

Incremental encoders

Programmable Resolution 1...65.536 pulses

FNCPW 50S Series Programmable



Features

- Industry 50 mm standard size,
- Clamping flange version
- Robust mechanical and electrical construction
- Protection up to IP67
- Up to 65.536 PPR max.
- 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

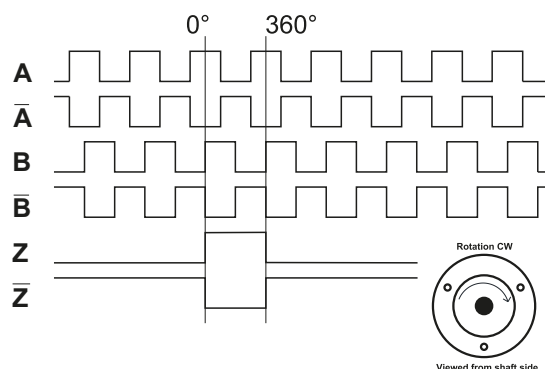
Technical data-electrical ratings

Voltage supply	5 VDC to 30VDC
Protection	Output short circuit protection. Reverse polarity protection (except 5V version)
Consumption w/o load	≤60 mA (24 VDC)
Resolution (steps/turn)	1...2.000.000 ppr
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 ratings

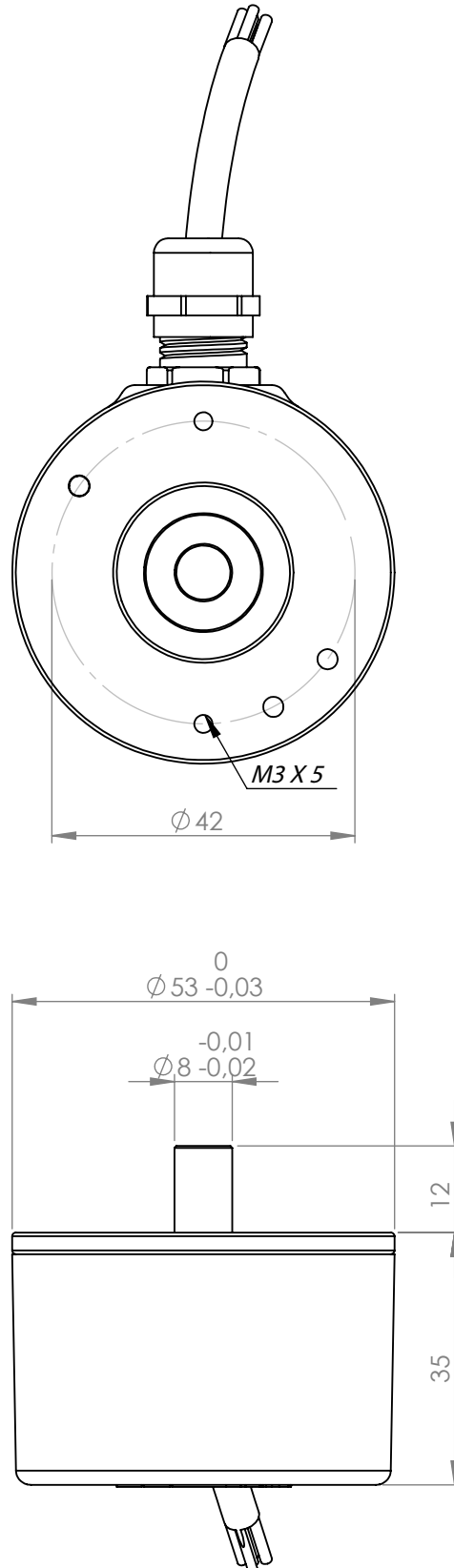
Dimensions (flange)	Ø50 mm
Shaft loading	≤60 N axial ≤80 N radial
Protection DIN EN 60529	IP54, IP65
Operating speed	≤10.000 rpm
Starting torque	≤0.025 Nm (IP67)
Materials	Housing: aluminum Flange: aluminum Shaft: stainless steel
Shaft diameter	5, 6, 7, 8, 10, 12 mm (other diameters on request)
Bearings 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.	150 g

Pulse Diagram



FNCPW 50S Series Programmable

Mechanical Dimensions



Incremental encoders

Optical and Magnetic Programming Options

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Cable Wiring

Function	Color	Renk	Farbe	Цвет	颜色	M2312 Connector
+VB	Brown	Kahve	Braun	Коричневый	棕色的	pin 2
GND	White	Beyaz	Wei	Белый	白色的	pin 10
A	Green	Yeil	Grn	Зеленый	绿	pin 5
A'	Green-Black	Yeil-Siyah	Grn-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 50SO 6630VX-R2

Encoder Part Number

FNCPW 50 S O 6 6 30V X - R2

Housing:
50 : 50mm

Flange Type
S : Servo 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