

# Incremental encoders

Programmable Resolution 1...65.536 pulses

## FNCPW 58B Series Programmable



### Features

- Industry 58 mm standart size,
- Clamping flange version
- Robust mechanical and electrical construction
- Protection up to IP67
- Up to 65.536 PPR max.
- ≤2 MHz frequency
- Programming vi FNC PT - PC OW Programming tool

### PPR Options :

1 to 65.536 ppr for magnetic version  
1 to 65.536 ppr for optical version  
up to 2.000.000 on request

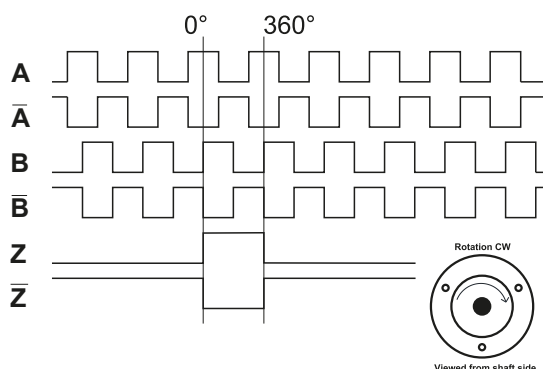
### Technical data - electrical ratings

|                       |                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------|
| Voltage supply        | 5 VDC to 30 VDC                                                                                                     |
| Protection            | Output short circuit protection.<br>Reverse polarity protection<br>Over voltage protection<br>( except 5V version ) |
| Consumption w/o load  | ≤60 mA (5 VDC)                                                                                                      |
| Reference signal      | Programmable length, 90°<br>180°, 270°, 360°                                                                        |
| Output frequency      | ≤ 2 MHz                                                                                                             |
| Output signals        | 90° shifted A and B,<br>Z + all channels can<br>be set indepently inverted                                          |
| Output circuit        | Linedriver/RS422<br>Push-pull short-circuit proof                                                                   |
| Interference immunity | DIN EN 61000-6-2                                                                                                    |
| Emitted interference  | DIN EN 61000-6-4                                                                                                    |
| Approval              | CE                                                                                                                  |

### Technical data - mechanical design

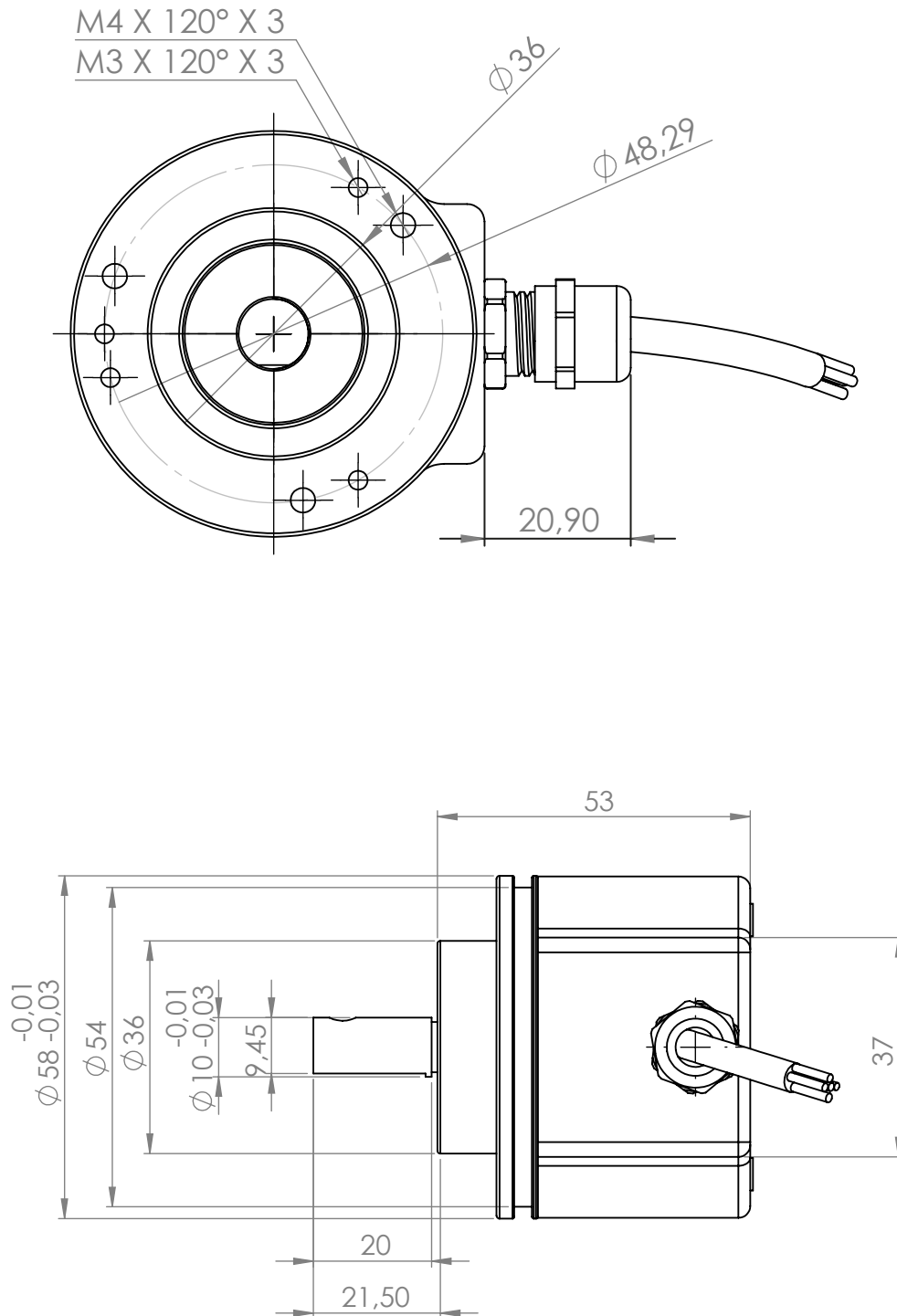
|                         |                                                                      |
|-------------------------|----------------------------------------------------------------------|
| Dimensions (flange)     | ø58 mm                                                               |
| Shaft loading           | ≤140 N axial<br>≤240 N radial                                        |
| Protection DIN EN 60529 | IP54, IP65                                                           |
| Operating speed         | ≤12000 rpm                                                           |
| Starting torque         | ≤0.025 Nm (IP65)                                                     |
| Materials               | Housing: Aluminum<br>Flange: Aluminum<br>Shaft : Stainless steel     |
| Shaft diameter          | 6, 8, 10, 12 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                                                                |

