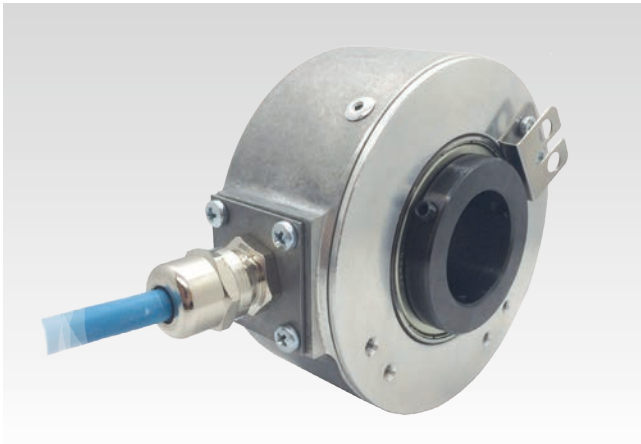


# Incremental encoders

Resolution up to 10,000 pulses



## FNC 80H Series



### Features

- Industry 80 mm standard size
- Through hollow shaft
- Robust mechanical and electrical construction
- Protection up to IP67
- Up to 10,000 ppr max.
- <300 kHz frequency

### Technical data-electrical ratings

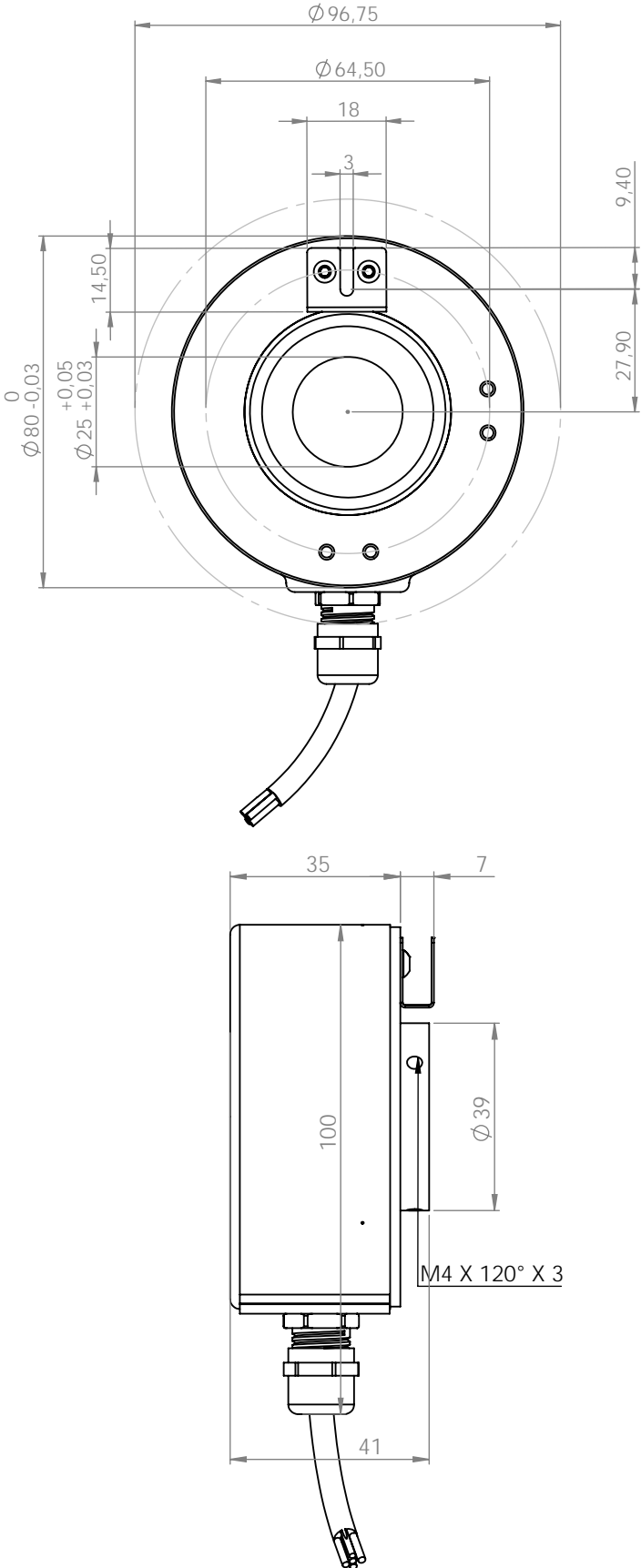
|                          |  |
|--------------------------|--|
| Voltage supply           | 4.75VDC to 30VDC<br>4.75VDC to 5.5VDC  |
| Protection               | Output short circuit protection.<br>Reverse polarity protection<br>(except 5V version) |
| Consumption w/o load     | ≤60 mA (24 VDC)  |
| Resolution (steps/turn)  | up to 10,000 ppr   |
| Reference signal         | Zero pulse, width 90°<br>180°, 360° optional   |
| Optoelectronic life time | 100.000 (min)  |
| Output frequency         | >200 kHz   |
| Output signals           | 90° shifted A and B,<br>Z+ inverted  |
| Output circuit           | Linedriver / RS422<br>Push-pull short-circuit proof<br>NPN Open Collector              |
| Interference immunity    | DIN EN 61000-6-2   |
| Emitted interference     | DIN EN 61000-6-4   |
| Approval                 | CE   |

