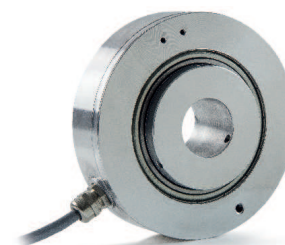


MAIN FEATURES

∅ 120 mm through hollow shaft encoder designed for medium / big size motors.

- 3 channel encoder (A / B / Z) up to 2048 ppr
- Power supply up to +24 VDC with several electronic interfaces available
- Up to 105 kHz output frequency
- Cable output, connector available on cable end
- Through hollow shaft diameter up to 60 mm
- Shaft fixing by grub screws

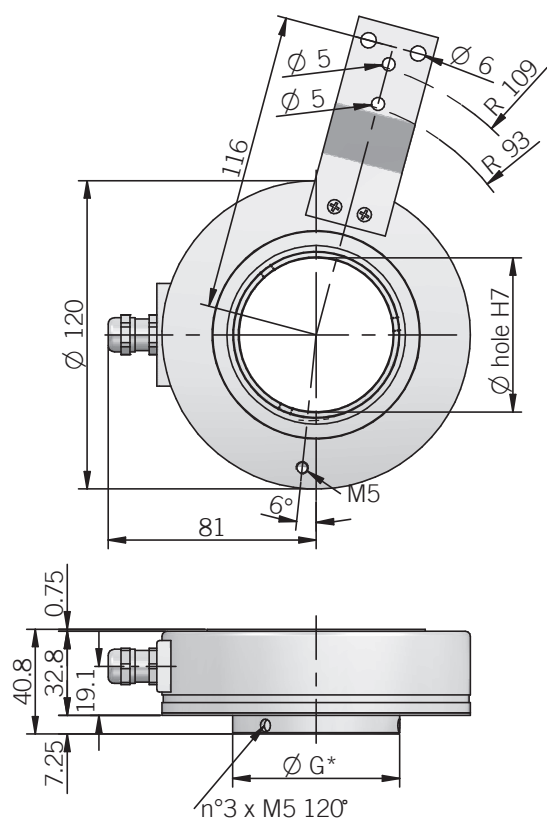


ORDERING CODE

EL 120P 1024 S 5/28 P 50 X 3 PR .XXX

SERIES incremental encoder series EL	MODEL through hollow shaft with spring 120P	RESOLUTION ppr from 400 to 2048 <i>see table for pulses availability</i>	ZERO PULSE without zero pulse S with zero pulse Z	POWER SUPPLY (with L electronic interface) 5 V DC 5 (with L or PC electronic interface) 8 ... 24 V DC 8/24 5 ... 28 V DC 5/28	ELECTRONIC INTERFACE NPN N NPN open collector C push-pull P push-pull protected (AEIC-7272) PC line driver L	BORE DIAMETER mm 40 mm 50 mm 60	ENCLOSURE RATING IP 54 X	MAX ROTATION SPEED 3000 rpm 3	OUTPUT TYPE radial cable (standard length 0,5 m) PR	VARIANT custom version XXX
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EL 120 P

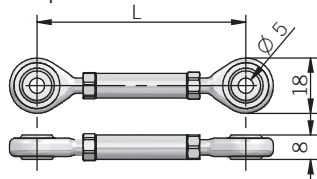


SHAFT DIAMETER	*G
∅ 40	∅ 65
∅ 50	∅ 65
∅ 60	∅ 75

dimensions in mm

ACCESSORIES

Torque arm



Length	Ordering code
L = 80 ± 10mm	SN5A30 (P/N 94010061)
L = 110 ± 10mm	SN5A60 (P/N 94010070)
L = 140 ± 10mm	SN5A90 (P/N 94010071)

With torque arm n° 2 M5 x 12 UNI ISO 7380 are included

ELECTRICAL SPECIFICATIONS

Resolution	from 400 to 2048 ppr
Power supply	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)
Current consumption without load	100 mA max
Max load current	N / C / P / PC = 50 mA / channel L = 20 mA / channel
Output type*	NPN / NPN open collector / push-pull / line driver
Max output frequency	105 kHz
Counting direction	A leads B clockwise (shaft view)
Electromagnetic compatibility	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

Bore diameter	∅ 40 / 50 / 60 mm
Enclosure rating	IP 54 (IEC 60529)
Max rotation speed	3000 rpm
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	approx 215 x 10 ⁻⁶ kgm ²
Starting torque (at +20°C / +68°F)	< 0,05 Nm
Body material	EN-AW 2011 aluminum
Shaft material	EN-AW 2011 aluminum
Housing material	EN-AW 2011 aluminum
Bearings	2 ball bearings
Bearings life	10 ⁹ revolutions
Operating temperature	0° ... +60 °C (+32° ... +140°F)
Storage temperature	-25° ... +70 °C (-13° ... +158°F)
Fixing torque for grub screws	max 0,75 Nm
Weight	750 g (26,46 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

400 - 800 - 1000 - **1024** - 1440 - 1600 - 2000 - **2048**

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