### Pulse Diagram



## FNCPW 58B Series Programmable

### Mechanical Dimensions



# Incremental encoders

Optical and Magnetic Programming Options

## FNCPW 58B Series Programmable

### Cable Wiring

| Function | Color        | Renk        | Farbe        | Цвет          | 颜色      | M2312 Connector |
|----------|--------------|-------------|--------------|---------------|---------|-----------------|
| +VB      | Brown        | Kahve       | Braun        | Коричневый    | 棕色的     | pin 2           |
| GND      | White        | Beyaz       | Weiß         | Белый         | 白色的     | pin 10          |
| A        | Green        | Yeşil       | Grün         | Зеленый       | 绿       | pin 5           |
| A'       | Green-Black  | Yeşil-Siyah | Grün-Schwarz | Зелено-черный | 绿-蓝色的   | pin 6           |
| B        | Yellow       | Sarı        | Gelb         | Желтый        | 黄色的     | pin 8           |
| B'       | Yellow-Black | Sarı-Siyah  | Gelb-Schwarz | Желто-черный  | 黄色的-蓝色的 | pin 1           |
| Z        | Gray         | Gri         | Grau         | Серый         | 灰色的     | pin 3           |
| Z'       | Gray-Black   | Gri-Siyah   | Grau-Schwarz | Серо-черный   | 灰色的-蓝色的 | pin 4           |
| PR       | Orange       | Turuncu     | Orange       | Оранжевый     | 橙       | pin 11          |

Programming Wire

### FNC PT-PCOW Programming Device

No need for additional PC



Programming Device Cable -  
Connected to Adaptor

### FNCPW 58BO 10630VX-R2

### Encoder Part Number

**FNCPW 58 B O 10 6 30V X - R2**

Housing:  
58 : 58mm

Flange Type  
B : Clamping flange

O : Optical programmable  
M : Magnetic programmable

Shaft diameter : 6, 8, 10, 12  
Other dimensions on request

Output Channels  
3 : ABZ      4 : AB+A' B'      6 : ABZ+A' B' Z'

#### Electrical Connections:

Cable  
R2 : radial 2m, shield not connected (standart)  
A2 : axial 2m, shield not connected (standart)

#### PPR Options :

1 to 65.536 ppr for magnetic version  
1 to 65.536 ppr for optical version  
up to 2.000.000 on request

#### Supply Voltage and output circuit :

5V : 5V in / out  
30V : 5-30V in/out