

FNC 58SC Series



Features

- Industry 58 mm standard size, clamping flange
- Robust mechanical and electrical construction
- Protection up to IP67
- Up to 25.000 PPR max.
- <300 kHz frequency

PPR Options :

1 to 128 - 25 - 50 - 100 - 200 - 250 - 300 - 360 - 400 - 500 - 512 - 600 - 720 - 800 - 900 - 1000 - 1024 - 1250 - 1440 - 2000 - 2048 - 2500 - 3000 - 3600 - 4000 - 4096 - 5000 - 6000 - 8192 - 10000 - 12500 - 16384 - 20000 - 25000

Technical data - electrical ratings

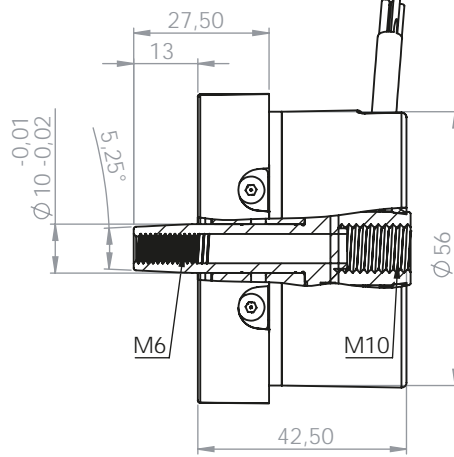
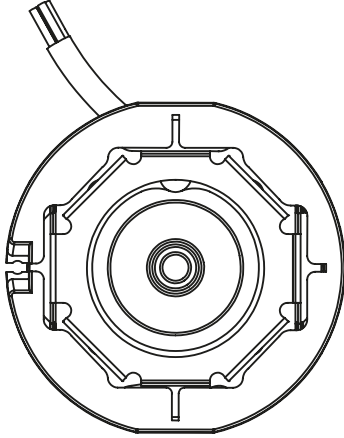
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|--------------------------|--|
| Voltage supply | 4.75VDC to 30VDC 4.75VDC to 5.5VDC |
| Protection: | Output short circuit protection. Reverse polarity protection (except 5V version) |
| Consumption w/o load | ≤60 mA (24 VDC) |
| Resolution (steps/turn) | 1...25.000 up to 65536 |
| Reference signal | Zero pulse, width 90° 180°, 360° optional |
| Optoelectronic life time | 100.000 (min) |
| Output frequency | >200 kHz |
| Output signals | 90° shifted A and B, Z + inverted |
| Output circuit | Linedriver/RS422 Push-pull short-circuit proof NPN Open Collector |
| Interference immunity | DIN EN 61000-6-2 |
| Emitted interference | DIN EN 61000-6-4 |
| Approval | CE |

Technical data - mechanical design

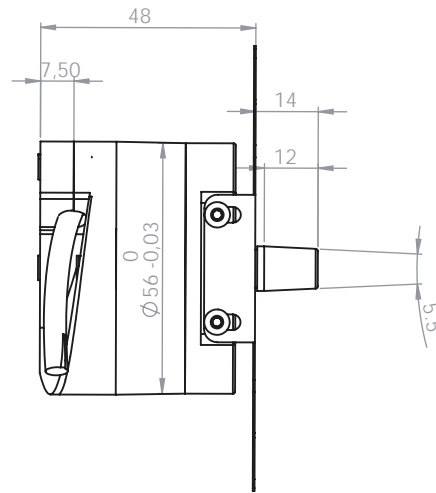
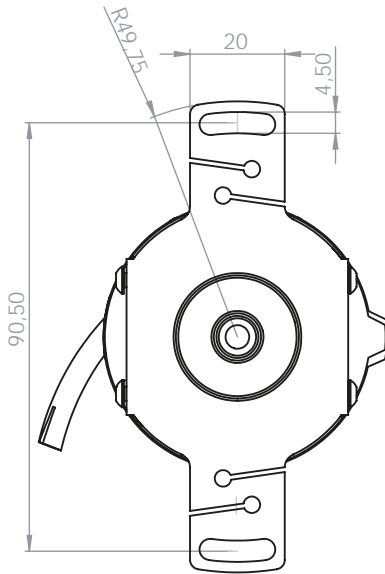
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|-------------------------|--|
| Dimensions (flange) | ø58 mm |
| Shaft loading | ≤120 N axial ≤160 N radial |
| Protection DIN EN 60529 | IP54, IP65 |
| Operating speed | ≤10000 rpm |
| Starting torque | ≤0.025 Nm (IP 67) |
| Materials | Housing: Aluminium Flange: Aluminium Shaft : Stainless steel |
| Shaft diameter: | Conic shaft |
| Bearings lifetime: | 2x10 ⁹ rev. at 100% of full rated shaft load (minimum) |
| Operating temperature | -20...+85 °C |
| Storage temperature | -30 °C up to +90 °C |
| Weight approx. | 250 g |

