

Incremental encoders

Resolution 1...2.000.000 pulses



FNC 50HW Series



Features

- 50 mm housing, special shaft design
- Robust mechanical and electrical construction
- Protection up to IP54
- Up to 65.536 ppr max.
- <300 kHz frequency
- Optical and magnetic sensing

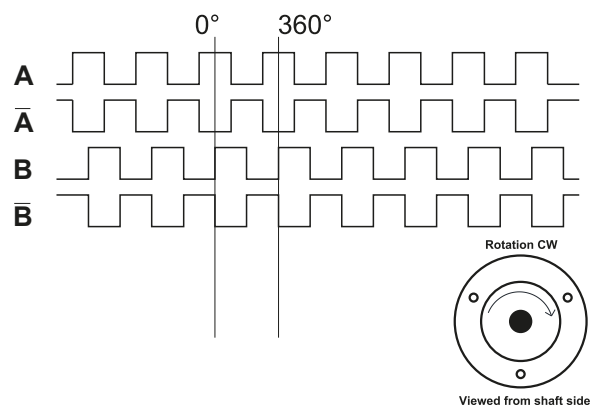
Technical data - mechanical design

Dimensions (flange)	ø50 mm
Shaft loading	≤80 N axial ≤100 N radial
Protection DIN EN 60529	IP54
Operating speed	≤10000 rpm
Starting torque	≤0.025 Nm (IP 54)
Materials	Housing: Aluminum Flange: Aluminum Shaft : Stainless steel
Shaft surface:	35mm special shaft design (other surface 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

Technical data - electrical ratings

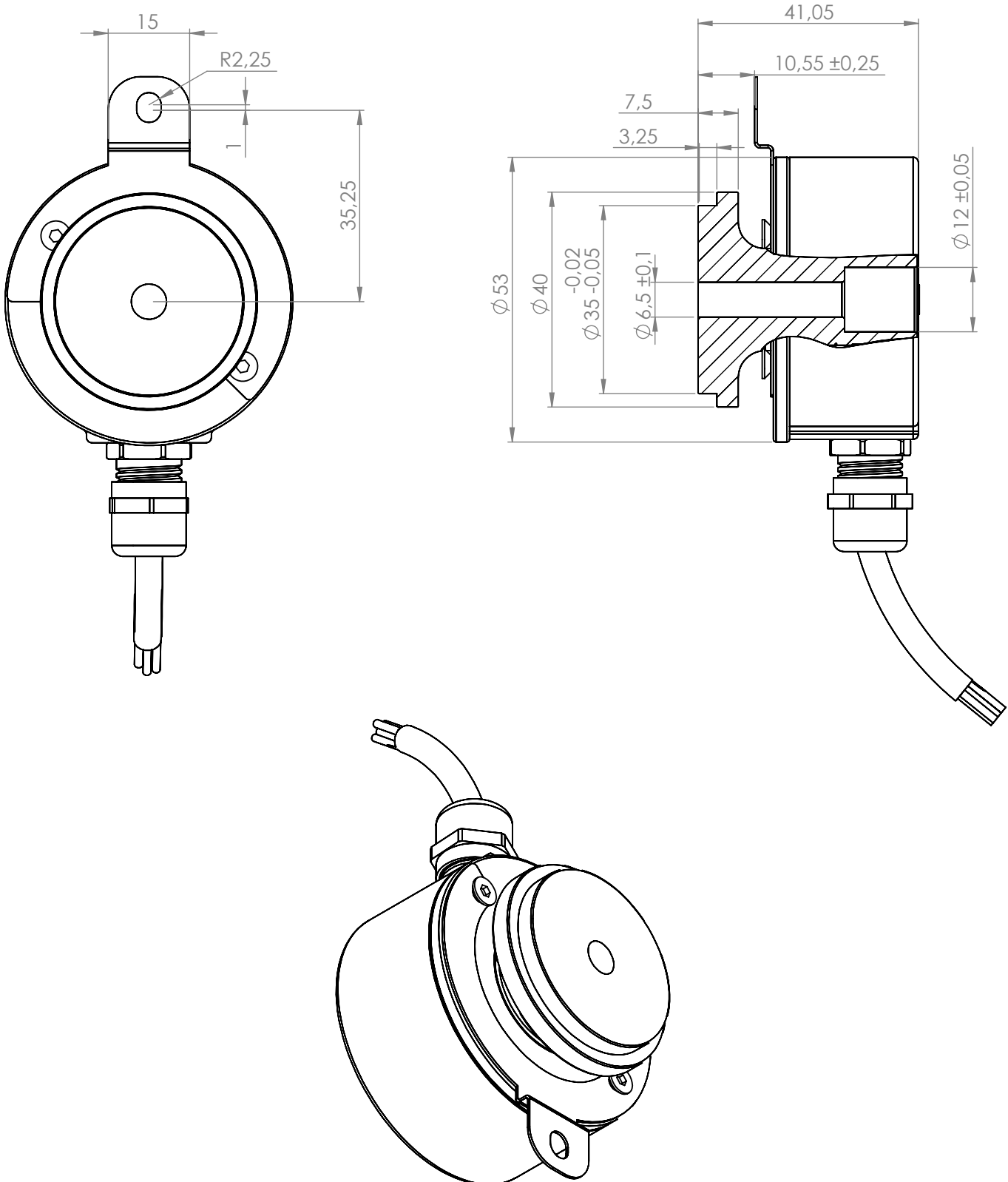
Voltage supply	4.75VDC to 5.5VDC
Protection:	Output short circuit protection. Reverse polarity protection
Consumption w/o load	≤60 mA
Resolution (steps/turn)	1...2.000.000 ppr
Reference signal	Zero pulse, width 90° 180°, 360° optional
Optoelectronic life time	100.000 (min)
Output frequency	<300 kHz
Output signals	90° shifted A and B & inverted
Output circuit	Push-pull short-circuit proof NPN Open Collector
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Approval	CE

Pulse Diagram



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Mechanical Dimensions



Incremental encoders

Cable, Part Number

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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
Shield	● Black	Siyah	Schwarz	Чернить	黑色的

Encoder Part Number

