

Incremental encoders

Resolution 1...4096 pulses



FNC 40H Series



Features

- Industry 40 mm size, 20mm diameter clamping flange
- Universal 40 mm encoders
- Robust Mechanical and Electrical Construction
- Protection to IP65
- Up to 4096 PPR max.
- <300 kHz frequency

PPR Options :

600-1200-2400-625-1250-2500
750-1500-3000-900-1800-3600-
1024-2048-4096

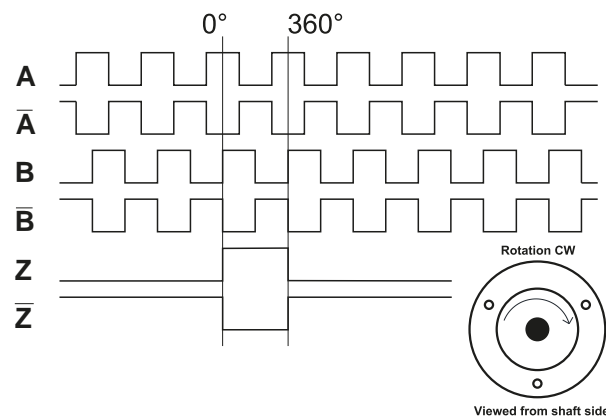
Technical data - electrical ratings

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)	up to 4096 ppr
Reference signal	Zero pulse, width 90° 180°, 360° optional
Optoelectronic life time	minimum 100.000 hours
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

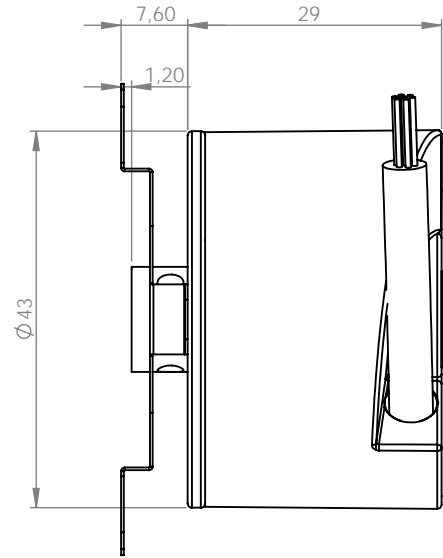
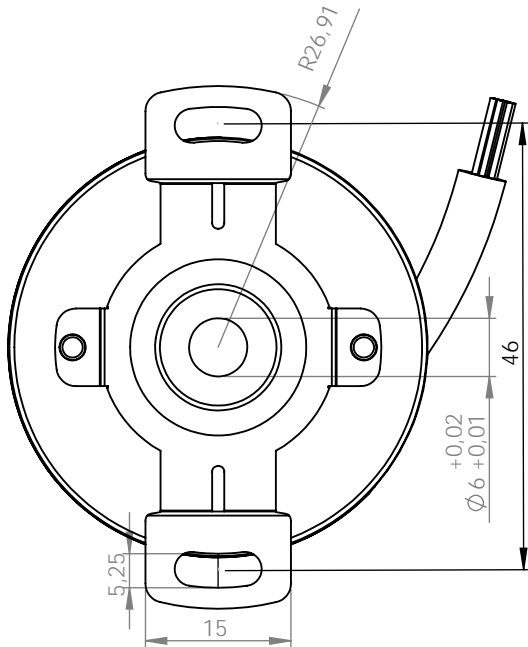
Technical data - mechanical design

Dimensions (flange)	ø40 mm
Shaft loading	≤60 N axial ≤80 N radial
Protection DIN EN 60529	IP54, IP65
Operating speed	≤10000 rpm
Starting torque	≤0.020 Nm (IP 67)
Materials	Housing: Aluminium Flange: Aluminium Shaft : Stainless steel
Shaft diameter:	4,6,8, 10 mm (other diameters on request)
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.	100 g

Pulse Diagram

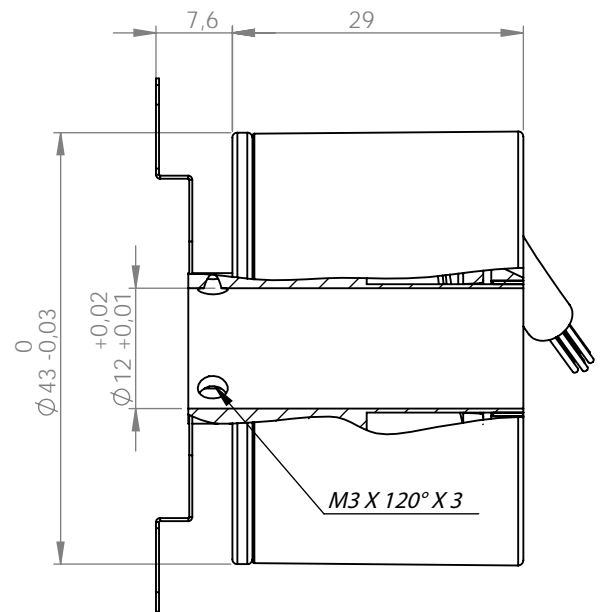
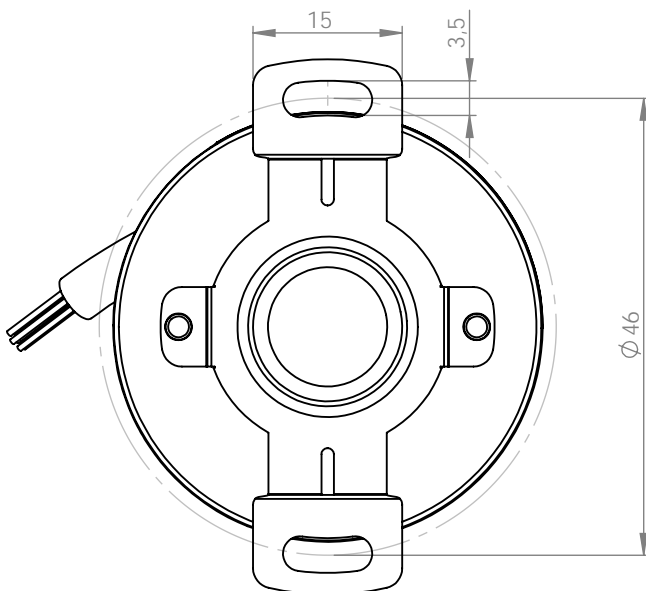


Mechanical Dimensions



00 / 30.12.2020

12 mm hollow shaft version



00 / 19.07.2022

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Cable Wiring

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

Encoder Part Number

FNC 40 H 6 6 30V 1024 - R2

Housing:
40 : 40mm

Flange Type:
H: Hollow shaft

Shaft diameter: 4,6,8,10 mm
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 (standart)
A2 : axial 2m, shield not connected (standart)

Connector:

CRM1204 CRM1212
CRM1205 CRM1607
CRM1208 CRM1614

PPR Options :

600-1200-2400-625-1250-2500
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1024-2048-4096

Supply Voltage and output circuit :

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