



INCREMENTAL ROTARY ENCODERS

Series RE50

- **Incremental rotary encoders with or without zero pulse**
- **Pulses per revolution: 2 to 12500**
- **Aluminium housing**
- **Body Ø 50 mm, length 48 mm**

RE50

Bidirectional encoder with or without zero pulse • PPR: 2 to 12500

Body Ø 50 mm • Length 48 mm • Round flange Ø 50 mm • 3 fixing holes M5 120° on Ø 36 mm

Shaft Ø 10, 8 or 6 mm

Connections by cable 1 m long or M12 connector placed axially

Aluminium housing

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| | |
|-------------------------------------|---------------------------------|
| • Materials: case shaft | Aluminium Steel AISI 303 |
| • Weight | 210 g ca. |
| • Shaft Ø | 10, 8 or 6 mm |
| • Revolutions/minute | 6000 continuous/10000 temporary |
| • Starting torque | ≤0,8 Ncm |
| • Inertia | ≤25 g cm ² |
| • Max load | 80 N axial/100 N radial |
| • Vibration resistance (10÷2000 Hz) | 100 m/sec ² |
| • Shock resistance (11 ms) | 50 G |
| • Protection degree | IP64 |
| • Operating temperature | -10 ÷ 70°C |
| • Stocking temperature | -20 ÷ 80°C |

ELECTRICAL & OPERATING SPECIFICATIONS

| | |
|---------------------|--|
| • Pulse code | Incremental |
| • Pulses/revolution | 2 ÷ 12500 |
| • Zero pulse | One pulse/revolution (RE51) |
| • Output signals | Two square waves 90° ±15° out of phase – Zero pulse width: 90°±15° |
| • Electronic output | push-pull, line driver 5Vdc or 8/24Vdc signals protected against short circuits |
| • Supply voltage | 5Vdc or 8/24Vdc protection against polarity reversal |
| • Absorption | 30÷80 mA max |
| • Max. frequency | 100 KHz |
| • Connections | Axial cable 1 m long 5-pin M12 axial plug connector 8-pin connector for line driver output Optional: tap connector with cable |

CONNECTIONS

| Push Pull SIGNALS | 5-pin connector | | Line Driver SIGNALS | 8-pin connector | |
|-------------------|-----------------|---------------|---------------------|-----------------|---------------|
| | pin | Cable colours | | pin | Cable colours |
| Out 1 | pin 2 | White | Out 1 | pin 1 | White |
| Out 2 | pin 4 | Green | Out 2 | pin 3 | Green |
| Out Z (RE51 only) | pin 5 | Brown | Out Z (RE51 only) | pin 5 | Grey |
| + Vdc | pin 1 | Red | + Vdc | pin 8 | Red |
| 0V | pin 3 | Blue | 0V | pin 7 | Blue |
| | | Shield | Out 1 | pin 2 | Brown |
| | | | Out 2 | pin 4 | Yellow |
| | | | Out Z (RE51 only) | pin 6 | Pink |
| | | | | | Shield |





RE50

RE50

RE50

ORDERING INFORMATION

| | | | | | | |
|-------------|----------|------------|-------------|----------|-----------|---|
| RE50 | C | 100 | 8/24 | A | 10 | PP |
| | | | | | | OUTPUT SIGNALS PP Push-pull LD Line-driver LD5V Line driver 5 Vcc |
| | | | | | | SHAFT Ø 10 mm - 8 mm - 6 mm |
| | | | | | | CONNECTIONS POSITION A Axial |
| | | | | | | SUPPLY VOLTAGE 8/24 Vdc 5 Vdc |
| | | | | | | PULSES/REV. 2-12500 |
| | | | | | | CONNECTION OUTLET - M12 Connector C Cable |

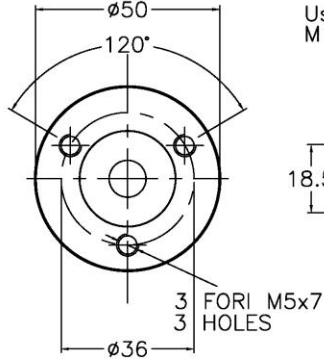
TYPE

RE50 Bidirectional, no zero pulse, 2÷12500 ppr

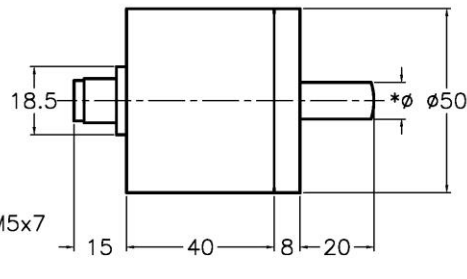
RE51 Bidirectional, one zero pulse, 2÷12500 ppr

VARIATIONS ADMITTED WITHOUT NOTICE

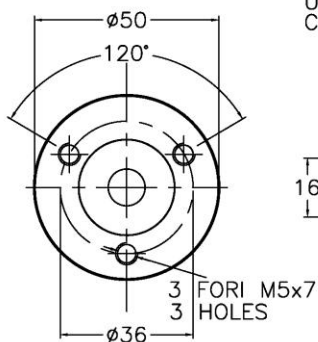
DIMENSIONS



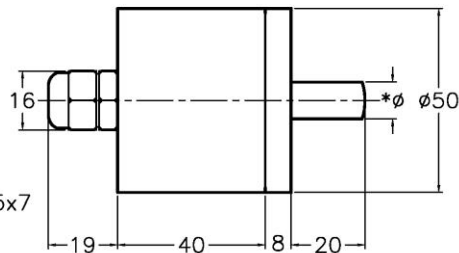
Uscita Cannellore M12
M12 Connector Outlet



- * ALBERO DISPONIBILE
Nei diametri 8mm-10mm
diametro 6mm lunghezza 10mm
- * AVAILABLE SHAFT DIAMETERS
8mm-10mm
shaft diameter 6mm length 10mm



Uscita Cavo
Cable Outlet



- * ALBERO DISPONIBILE
Nei diametri 8mm-10mm
diametro 6mm lunghezza 10mm
- * AVAILABLE SHAFT DIAMETERS
8mm-10mm
shaft diameter 6mm length 10mm

Dimensional drawing available at:
<http://www.elap.it/incremental-encoders/encoder-re50.html>



ELAP VIA VITTORIO VENETO, 4 - I-20094 CORSICO (MI) TEL. ++39.02.4519561
FAX ++39.02.45103406 E-MAIL: INFO@ELAP.IT URL: WWW.ELAP.IT