

MAIN FEATURES

Miniaturized \varnothing 42 encoder series for general applications.

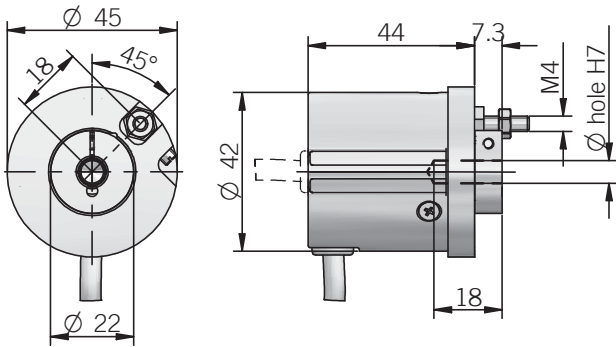
- Up to 2500 ppr with zero signal
- Several output types available
- Up to 28 V DC power supply
- Up to 220 kHz output frequency
- Cable output
- Up to 3000 RPM rotation speed
- Up to IP 54 sealing



ORDERING CODE

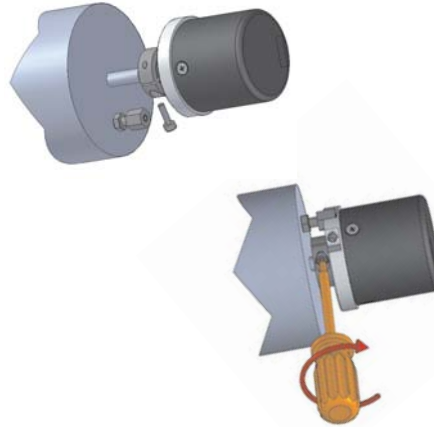
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|---|-----------------------------|---|---|--|--|---|--------------------------------------|---|---|--|--|---|
| SERIES incremental encoder series EL incremental encoder series ER | SIZE mm 40 | TYPE blind hollow shaft with anti-rotation pin G | RESOLUTION (see table) ppr from 1 to 2500 <i>N.B.: please directly contact our offices for pulses availability</i> | ZERO PULSE without zero pulse S with zero pulse Z | POWER SUPPLY (available only with L electronic output) 5 V DC 5 (available only with L or PC electronic output) 8 ... 24 V DC 8/24 5 ... 28 V DC 5/28 | ENCLOSURE RATING X IP 54 | SHAFT DIAMETER 6 mm | ELECTRONIC INTERFACE N NPN C NPN open collector P push-pull PC protected push-pull (AEIC-7272) L line driver | OUTPUT TYPE P cable output (standard length 0.5 m) | MAX ROTATION SPEED 3 3000 rpm | DIRECTION TYPE A axial R radial | VARIANT XXX custom version |
|---|-----------------------------|---|---|--|--|---|--------------------------------------|---|---|--|--|---|

EL - ER 40 G



Mounting instructions

1. Fix anti-rotation pin on motor flange
2. Couple encoder shaft with motor shaft, making sure pin is inserted in the hole on the front part of the encoder (maintaining a minimum distance of 0.5 mm).
3. Fix encoder shaft on motor shaft



Electrical specifications

| | |
|---|--|
| Resolution | from 1 to 2500 ppr |
| Power supply | 5 V DC \pm 10% 5 ... 28 V DC \pm 5% 8 ... 24 V DC \pm 5% (reverse polarity protection) |
| Current consumption without load | 100 mA max |
| Max load current | 50 mA for channel 20 mA for channel (line driver) |
| Output type | NPN NPN open collector push-pull line driver |
| Max output frequency | 150 kHz EL series 220 kHz ER series |
| Counting direction | A leads B clockwise (shaft view) |
| Electromagnetic compatibility | IEC 61000-6-2 IEC 61000-6-4 |

Mechanical specifications

| | |
|------------------------------|--|
| Shaft diameter | ϕ 6 mm |
| Enclosure rating | IP 54 (IEC 60529) |
| Max rotation speed | 3000 rpm |
| Max shaft load | 5 N (0.5 kgf) axial 5 N (0.5 kgf) radial |
| Shock | 50 G, 11 ms (IEC 60068-2-27) |
| Vibration | 10 G, 10 ... 2000 Hz (IEC 60068-2-6) |
| 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 | -10° ... +60°C series EL -20° ... +70°C series ER |
| Storage temperature | -25° ... +70°C |
| Weight | 150 g |

Connections and standard colours

| Function | Push pull / Npn / Npn open collector | 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 |
| \equiv | shield | shield |

ER series resolutions

100 - 120 - 128 - 150 - 200 - 240 - 250 - 256 - 300 - 360 - 400 - 480 - 500 - 512 - 600 - 625 - 720 - 750 - 800 - 900 - 1000 - 1024 - 1200 - 1250 - 1440 - 1500 - 1600 - 1800 - 2000 - 2048 - 2500

EL series resolutions

1 - 2 - 4 - 5 - 10 - 15 - 16 - 20 - 30 - 32 - 40 - 50 - 70 - 80 - 90 - 160 - 180 - 350 - 450 - 660 - 700