

Linear & Bearingless encoders

Resolution 1...524.288 pulses



FNC MRR Series, Incremental Radial



Features

- Resolution up to 0,001 mm
- Robust mechanical and electrical construction
- Protection to IP67
- Periodic reference signal
- MRR200 (Rotary)

Resolution Options :

512, 1024, 1600, 2048, 3200, 4096, 524.288

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	See part number selection
Reference signal	Zero pulse, width 90° 180°, 360° optional
Output signals	90° shifted A and B, Z + inverted
Output circuit	Linedriver/RS422 Push-pull short-circuit proof
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Approval	CE

Technical data - mechanical design

Pole Length	2mm for MRR200 tape
Protection DIN EN 60529	IP 67
Travel speed	≤10000 rpm
Starting torque	≤0.025 Nm (IP 67)
Materials	Ring : Stainless Steel
System accuracy	0,3° mm depends on mechanical tolerance * for higher accuracy please contact
Repeat	±10um
Operating temperature	-10...+70 °C
Storage temperature	-30 °C up to +70 °C
Weight approx.	250 g

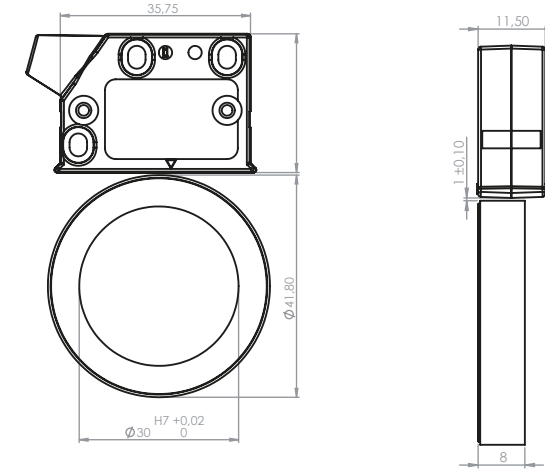
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Mechanical Dimensions

Cable/Connector Wiring Part Number

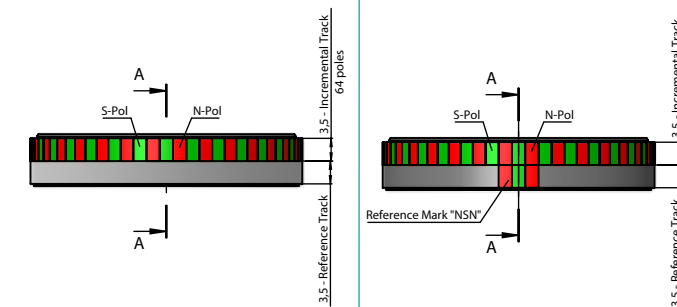
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Mechanical Dimensions

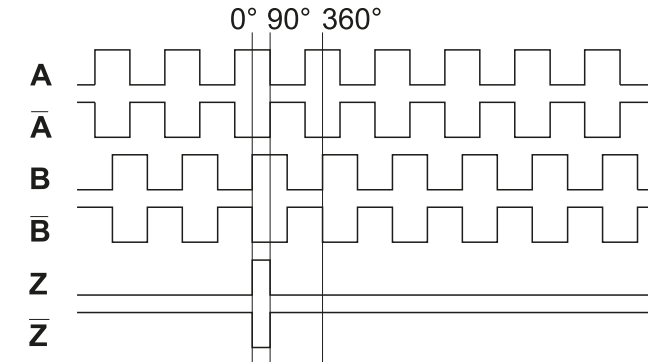


2 channel ring magnet AB

3 channel ring magnet ABZ



Pulse Diagram



Cable Wiring

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

Encoder Part Number

FNC MRR S C 6 30V 1024 N - R2

Flange Type:
S : Sensor Head

C : Cover Type
P : Pcb Type

Output Channels
1 : A
2 : AB
3 : ABZ (only with 3 channels ring)
4 : AB+A' B'
6 : ABZ+A' B' Z' (only with 3 channels ring)

Supply Voltage and output circuit :
5V : 5V in / out
245V : 5-30V in 5V out
30V : 5-30V in / out

Electrical Connections:
Cable
R2 : radial 2m, shield not connected (standart)

Connector:
R1204

N : without reference magnet
Z : with reference magnet

PPR Options :
512 - 1024 - 1600 - 2048 - 3200 - 4096 - ... 524288

Ring Part Number

FNC MRR 64P 2 41 30

Poles :
64P : 64 Poles

Channels
2 : Two channel AB magnet
3 : Three channel ABZ magnet

Inner Diameter
30 : 30 mm
(other dimensions on request)

Outer Diameter
41 : 41 mm