

FNC TI 58 Series



Features

- Industry 58 mm standart size, through hollow shaft
- Robust Mechanical and Electrical Construction
- Protection to IP65
- <300 kHz frequency

PPR Options :

up to 65.536

Technical data - electrical ratings

Voltage supply	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)	up to 65536
Reference signal	Zero pulse, width 90° 180°, 360° optional
Optoelectronic life time	100.000 (min)
Output frequency	<300 kHz
Output signals	90° shifted A and B, Z + inverted
Output circuit	Linedriver/RS422 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)	ø50 mm
Shaft loading	80 N axial 100 N radial
Protection DIN EN 60529	IP54, IP65
Operating speed	10000 rpm
Starting torque	0.025 Nm (IP 67)
Materials	Housing: Aluminum Flange: Aluminum Shaft : Stainless steel
Shaft diameter:	20 mm (other diameters on request)
Bearings lifetime:	2×10^9 rev. at 100% of full rated shaft load (minimum)
Operating temperature	-40...+85°C
Storage temperature	-40 °C up to +90 °C
Weight approx.	150 g

Thin section incremental encoders

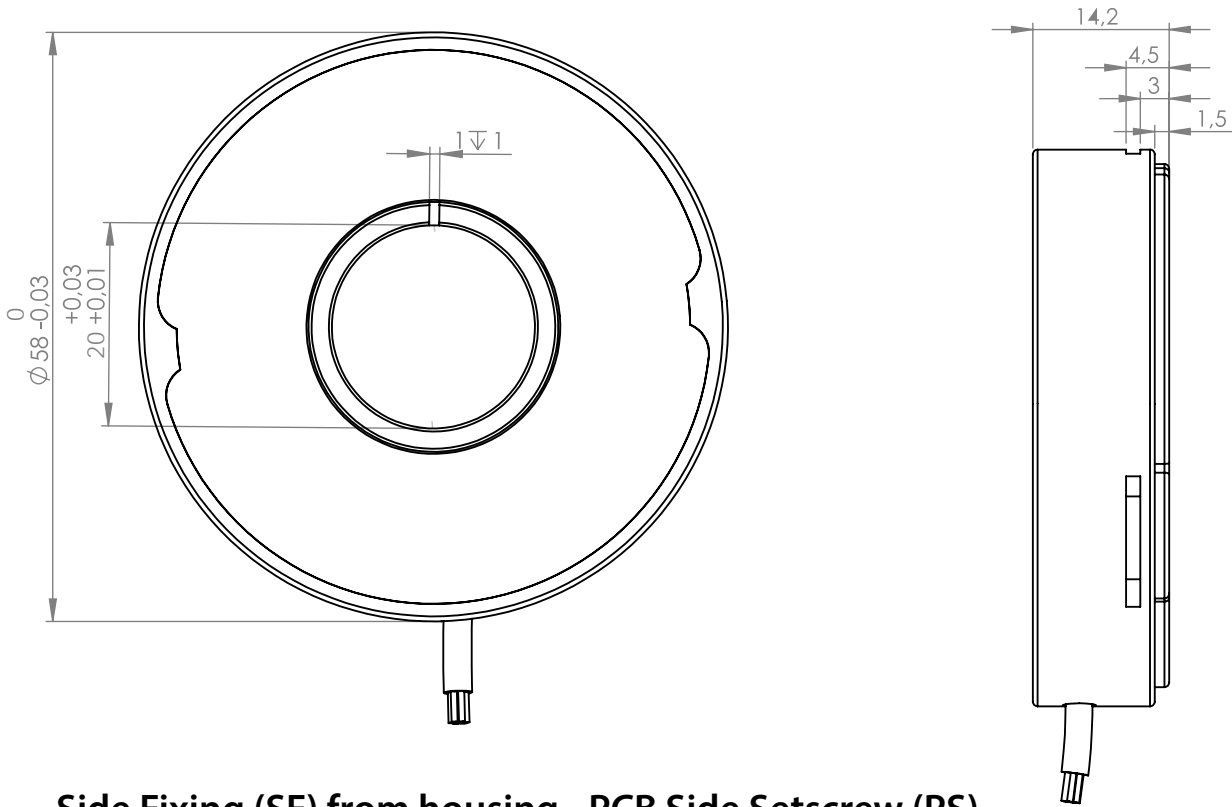


Mechanical Dimensions
Cable/Connector Wiring, Part Number

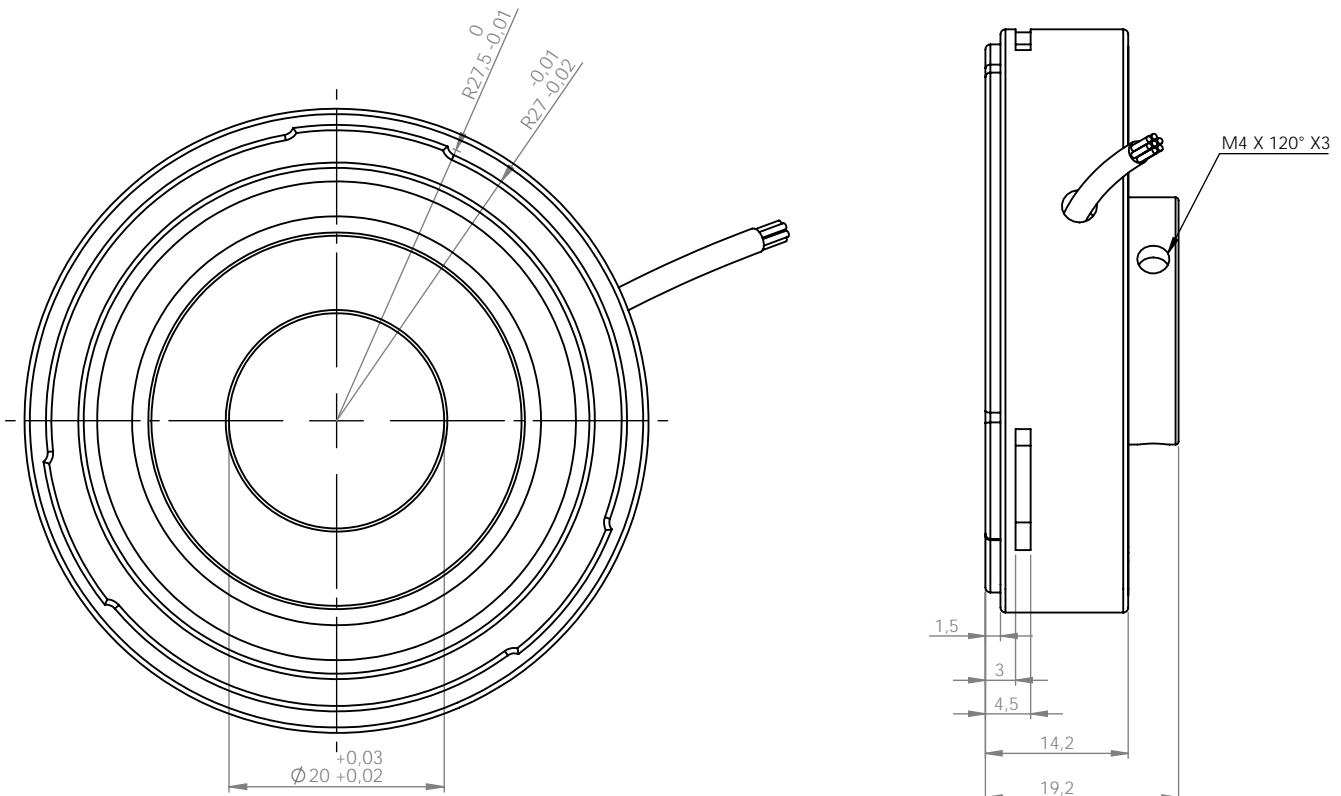
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Mechanical Dimensions

