

Incremental encoders

Resolution 1...2.000.000 pulses



FNC 50HD Series

ORDER PART NUMBER



FNC 50HD 15430V1024-R7



FNC 50HD 15430V1024-R2312



FNC 50HD 15430V1024-R1M231R



FNC 50HD 15430V1024-R1M23RDF/KBL50



FCSF M2312L 100

Technical data - electrical ratings

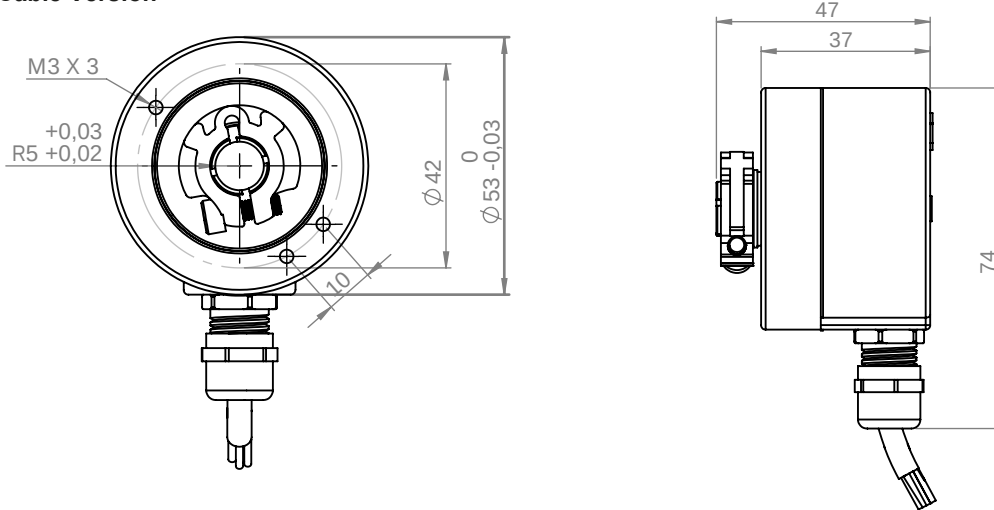
Voltage supply	4.75VDC to 30VDC 4.75VDC to 5.5VDC
Protection:	Output short circuit protection. Reverse polarity protection (except 5V version)
Consumption w/o load	≤60 mA (24 VDC)
Resolution (steps/turn)	1 to 2.000.000 ppr
Reference signal	Zero pulse, width 90° 180°, 360° optional
Optoelectronic life time	100.000 (min)
Output frequency	<300 kHz
Output signals	90° shifted A and B, 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

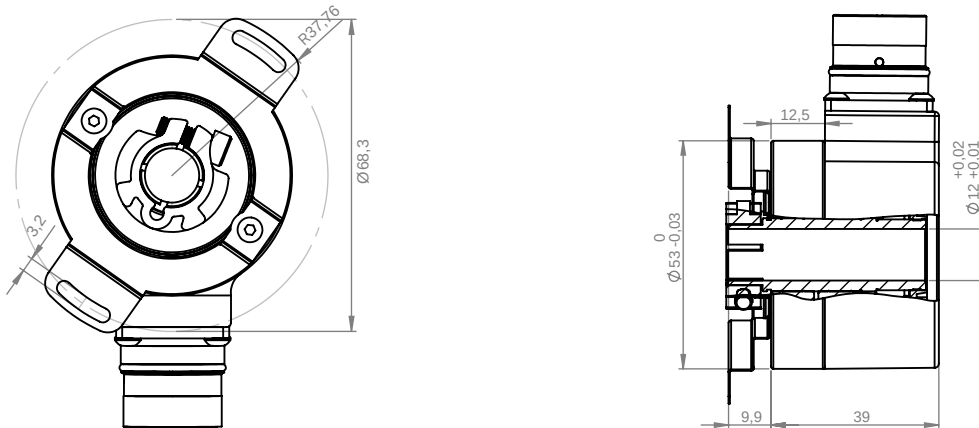
Dimensions (flange)	ø50 mm
Shaft loading	≤80 N axial ≤100 N radial
Protection DIN EN 60529	IP54, IP65
Operating speed	≤10000 rpm
Starting torque	≤0.025 Nm (IP 67)
Materials	Housing: Aluminum Flange: Aluminum Shaft : Stainless steel
Shaft diameter:	6, 8, 10, 12, 14, 15 mm (other diameters on request)
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

