

MAIN FEATURES

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 V DC with several electrical interfaces available
- Up to 150 kHz output frequency
- Cable output, connector available on cable end
- Through hollow shaft diameter up to 8 mm
- Mounting by stator coupling

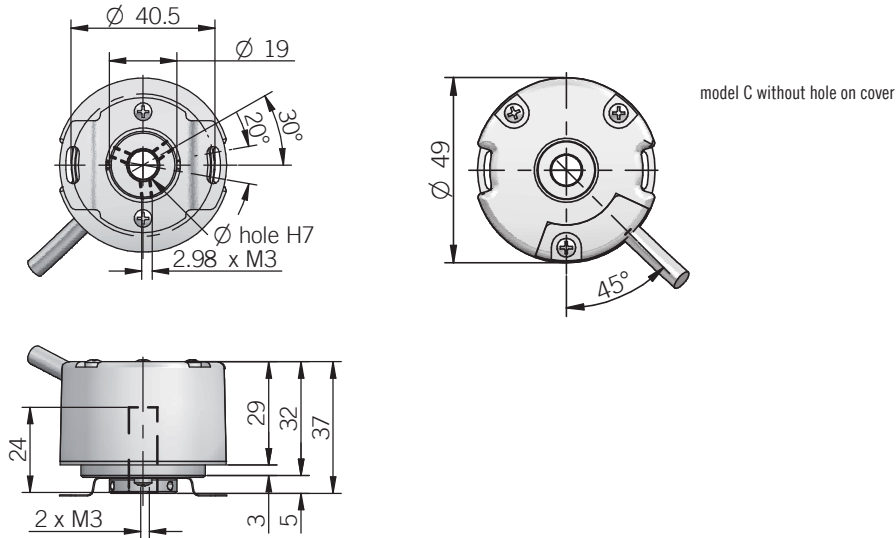


ORDERING CODE

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 refer to the available pulses list											
ZERO PULSE without zero pulse S with zero pulse Z											
POWER SUPPLY (with L electrical interface) 5 V DC 5 8 ... 24 V DC 8/24											
ELECTRICAL INTERFACE NPN open collector C push-pull P 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 preferred cable lengths 1,5 / 2 / 3 / 5 / 10 m, to be added after OUTPUT TYPE (eg. PR5)											
VARIANT custom version XXX											

48 C / P



dimensions in mm

ELECTRICAL SPECIFICATIONS

Resolution	from 100 to 2048 ppr
Power supply¹	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	C / P = 30 mA / channel L = 20 mA / channel
Electrical interface²	NPN open collector (pull-up max +30V DC) push-pull / line driver HTL (AEIC-7272) line driver RS-422 (AELT-5000 or equivalent)
Max output frequency	150 kHz
Counting direction	A leads B clockwise (shaft view)
Electromagnetic compatibility	according to 2014/30/EU directive
RoHS	according to 2015/863/EU directive
UL / CSA	certificate n. E212495

CONNECTIONS

Function	Cable C / P	Cable L
+V DC	red	red
0 V	black	black
A+	green	green
A-	/	brown or grey
B+	yellow	yellow
B-	/	orange
Z+	blue	blue
Z-	/	white
⊥	shield	shield

MECHANICAL SPECIFICATIONS

Bore diameter	∅ 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 (59 x 10 ⁻⁶ lbft ²)
Starting torque (at +20°C / +68°F)	< 0,01 Nm (1,42 Ozin)
Bearing stage material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	PA 66 glass fiber reinforced
Bearings	n.2 ball bearings
Bearings life	10 ⁹ revolutions
Operating temperature^{3,4}	-20° ... +85 °C (-4° ... +185°F)
Storage temperature⁴	-25° ... +85°C (-13° ... +185°F)
Weight	100 g (3,53 oz)

¹ as measured at the transducer without cable influences² for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section³ measured on the transducer flange⁴ condensation not allowed

RESOLUTIONS

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

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