Side Fixing from housing (SF) - Rove (R) Fixing from shaft version



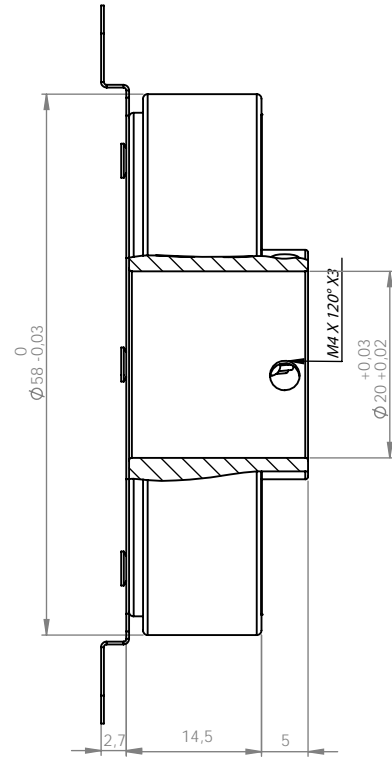
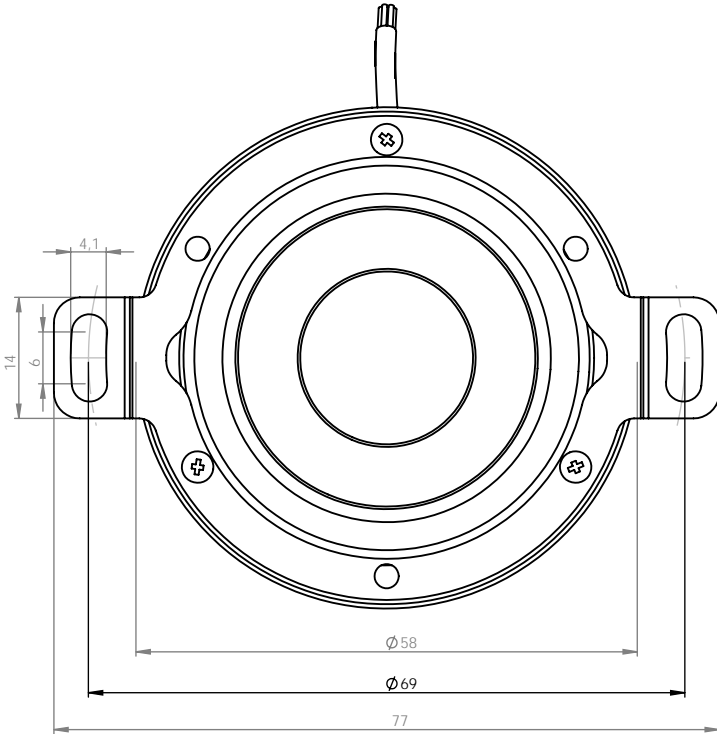
Side Fixing (SF) from housing - PCB Side Setscrew (PS)



