

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



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
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Shaft diameter:	6, 8, 10, 12, 14, 15 mm (other diameters on request)
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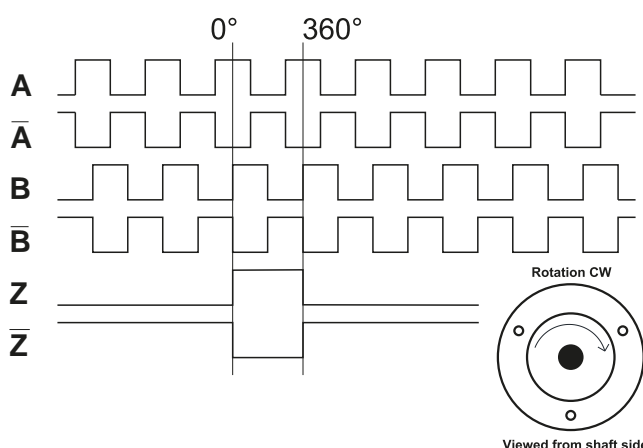
Bearings lifetime:	2x10 ⁹ rev. at 100% of full rated shaft load (minimum)
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Operating temperature	-20...+85 °C
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Storage temperature	-30 °C up to +90 °C
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Weight approx.	150 g
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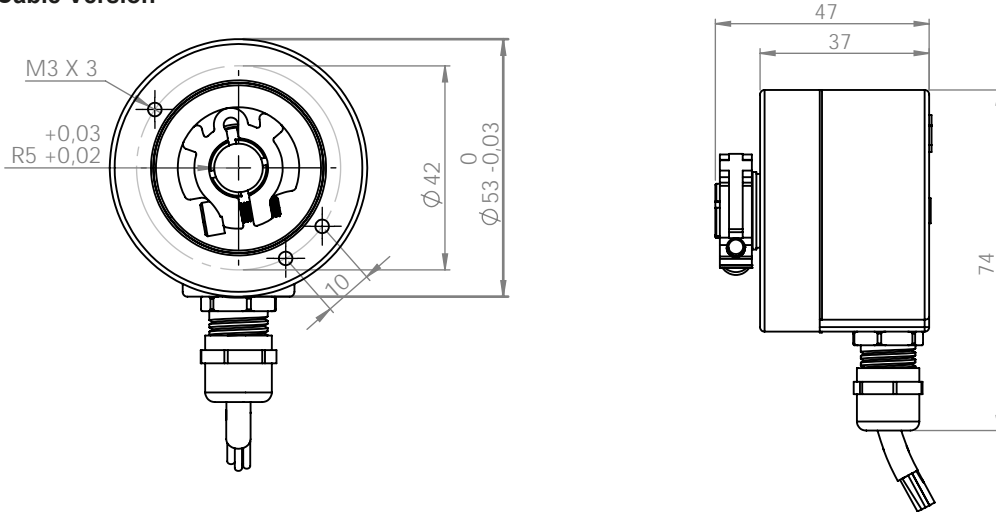
Pulse Diagram



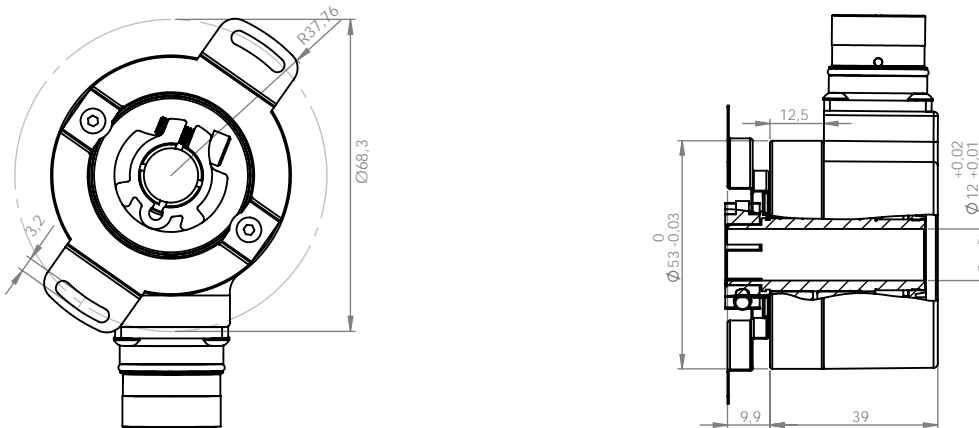
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Mechanical Dimensions

