



EL 50 FA / FP / GA / GP

INCREMENTAL
ENCODER



Main characteristics

Ø50 encoder series used on motors.

- Several way to fix it
- Easy mechanical mounting
- Contained dimensions
- Up to 2.048 ppr with zero
- Several output types available
- Up to 6.000 rpm speed rotation
- IP55 sealing



Ordering code

EL 50 G P 1000 Z 5/28 P 8 X 3 P R . XXX

Full stop to separate special versions.

Incremental encoder series **EL**

body dimension **50**

fixed with spring **F**
fixed with pin **G**

encoder with front side fixing **A**
encoder with back side fixing **P**

Resolutions

PPR: from 1 to **2048**

Please, directly contact our offices for pulses availability

Zero pulse

without zero pulse **S**
with zero pulse **Z**

Input voltage

input voltage **5 ÷ 28**

LINE DRIVER available only with input voltage 5 Vdc 8 - 24 Vdc

R radial

P cable output (standard length 0,5 m)

R.P.M.

3 3000
6 6000

3000 RPM MAX with "S" enclosure rating

Enclosure rating

X standard IP40
S optional IP55

Bore diameter

6 ø 6 H7 mm
8 ø 8 H7 mm
9 ø 9.52 H7 mm (3/8")
10 ø 10 H7 mm

Output types

N NPN
C NPN OPEN COLLECTOR
P PUSH PULL
L LINE DRIVER

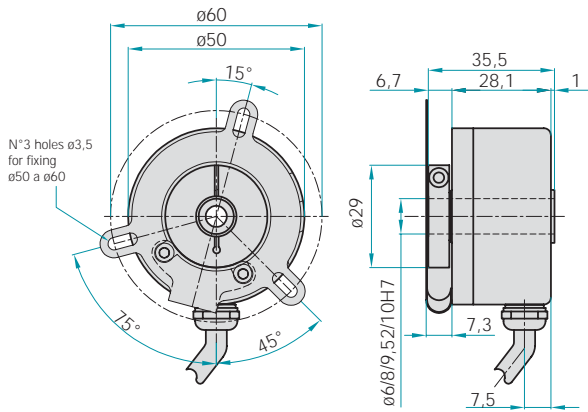
For optionals about output types please refer to incremental outputs section

Special version code numbered from 001 to 999

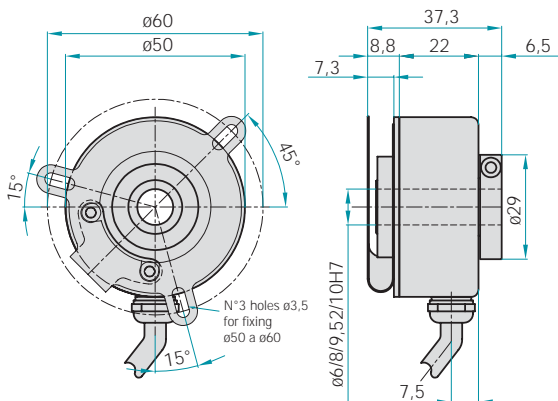
Hollow shaft incremental encoder

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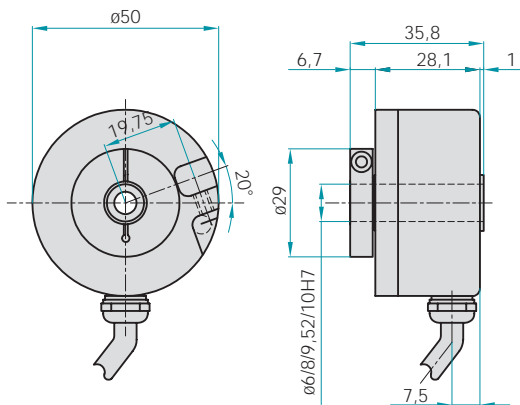
EL 50 FA



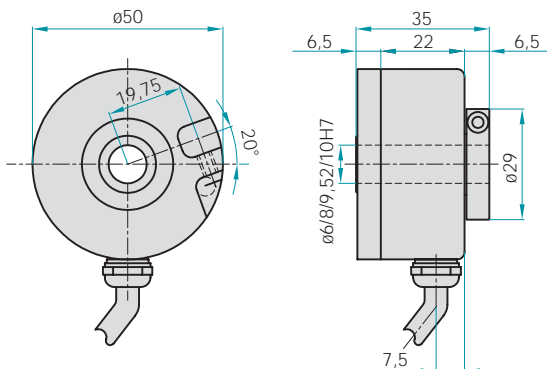
EL 50 FP



EL 50 GA



EL 50 GP

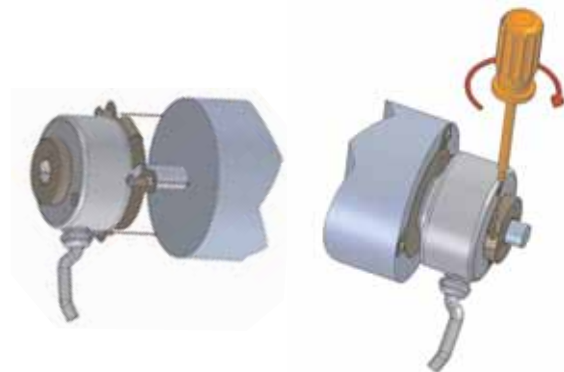


Electrical specifications

Resolution	from 1 to 2048 PPR
Input voltage	5 ÷ 28 Vdc LINE DRIVER only available with input voltage 5/8 ÷ 24 Vdc
Input current with no output load	150 mA Max
Source and sink current	30 mA for channel 15 mA for channel LINE DRIVER
Output types	NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER
Output frequency	150 KHz Max
Frequency response	$F = \frac{\text{RPM} \times \text{Resolution}}{60}$

Mechanical specifications

Bore diameter	6 - 8 - 9.52 (3/8") - 10 mm H7
Enclosure rating	IP40 - Standard IP55 - Optional
Shaft speed	3000 RPM 6000 RPM 3000 RPM MAX with "S" enclosure rating
Shock	50 G for 11 msec
Vibrations	5G 10 ÷ 500 Hz
Bearings life	10 ⁹ revolutions
Bearings	n° 2 ball bearings
Shaft material	Stainless steel AISI303
Body material	Aluminium D11S - UNI 9002/5
Housing material	Aluminium D11S - UNI 9002/5
Operating temperature	0° ÷ +60°C
Storage temperature	-25° ÷ +70°C



HOW TO MOUNT IT

- 1) Couple the encoder shaft with the motor shaft
- 2) Fix the spring at the motor flanges without screwing it
- 3) Fix the encoder shaft by the metal gear
- 4) Turn for phasing
- 5) Block the spring