Mechanical Dimensions

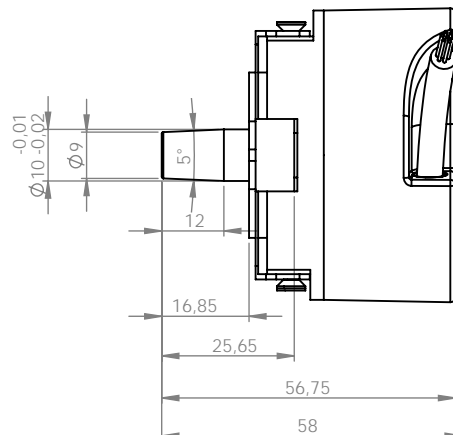
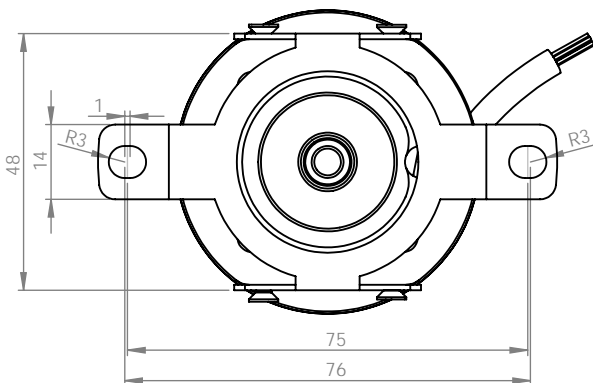
CR spring version



SF spring version



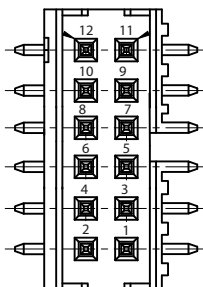
S8 spring version



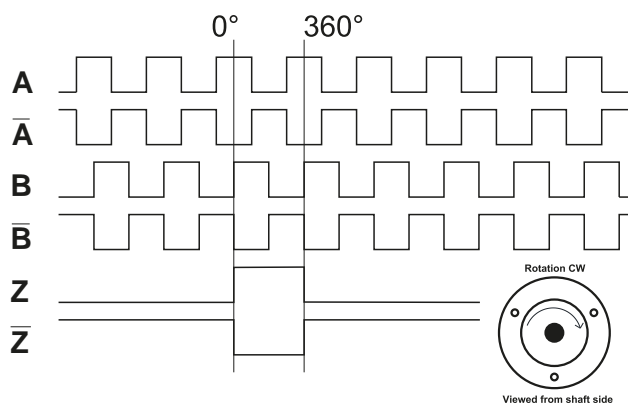
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Connector Wiring

| Function | Connector |
|----------|-----------|
| GND | pin 11/12 |
| +VB | pin 9/10 |
| NC | pin 8 |
| NC | pin 7 |
| A+ | pin 1 |
| A- | pin 2 |
| B+ | pin 3 |
| B- | pin 4 |
| Z+ | pin 5 |
| Z- | pin 6 |



Pulse Diagram



Encoder Part Number

FNC 58 SC C 6 30V 1024 - K12 CR

Housing:
58 : 58mm

Flange Type:
SC : 58 mm with conic shaft

Shaft diameter :
C : Conic shaft

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

Supply Voltage and output circuit :
5V : 5V in / out
245V : 5-30V in 5V out
30V : 5-30V in / out

Spring Type:
CR
S8
SF

Electrical Connections:
Cable
R2 : radial 2m, shield not connected (standart)
A2 : axial 2m, shield not connected (standart)
K12 : 12 pin socket connection

Connector:
R1204 R1607
R1205 R1614
R1208 R2312R
R1212 R2312L

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