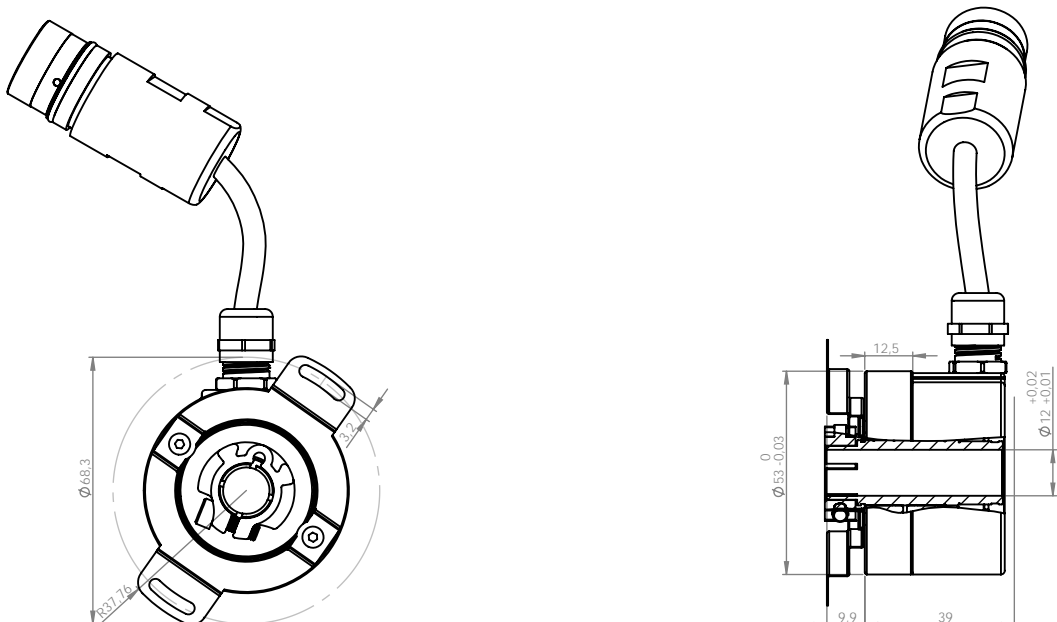
Cable Version



M2312 Connector Version



R1M2312 version








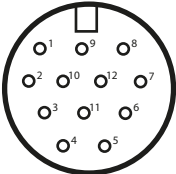
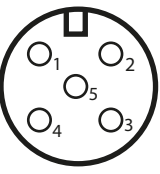
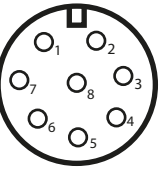
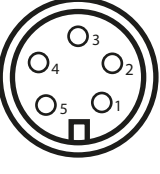
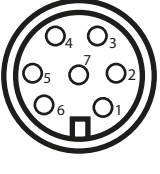
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Cable / Connector Wiring

Function	R2312R	R1205	R1208	R1605	R1607	Color	Renk
+VB	pin 2-12	pin 1	pin 1	pin 1	pin 1	Brown	Kahve
GND	pin 10-11	pin 2	pin 2	pin 2	pin 2	White	Beyaz
A	pin 5	pin 3	pin 3	pin 3	pin 3	Green	Yeşil
A'	pin 6		pin 4			Red	Kırmızı
B	pin 8	pin 4	pin 5	pin 4	pin 4	Yellow	Sarı
B'	pin 1		pin 6			Pink	Pembe
Z	pin 3	pin 5	pin 7	pin 5	pin 5	Gray	Gri
Z'	pin 4		pin 8			Blue	Mavi
Connector							
Pin Design							

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