### Technical data-mechanical ratings

|                         |  |
|-------------------------|--|
| Dimensions (flange)     | Ø80 mm   |
| Shaft loading           | ≤120 N axial<br>≤160 N radial  |
| Protection DIN EN 60529 | IP54, IP65   |
| Operating speed         | ≤10,000 rpm  |
| Starting torque         | ≤0.025 Nm (IP67)   |
| Materials               | Housing: aluminum<br>Flange: aluminum<br>Shaft: stainless steel                      |
| Shaft diameter          | 10, 12, 14, 15, 16, 17, 18, 19,<br>20, 22, 24, 25 mm<br>(other diameters on request) |
| Bearings lifetime       | 2x10 <sup>9</sup> rev. at 100% of full rated<br>shaft load (minimum)                 |
| Operating temperature   | -20...+85°C  |
| Storage temperature     | -30°C up to +90°C  |
| Weight approx.          | 250 g  |

FNC 80H Series

Mechanical Dimensions



# Incremental encoders

Cable / Connector Wiring, Part Number



## FNC 80H Series

### Cable Connection

| Function | Color  | Renk    | Farbe   | Цвет       | 颜色  |
|----------|--------|---------|---------|------------|-----|
| +VB      | Brown  | Kahve   | Braun   | Коричневый | 棕色的 |
| GND      | White  | Beyaz   | Wei    | Белый      | 白色的 |
| A        | Green  | Yeil   | Grn    | Зеленый    | 绿   |
| A'       | Red    | Kırmızı | Rot     | Красный    | 红色的 |
| B        | Yellow | Sarı    | Gelb    | Желтый     | 黄色的 |
| B'       | Pink   | Pembe   | Rosa    | Розовый    | 粉色的 |
| Z        | Gray   | Gri     | Grau    | Серый      | 灰色的 |
| Z'       | Blue   | Mavi    | Blau    | Синий      | 蓝色的 |
| Shield   | Black  | Siyah   | Schwarz | Чернить    | 黑色的 |

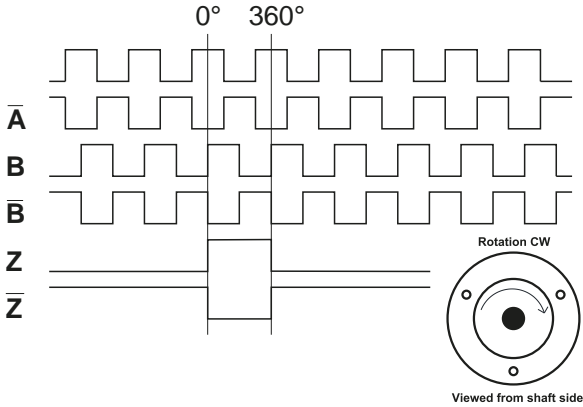
### Connector Connection

| Function   | R2312R    | R1205 | R1208 | R1505 | R1508 | R1608 |
|------------|-----------|-------|-------|-------|-------|-------|
| +VB        | pin 2-12  | pin 1 | pin 1 | pin 1 | pin 1 | pin 1 |
| GND        | pin 10-11 | pin 2 | pin 2 | pin 2 | pin 2 | pin 2 |
| A          | pin 5     | pin 3 | pin 3 | pin 3 | pin 3 | pin 3 |
| A'         | pin 6     |       | pin 4 |       | pin 4 | pin 4 |
| B          | pin 8     | pin 4 | pin 5 | pin 4 | pin 5 | pin 5 |
| B'         | pin 1     |       | pin 6 |       | pin 6 | pin 6 |
| Z          | pin 3     | pin 5 | pin 7 | pin 5 | pin 7 | pin 7 |
| Z'         | pin 4     |       | pin 8 |       | pin 8 | pin 8 |
| Connector  |           |       |       |       |       |       |
| Pin Design |           |       |       |       |       |       |

\*\* for other connector options visit [www.fenac.com.tr](http://www.fenac.com.tr)

### FNC 80H Series

#### Pulse Diagram



#### Encoder Part Number

