Industrial automation
Elincom Group
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Eltra® sensing technology

# EH 38 A / B / D

INCREMENTAL ENCODER



## MAIN FEATURES

Miniaturized ø 38 encoder series. Recommended when a minimal size is required even providing excellent performances.

- Up to 1024 ppr with zero signal
- Several output types available
- Up to 24 V DC power supply
- Up to 100 kHz output frequency
- Cable output
- Up to 3000 RPM rotation speed
- Up to IP 54 sealing

## ORDERING CODE

**EH 38 A 500 Z 5 N 6 X 3 PR . XXX**

**SERIES**
incremental encoder series EH

**SIZE**
mm 38

**TYPE**
fixing flange ø 20 mm A
square flange □ 36,5 mm B
square flange □ 32 mm D

**RESOLUTION**
ppr from 50 to 1024
*N.B.:please directly contact our offices for pulses availability*

**ZERO PULSE**
without zero pulse S
with zero pulse Z

**POWER SUPPLY**
5 V DC 5
8 ... 24 V DC 8/24

**ELECTRONIC INTERFACE**
N NPN
C NPN open collector
P push-pull
PC protected push-pull (AEIC-7272)
L line driver

**SHAFT DIAMETER**
6 mm

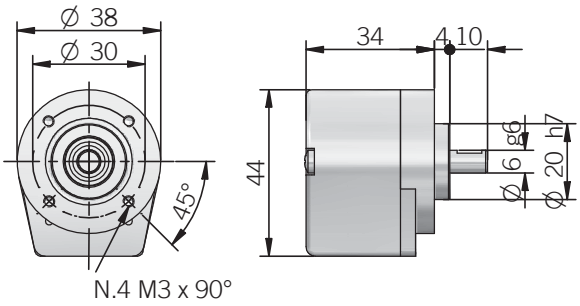
**ENCLOSURE RATING**
X IP 54

**MAX ROTATION SPEED**
3 3000 rpm

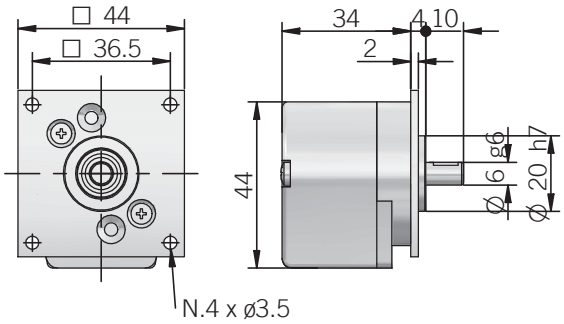
**OUTPUT TYPE**
PR radial cable output radial (standard length 0.5 m)

**VARIANT**
XXX custom version

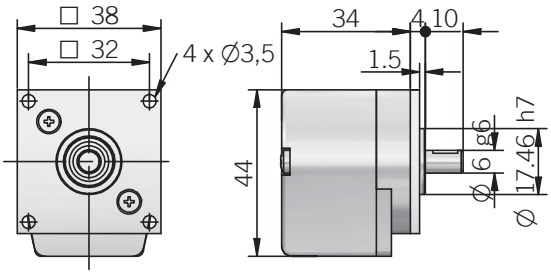
## EH 38 A




## EH 38 B




## EH 38 D




## Electrical specifications

| | |
|---|---|
| **Resolution** | from 50 to 1024 ppr |
| **Power supply** | 5 V DC ± 10%<br>8 ... 24 V DC ± 5% |
| **Current consumption without load** | 100 mA max |
| **Max load current** | 50 mA for channel<br>20 mA for channel (line driver) |
| **Output type** | NPN<br>NPN open collector<br>push-pull<br>line driver |
| **Max output frequency** | 100 kHz |
| **Counting direction** | A leads B clockwise (shaft view) |
| **Electromagnetic compatibility** | IEC 61000-6-1<br>IEC 61000-6-4 |

## Mechanical specifications

| | |
|---|---|
| **Shaft diameter** | ø 6 mm |
| **Enclosure rating** | IP 54 (IEC 60529) |
| **Max rotation speed** | 3000 rpm |
| **Max shaft load** | 5 N (0.5 kp) axial<br>5 N (0.5 kp) radial |
| **Shock** | 50 G, 11 ms (IEC 60068-2-27) |
| **Vibration** | 10 G, 10 ... 2000 Hz (IEC 60068-2-6) |
| **Body material** | aluminum UNI 5076 |
| **Shaft material** | 1.4305 / AISI 303 stainless steel |
| **Housing material** | PA66 glass fiber reinforced |
| **Bearings** | 2 ball bearings |
| **Bearings life** | $10^9$ revolutions |
| **Operating temperature** | -20° ... +70°C |
| **Storage temperature** | -25° ... 70°C |
| **Weight** | 100 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 |
| ⏚ | shield | shield |

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