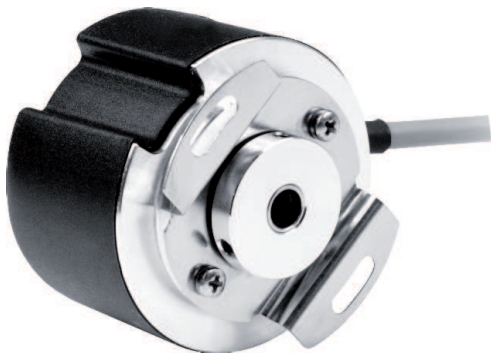




EL 48 C / P

THROUGH HOLLOW SHAFT INCREMENTAL ENCODER



Specifications

Hollow shaft \varnothing 48 mm encoder series recommended for motor feedback.

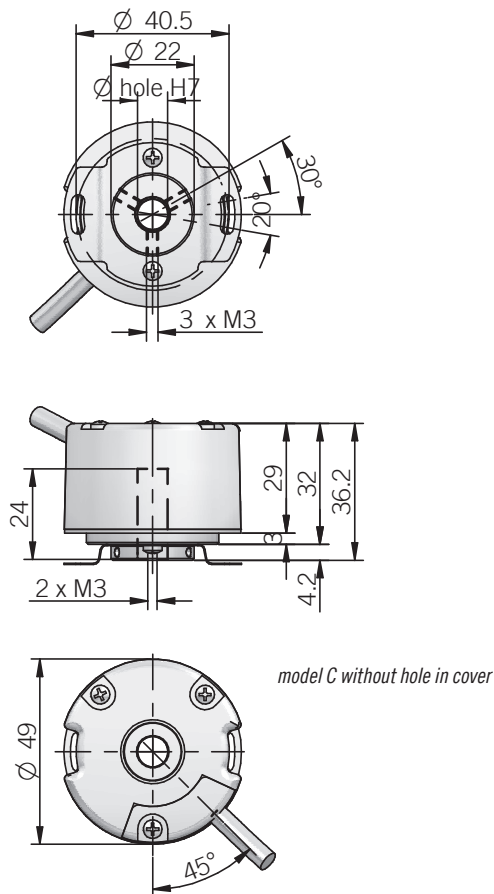
- 3 channel encoder (A / B / Z) up to 2048 ppr
- Power supply up to +24 VDC with several electronic interfaces available
- Up to 150 kHz output frequency
- Cable output, connectors available on cable end
- Through hollow shaft diameter up to 8 mm
- Mounting by stator coupling

ORDERING CODE **EL 48C 500 S 5 L 8 X 6 PR .XXX**

SERIES incremental encoder series EL												
MODEL blind hollow shaft 48C through hollow shaft 48P												
RESOLUTION ppr from 100 to 2048 <i>see table for pulses availability</i>												
ZERO PULSE without zero pulse S with zero pulse Z												
POWER SUPPLY 5 V DC 5 8 ... 24 V DC 8/24												
ELECTRONIC INTERFACE NPN N NPN open collector C push-pull P push-pull protected (AEIC-7272) PC line driver L												
BORE DIAMETER mm 6 mm 8												
ENCLOSURE RATING IP 40 X												
MAX ROTATION SPEED 6000 rpm 6												
OUTPUT TYPE radial cable (standard length 0,3 m) PR												
VARIANT custom version XXX												



EL 48 C / P



dimensions in mm

ELECTRICAL SPECIFICATIONS

Resolution	from 100 to 2048 ppr
Power supply	5 = 4,5 ... 5,5 V DC 8/24 = 7,6 ... 25,2 V DC
Current consumption without load	100 mA max
Max load current	N / C / P / PC = 30 mA / channel L = 20 mA / channel
Output type*	NPN / NPN open collector / push-pull / line driver
Max output frequency	150 kHz
Counting direction	A leads B clockwise (shaft view)
Electromagnetic compatibility	IEC 61000-6-1 IEC 61000-6-3

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

MECHANICAL SPECIFICATIONS

Bore diameter	ø 6 / 8 mm
Enclosure rating	IP 40 (IEC 60529)
Max rotation speed	6000 rpm
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	10 G, 10 ... 500 Hz (IEC 60068-2-6)
Moment of inertia	2,5 x 10 ⁻⁶ kgm ²
Starting torque (at +20°C / +68°F)	< 0,01 Nm
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	-20° ... +85 °C (-4° ... +185°F)
Storage temperature	-25° ... +85°C (-13° ... +185°F)
Weight	100 g (3,53 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

100 - 200 - 360 - 400 - 500 - 512 - 1000 - 1024 - 2000 - 2048

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