting direction	A leads B clockwise (shaft view)
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

Mechanical specifications

Shaft diameter	\varnothing 8 / 10 / 12 / 14 / 15 mm
Enclosure rating	IP 54 (IEC 60529)
Max rotation speed	3000 rpm
Max shaft load	200 N (20 kp)
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Body material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	PA 66 glass fiber reinforced
Bearings	2 ball bearings
Bearings life	10 ⁹ revolutions
Operating temperature	-10° ... +60°C
Storage temperature	-25° ... +70°C
Weight	350 g

Connections and standard colours

Function	Push pull / Npn / Npn open collector	Line driver
+V DC	red	red
0 V	black	black
Ch. A	green	green
Ch. A-	/	brown
Ch. B	yellow	yellow
Ch. B-	/	orange
Ch. Z	blue	blue
Ch. Z-	/	white
\perp	shield	shield