

# EL 63 FB / GB / PB / PBF / PC / PCF

## BLIND / THROUGH HOLLOW SHAFT INCREMENTAL ENCODER

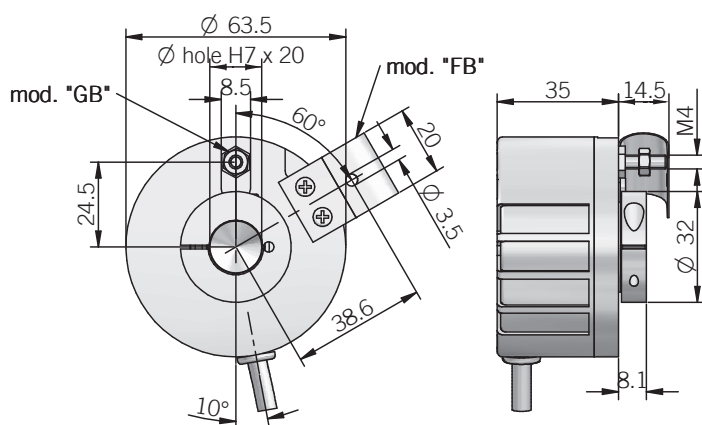
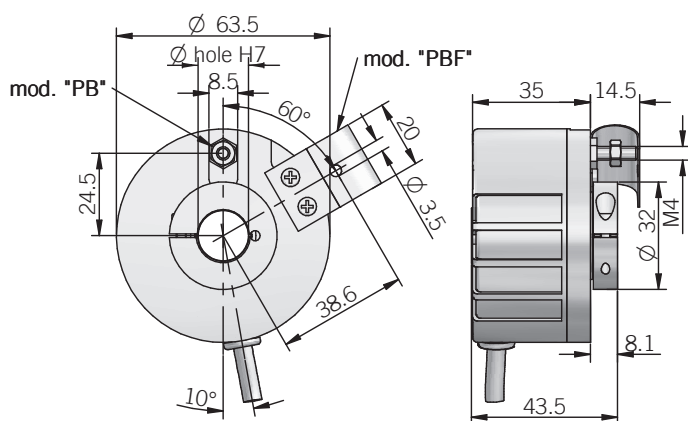
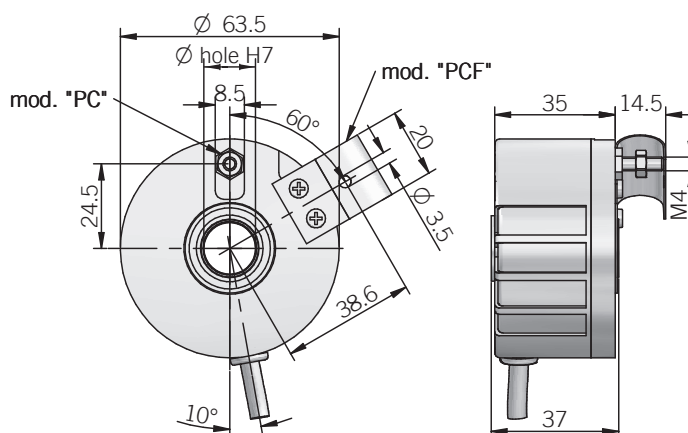


### Specifications

Hollow shaft encoder series for small AC motors, thanks to compact size (only 35mm height).

- 3 channel encoder (A / B / Z) up to 2500 ppr
- Power supply up to +28 VDC with several electronic interfaces available
- Up to 300 kHz output frequency
- Cable output, connector available on cable end
- Through or blind hollow shaft diameter up to 15 mm
- Shaft fixing by collar clamping

