

## MAIN FEATURES

∅ 120 through hollow shaft encoder series designed for motors with big shaft.

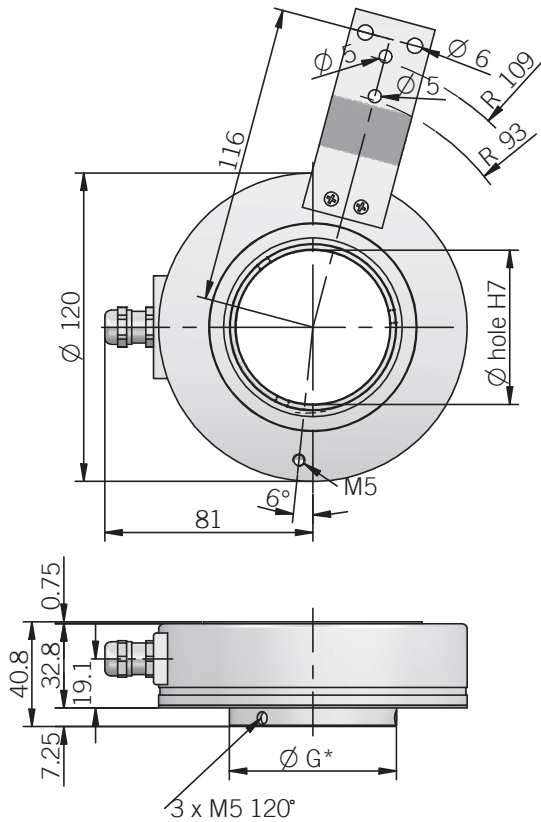
- Up to 60mm bore diameter
- Easy and steady fixing
- Sturdy mechanics
- Resolution up to 2048 ppr with zero signal
- Several output electronics
- Up to 28 V DC power supply
- Up to 105 KHz output frequency
- Up to 3000 rpm rotation speed
- Up to IP 54 sealing



## ORDERING CODE

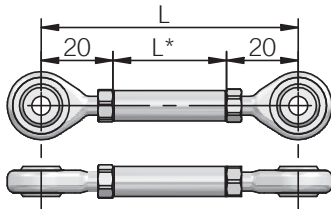
<b>EL 120 P 400 Z 5 N 50 X 3 PR . XXX</b>	
<p><b>SERIES</b> incremental encoder series <b>EL</b></p> <p><b>SIZE</b> mm <b>120</b></p> <p><b>TYPE</b> through hollow shaft <b>P</b></p> <p><b>RESOLUTION</b> ppr <b>400 / 800 / 1000 / 1024 / 1440 / 1600 / 2000 / 2048</b></p> <p><i>N.B.: please directly contact our offices for pulses availability</i></p> <p><b>ZERO PULSE</b> without zero pulse <b>S</b> with zero pulse <b>Z</b></p> <p><b>POWER SUPPLY</b> (available only with L electronic output) 5 V DC <b>5</b> (available only with L or PC electronic output) 8 ... 24 V DC <b>8/24</b> 5 ... 28 V DC <b>5/28</b></p>	<p><b>VARIANT</b> <b>XXX</b> custom version</p> <p><b>OUTPUT TYPE</b> <b>PR</b> cable output radial with cable glang (standard length 0.5 m)</p> <p><b>MAX ROTATION SPEED</b> <b>3</b> 3000 rpm</p> <p><b>ENCLOSURE RATING</b> <b>X</b> IP 54</p> <p><b>BORE DIAMETER</b> 40 mm 50 mm 60 mm</p> <p><b>ELECTRONIC INTERFACE</b> <b>N</b> NPN <b>C</b> NPN open collector <b>P</b> push-pull <b>PC</b> protected push-pull (AEIC-7272) <b>L</b> line driver</p>

## EL 120 P



*G	*G
∅ 40 H7	∅ 65
∅ 50 H7	∅ 65
∅ 60 H7	∅ 75

## Accessories



## Accessories - Torque arm

Length	Ordering code
L* = 30 mm	SN5A30
L* = 60 mm	SN5A60
L* = 90 mm	SN5A90

*Torque arm MUST be ordered separately*

## Electrical specifications

<b>Resolution</b>	400/800/1000/1024/1440/1600/2000/2048 ppr
<b>Power supply</b>	5 V DC ± 10% 5 ... 28 V DC ± 5% 8 ... 24 V DC ± 5% (reverse polarity protection)
<b>Current consumption without load</b>	100 mA max
<b>Max load current</b>	50 mA for channel 20 mA for channel (line driver)
<b>Output type</b>	NPN / NPN open collector / push-pull / line driver
<b>Max output frequency</b>	105 kHz
<b>Counting direction</b>	A leads B clockwise (shaft view)
<b>Electromagnetic compatibility</b>	IEC 61000-6-2 IEC 61000-6-4

## Mechanical specifications

<b>Bore diameter</b>	∅ 40 / 50 / 60 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>Shaft material</b>	EN-AW 2011 aluminum
<b>Housing material</b>	EN-AW 2011 aluminum
<b>Bearings</b>	2 ball bearings
<b>Bearings life</b>	10 <sup>9</sup> revolutions
<b>Operating temperature</b>	0° ... +60 °C
<b>Storage temperature</b>	-25° ... +70 °C
<b>Weight</b>	750 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
≡	shield	shield

## EL120P mounting instructions

1. Couple encoder shaft with motor shaft
2. Fix spring to motor flange without tightening it
3. Fix encoder shaft on motor shaft
4. Fix spring