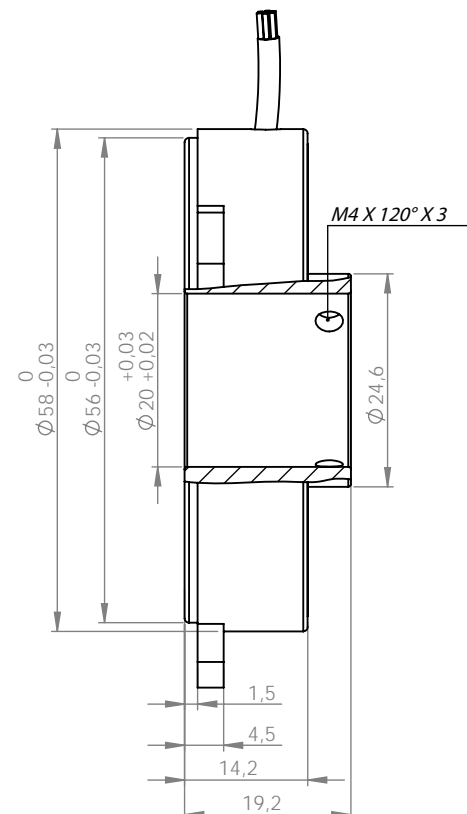
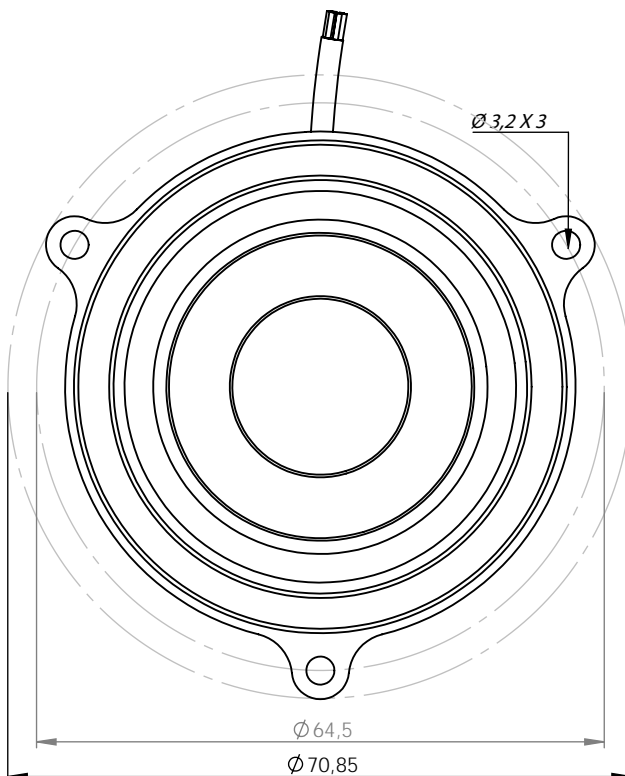
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Mechanical Dimensions

Spring (SP2) fixing from housing -PCB Side Setscrew (PS)



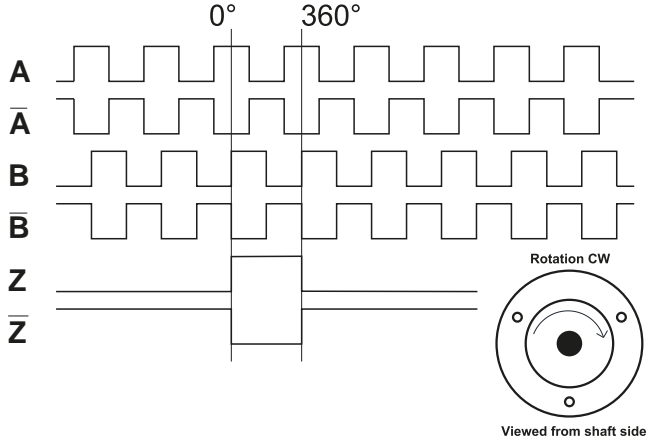
Ear(K) fixing from housing - PCB Side Setscrew (PS)



Thin section incremental encoders

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Pulse Diagram



Cable Wiring

Function	Color	Renk	Explanation
+VB	Brown	Kahve	Supply Voltage
GND	White	Beyaz	Ground
A	Green	Yeşil	A Channel
A'	Red	Kırmızı	A Inverted Channel
B	Yellow	Sarı	B Channel
B'	Pink	Pembe	B Inverted Channel
Z	Gray	Gri	Z Channel
Z'	Blue	Mavi	Z Inverted Channel
Shield	Black	Siyah	Shield

Encoder Part Number

FNC TI SF R 58 20 6 5V 10.000 - R2

TI : Thin incremental

Montage Options - Housing Side

SF : Side Fixing
SP2 : Spring Option 2
K : Ear

Montage Options - Shaft Side

R : Rove
PS : PCB Side Setscrew

Housing

58 : 58 mm

Shaft diameter

12,7 (0,5"), 14, 15, 16, 20 mm (others on request)

Electrical Connections:

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

PPR Options :

up tp 65.536

Supply Voltage and output circuit :

5V : 5V in / out

Output Channels

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