

# Incremental encoders

Resolution 1...65.536 ppr

کانون ابزار

تلفن:

۰۲۱ ۶۶ ۳۹ ۳۹ ۰۰

۰۹۱۲ ۱۴۷ ۳۰۲۳

ali5.ir



## FNC 58S Series



### Features

- Industry 50 mm standard size, servo flange
- Robust mechanical and electrical construction
- Protection up to IP67
- Up to 65.536 ppr max.
- <300 kHz frequency
- Optical and magnetic sensing

### Technical data-electrical ratings

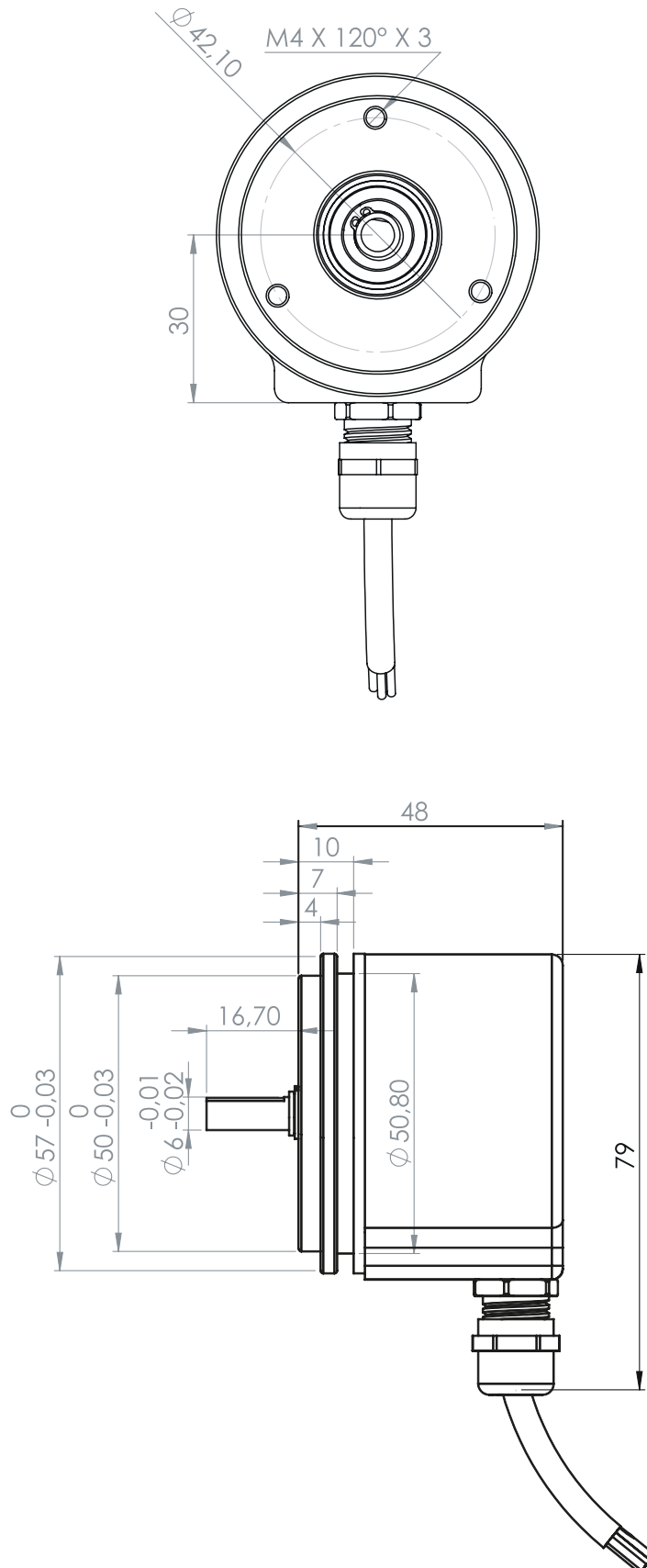
|                          |                                                                                        |
|--------------------------|----------------------------------------------------------------------------------------|
| Voltage supply           | 4.75VDC to 30VDC<br>4.75VDC to 5.5VDC                                                  |
| Protection               | Output short circuit protection.<br>Reverse polarity protection<br>(except 5V version) |
| Consumption w/o load     | ≤60 mA (24 VDC)                                                                        |
| Resolution (steps/turn)  | 1...65.536 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)     | Ø58 mm                                                               |
| Shaft loading           | ≤80 N axial<br>≤100 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          | 4, 6, 8, 10 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.          | 200 g                                                                |

### FNC 58S Series

#### Mechanical Dimensions



# Incremental encoders

Cable / Connector Wiring, Part Number

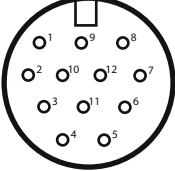
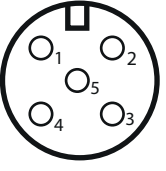
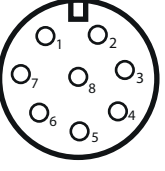
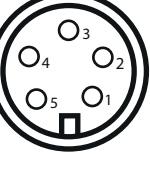
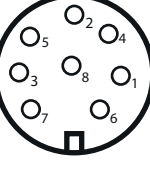
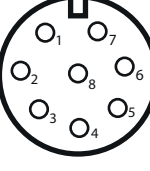


## FNC 58S Series

### 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 |  |  |  |  |  |  |

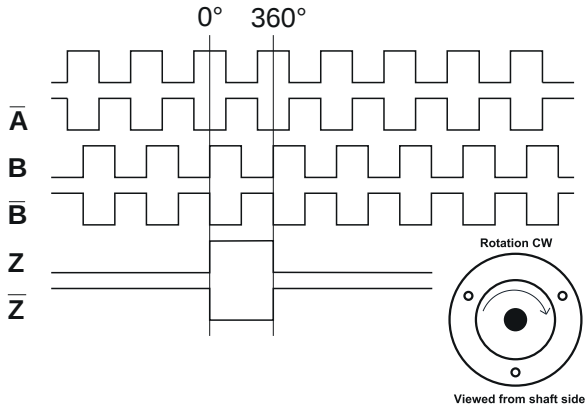
\*\* for other connector options visit [www.fenac.com.tr](http://www.fenac.com.tr)

# Incremental encoders

## Pulse Diagram, Part Number

### FNC 58S Series

#### Pulse Diagram



#### Encoder Part Number

FNC 58 S 10 4 30V 1024 - R2

**Housing**  
58 : 58 mm

**Flange**  
S : Servo flange  
B : Clamping flange

**Shaft diameter : 4, 6, 8, 10**  
Other dimensions on request

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

#### Electrical Connections

##### Cable

R2 : radial 2m, shield not connected (standard)

##### Connector

R1205 R1508  
R1208 R1608  
R1505 R2312

##### PPR Options

1 to 65.536 PPR All pulses

#### Supply Voltage and Output Circuit

5V : 5V in / out  
245V : 5-30V in 5V out  
30V : 5-30V in / out

کانون ابزار

تلفن:

۰۲۱ ۶۶ ۳۹ ۳۹ ۰۰

۰۹۱۲ ۱۴۷ ۳۰۲۳

ali5.ir