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TECHNOLOGY GROUP

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Find the *Eltra EL48P512S5L8X6PR1.5* at our website: *Click HERE*

EL 48 C / P

THROUGH HOLLOW SHAFT INCREMENTAL ENCODER

MAIN FEATURES

Hollow shaft ø 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

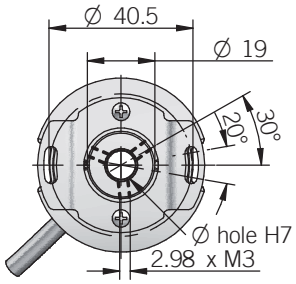
MAX ROTATION SPEED
6000 rpm 6

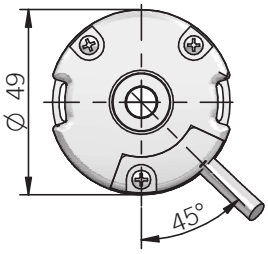
OUTPUT TYPE
radial cable (standard length 0,3 m) PR
preferred cable lengths 1,5 / 2 / 3 / 5 / 10 m, to be added after OUTPUT TYPE (eg. PR5)

VARIANT
custom version XXX

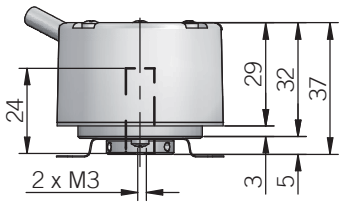
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48 C / P





model C without hole on cover



dimensions in mm

ELECTRICAL SPECIFICATIONS

Resolution	from 100 to 2048 ppr
Power supply[1]	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 interface[2]	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	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 (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 temperature[4]	-25° ... +85°C (-13° ... +185°F)
Weight	100 g (3,53 oz)

[1] as measured at the transducer without cable influences
[2] for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section
[3] measured on the transducer flange
[4] 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

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