

Incremental encoders

Resolution 100 ...10.000 pulses



FNC 150H Series



Features

- Industry 150 mm design, through hollow shaft
- Robust mechanical and electrical construction
- Protection up to IP65
- Up to 10.000 ppr max.
- <300 kHz frequency

Technical data - electrical ratings

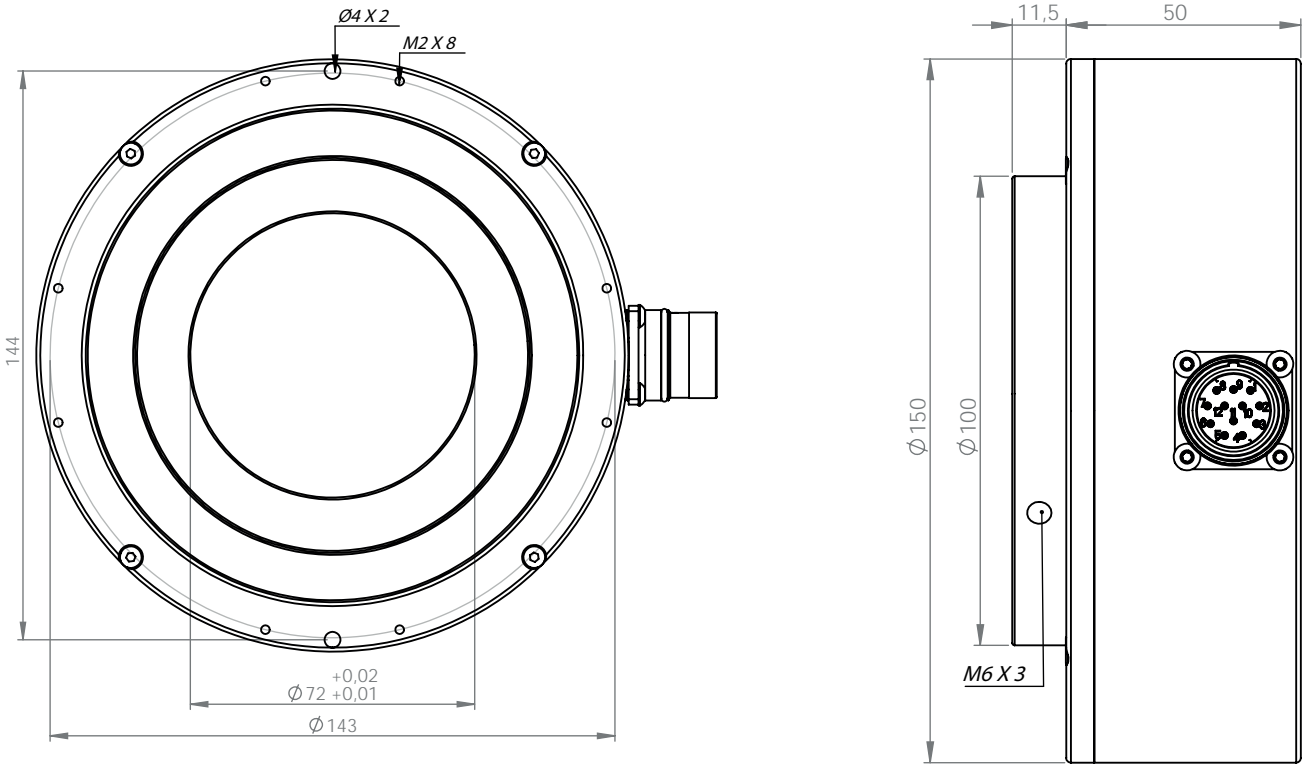
Voltage supply	4.75VDC to 30VDC 4.75VDC to 5.5VDC
Protection:	Output short circuit protection. Reverse polarity protection (except 5V version)
Consumption w/o load	≤60 mA (24 VDC)
Resolution (steps/turn)	1024...10.000
Reference signal	Zero pulse, width 90° 180°, 360° optional
Optoelectronic life time	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

