



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, connectors available on cable end
- · Through hollow shaft diameter up to 8 mm
- · Mounting by stator coupling







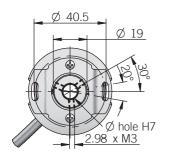


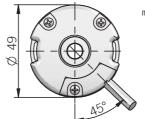
| ORDERING CODE | EL | 48C | 500 | S | 5 | L | 8 | X | 6 | PR | . XXX |
|---------------|---|---|--|--|---|---|--------------------------------------|------------------------------------|-----------------------------|----------|---------|
| URDERING CUDE | SERIES incremental encoder series EL blind hollow s through hollow s | MODEL haft 48C haft 48P RES from 100 e available | SOLUTION) to 2048 pulses list ZEI without zei | RO PULSE TO pulse S TO pulse Z POWEF al interface) 8 24 V ELEC | R SUPPLY 5 V DC 5 7 DC 8/24 TRICAL IN PN open c pu | ITERFACE Ollector C ISSH-pull P e driver L BORE D | DIAMETER mm 6 mm 8 ENCLOSUR | RE RATING IP 40 X AX ROTATIC | N SPEED 00 rpm 6 0UTI | PUT TYPE | . XXX |
| | | | preferred o | able length | s 1,5 / 2 / 3 | /5/10 m, | | d after OUTP | | . PR5) | VARIANT |

custom version XXX

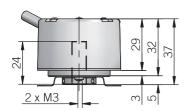


48 C / P





model C without hole on cover



recommended mating shaft tolerance g6 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 similar) | |
| Max output frequency | 150 kHz | |
| Counting direction | A leads B clockwise (shaft view) | |
| Electromagnetic compatibility | according to 2014/30/EU directive | |
| RoHS | according to 2011/65/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 | | |
| В- | / | orange | | |
| Z+ | blue | blue | | |
| Z- | / | white | | |
| _ | shield | shield | | |

| MECHANICAL SPECIFICATIONS | | |
|---------------------------------------|--|--|
| Bore diameter | ø6/8 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) | |

as measured at the transducer without cable influences

RESOLUTIONS

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

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





 $^{^{\}rm 2}$ for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section

³ measured on the transducer flange

⁴ condensation not allowed