Mechanical Dimensions

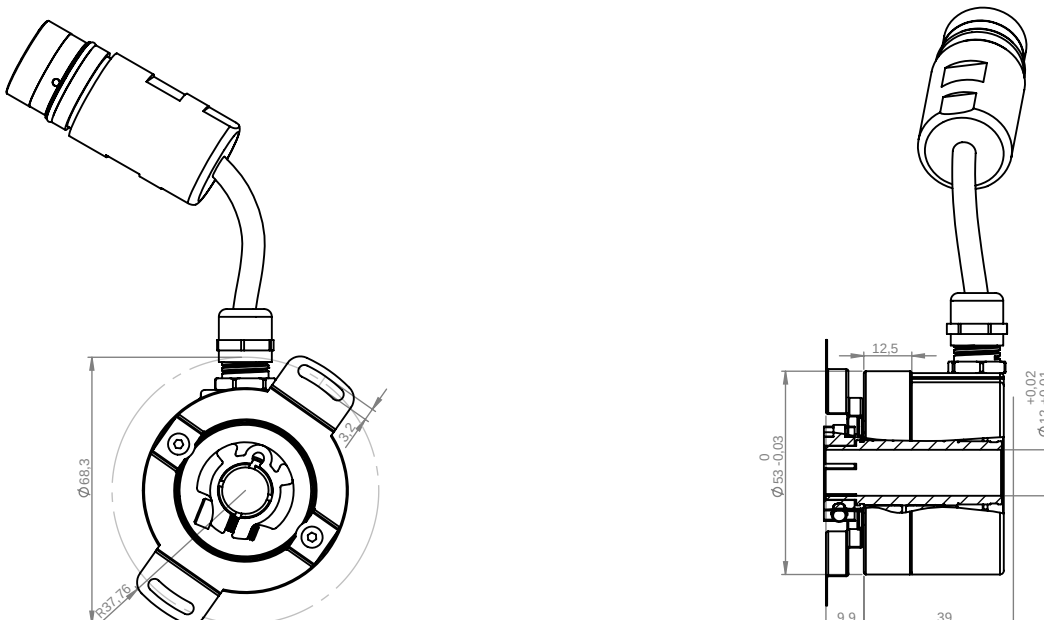
Cable Version



M2312 Connector Version



R1M2312 version

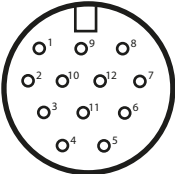
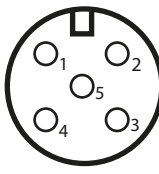
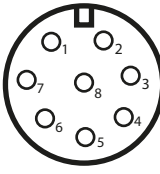
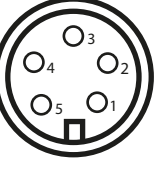
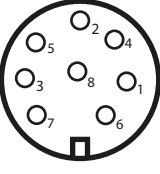
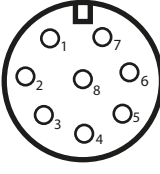


Incremental encoders

Cable/Connector Wiring

FNC 50HD Series

Cable / Connector Wiring

Function	R2312R	R1205	R1208	R1505	R1508	R1608
+VB	pin 2-12	pin 1	pin 1	pin 1	pin 1	pin 1
GND	pin 10-11	pin 2	pin 2	pin 2	pin 2	pin 2
A	pin 5	pin 3	pin 3	pin 3	pin 3	pin 3
A'	pin 6		pin 4		pin 4	pin 4
B	pin 8	pin 4	pin 5	pin 4	pin 5	pin 5
B'	pin 1		pin 6		pin 6	pin 6
Z	pin 3	pin 5	pin 7	pin 5	pin 7	pin 7
Z'	pin 4		pin 8		pin 8	pin 8
Connector						
Pin Design						

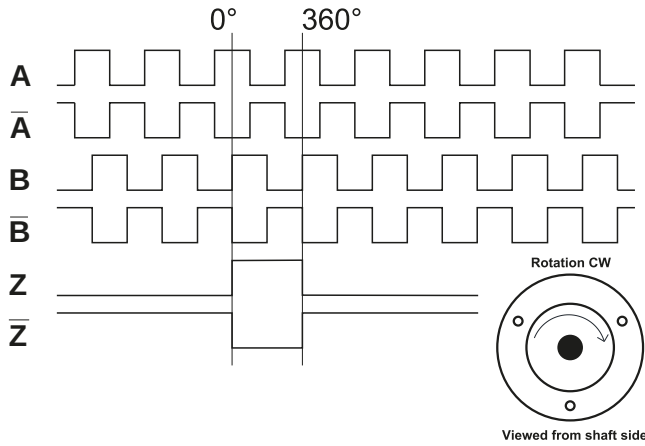
** for other connector options visit www.fenac.com.tr

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

FNC 50HD Series

Pulse Diagram



Encoder Part Number

FNC **50** **HD** **15** **4** **30V** **1024** **-** **R2**

Housing:
50 : 50mm

Flange Type:
HD : Thicker version of 50H

Shaft diameter : 6, 8, 10, 12, 14, 15 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)

Connector:

R1205 R1607
R1208 R2312
R1605

PPR Options :

1 to 2.000.000 PPR All pulses

Supply Voltage and output circuit :

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