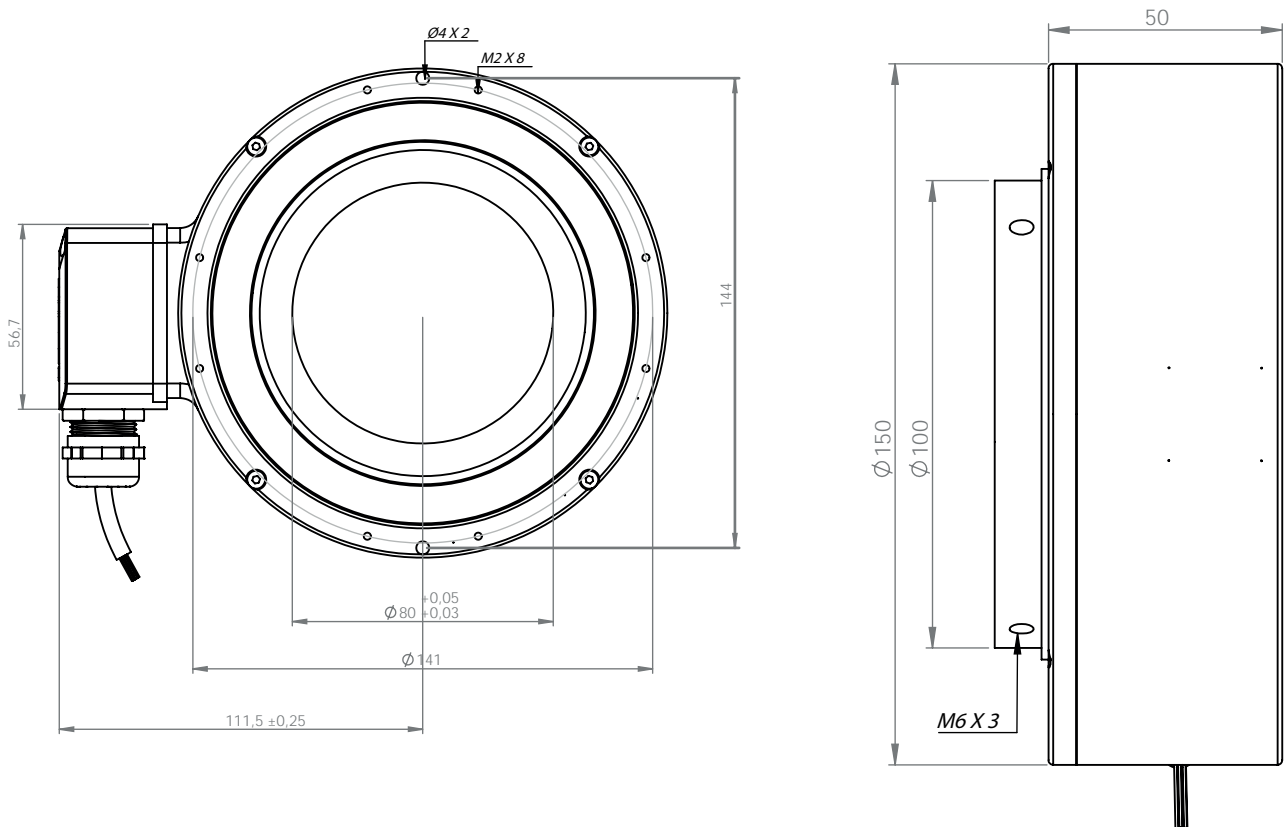
Dimensions (flange)	ø150 mm
Shaft loading	≤140 N axial ≤240 N radial
Protection DIN EN 60529	IP54, IP65
Operating speed	≤10.000 rpm
Starting torque	≤0.025 Nm (IP 67)
Materials	Housing: aluminium Flange: aluminium Shaft : stainless steel
Shaft diameter:	72 to 90 mm (other diameters on request)
Bearings lifetime:	2x10 ⁹ rev. at 100% of full rated shaft load (minimum)
Operating temperature	-40 °C to +85 °C
Storage temperature	-40 °C to +90 °C
Weight approx.	700 g

Mechanical Dimensions

Connector Option



Terminal Box Option



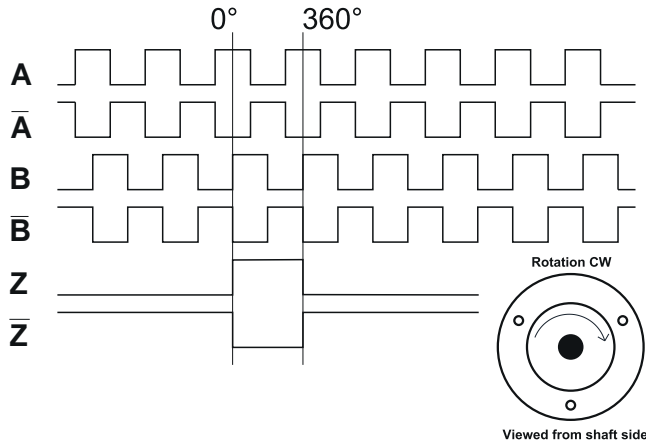
Incremental encoders

Cable/Connector Wiring, Part Number



FNC 150H Series

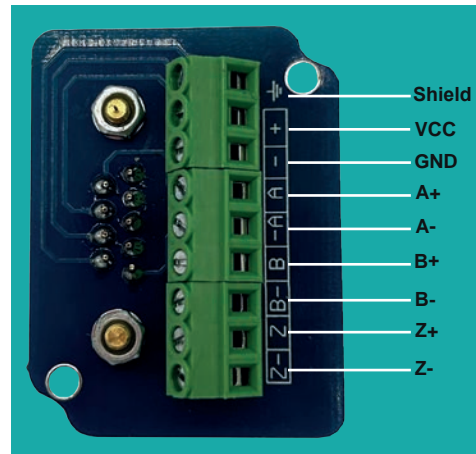
Pulse Diagram



Cable Wiring

Function	Color	Renk
+VB	Brown	Kahve
GND	White	Beyaz
A	Green	Yeşil
A'	Red	Kırmızı
B	Yellow	Sarı
B'	Pink	Pembe
Z	Gray	Gri
Z'	Blue	Mavi
Shield	Black	Siyah

Terminal Box Connection



Encoder Part Number

FNC 150 H 72 6 30V 1024 - R2

Housing:
150: 150 mm

Flange Type:
H : Through hollow shaft

Shaft diameter : 72 to 90 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)
T : terminal box

Connector:

R1204 R1607
R1205 R1614
R1208 R2312R
R1212 R2312L

PPR Options :

100 - 360 - 500 - 1000 - 1024 - 2000 - 2048 - 2500 - 4000 - 4096
5000 - 8000 - 8192 - 10000
*Other PPRs are on request

Supply Voltage and output circuit :

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