ORDERING CODE	EL	63GB	500	S	5/28	N	8	X	3	P	.XXX
<b>SERIES</b> incremental encoder <b>EL</b>											
<b>MODEL</b> blind hollow shaft with spring <b>63FB</b> blind hollow shaft with antirotation pin <b>63GB</b> through hollow shaft with antirotation pin <b>63PB</b> through hollow shaft with spring <b>63PBF</b> rear fixing shaft with antirotation pin <b>63PC</b> rear fixing shaft with spring <b>63PCF</b>											
<b>RESOLUTION</b> ppr from <b>1</b> to <b>2500</b> <i>see table for pulses availability</i>											
<b>ZERO PULSE</b> without zero pulse <b>S</b> with zero pulse <b>Z</b>											
<b>POWER SUPPLY</b> (with L electronic interface) 5 V DC <b>5</b> (with L or PC electronic interface) 8 ... 24 V DC <b>8/24</b> 5 ... 28 V DC <b>5/28</b>											
<b>ELECTRONIC INTERFACE</b> NPN <b>N</b> NPN open collector <b>C</b> push-pull <b>P</b> (AEIC-7272) protected push-pull <b>PC</b> line driver <b>L</b> power supply 5/28V - output RS-422 <b>RS</b>											
<b>BORE DIAMETER</b> mm <b>8</b> mm <b>10</b> mm <b>12</b> mm <b>14</b> mm <b>15</b>											
<b>ENCLOSURE RATING</b> IP 54 <b>X</b>											
<b>MAX ROTATION SPEED</b> 3000 rpm <b>3</b>											
<b>OUTPUT TYPE</b> radial cable (standard length 1,5 m) <b>PR</b>											
<b>VARIANT</b> custom version <b>XXX</b>											

**EL 63 FB / GB**

**EL 63 PB / PBF**

**EL 63 PC / PCF**


anti-rotation pin is included in model GB / PB / PC, for mounting instruction please refer to product installation notes

**ELECTRICAL SPECIFICATIONS**

<b>Resolution</b>	from 1 to 2500 ppr
<b>Power supply</b>	5 = 4,5 ... 5,5 V DC 5/28 = 4,75 ... 29,4 V DC 8/24 = 7,6 ... 25,2 V DC (reverse polarity protection)
<b>Power draw without load</b>	800 mW
<b>Max load current</b>	N / C / P / PC = 50 mA / channel L / RS = 20 mA / channel
<b>Output type*</b>	NPN / NPN open collector / push-pull / line driver
<b>Max output frequency</b>	300 kHz
<b>Counting direction</b>	A leads B clockwise (shaft view)
<b>Electromagnetic compatibility</b>	IEC 61000-6-2 IEC 61000-6-4

\*output levels according to power supply, for further details please see under Technical basics section

**MECHANICAL SPECIFICATIONS**

<b>Bore diameter</b>	ø 8 / 10 / 12 / 14 / 15 mm
<b>Enclosure rating</b>	IP 54 (IEC 60529)
<b>Max rotation speed</b>	3000 rpm
<b>Shock</b>	50 G, 11 ms (IEC 60068-2-27)
<b>Vibration</b>	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
<b>Moment of inertia</b>	4 x 10 <sup>-6</sup> kgm <sup>2</sup>
<b>Starting torque (at +20°C / +68°F)</b>	< 0,04 Nm
<b>Body material</b>	EN-AW 2011 aluminum
<b>Shaft material</b>	1.4305 / AISI 303 stainless steel
<b>Housing material</b>	PA 66 glass fiber reinforced
<b>Bearings</b>	2 ball bearings
<b>Bearings life</b>	10 <sup>9</sup> revolutions
<b>Operating temperature</b>	-10° ... +60 °C (+14° ... +140°F)
<b>Storage temperature</b>	-25° ... +70 °C (-13° ... +158°F)
<b>Fixing torque for collar clamping</b>	1,5 Nm recommended
<b>Weight</b>	350 g (12,35 oz)

**CONNECTIONS**

Function	Cable output N / C / P / PC	Cable output 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
⊥	shield	shield

**RESOLUTIONS**

1 - 2 - 5 - 20 - 25 - **32** - 50 - 60 - 100 - 128 - **200** - 250 - 256 - **360** - 400 - 500 - 512 - 600 - 720 - 1000 - **1024** - 1440 - 1800 - **2000** - 2048 - 2500

please directly contact our offices for other pulses, preferred resolutions in bold