

# Linear & Bearingless encoders

Resolution 1...4096 pulses



## FNC MBI44 Series



### Features

- Off - Axis Incremental rotary encoder
- Robust mechanical and electrical construction
- Corrosion resistant magnetic ring
- Outer diameter 50 mm
- Inner diameter 35 mm
- Up to 4096 PPR max.
- <300 kHz frequency
- Magnetic system

### PPR Options :

64 - 128 - 256 - 512 - 1024 - 2048 - 4096

### 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... up to 4096
Output frequency	>200 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

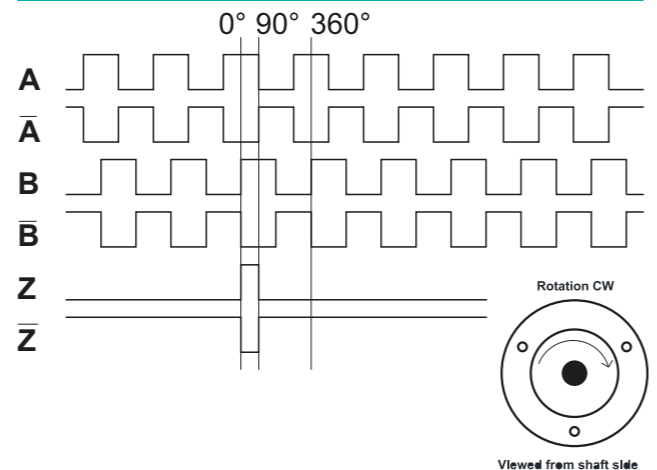
### Technical data - mechanical design

Dimensions (ring)	ø44-58 mm
Protection DIN EN 60529	IP54, IP65
Operating speed	≤10000 rpm
Starting torque	≤0.025 Nm (IP 67)
Materials	Aluminium
Shaft diameter:	6, 8, 10, M6, M7 mm ( other diameters on request )
Operating temperature	-20...+85 °C
Storage temperature	-30 °C up to +90 °C
Weight approx.	350 g

### 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

### Pulse Diagram

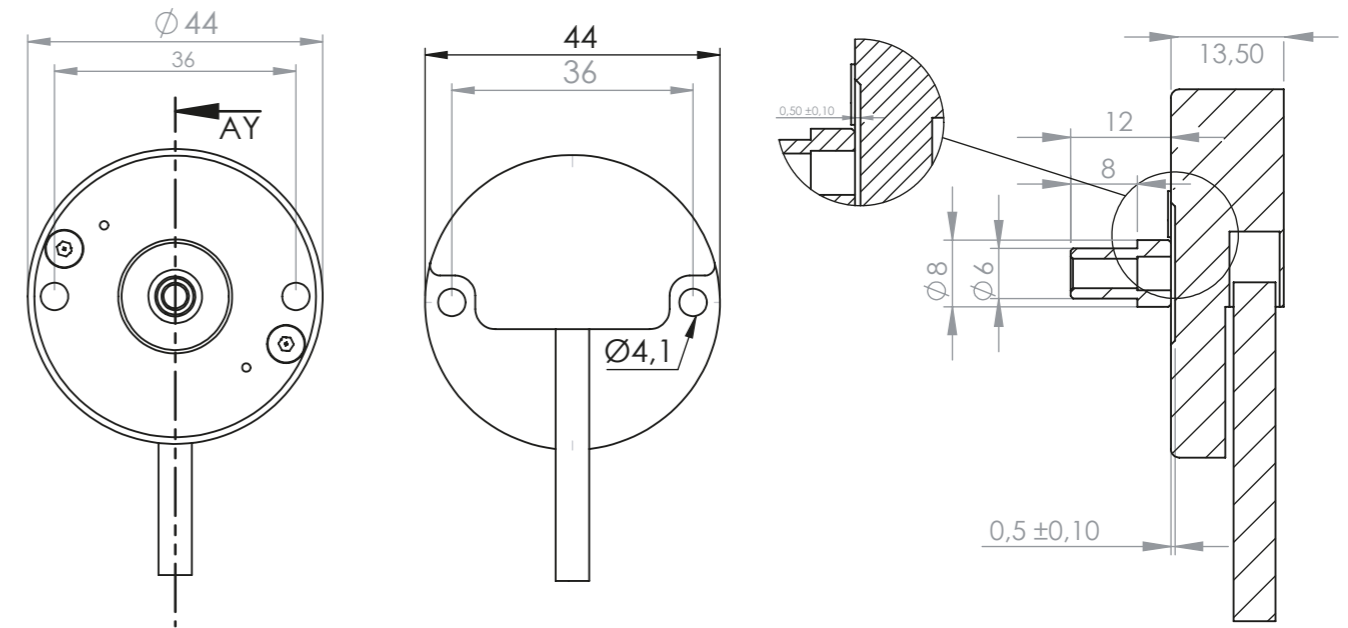


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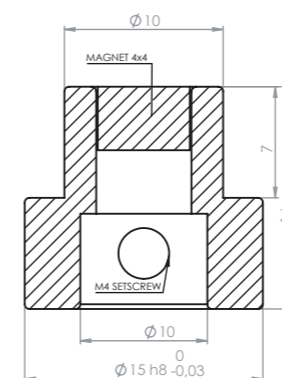
Mechanical Dimensions  
Cable/Connector Wiring, Part Number

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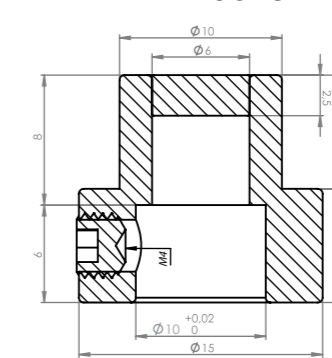
### Mechanical Dimensions



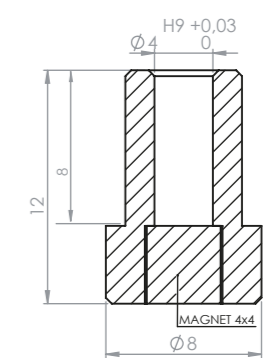
MHB1044



MHB10625



MHM04



### Encoder Part Number

**FNC MBI 44**      **6**      **30V**      **1024**      -      **R2**

<b>Housing:</b> 44 : 44mm 58 : 58mm flange	<b>Electrical Connections:</b> Cable R2 : radial2m, shield not connected (standart)
<b>Output Channels</b> 1 : A                      4 : AB+A' B' 2 : AB                    6 : ABZ+A' B' Z' 3 : ABZ	<b>PPR Options :</b> 64 - 128 - 256 - 512 - 1024 - 2048 - 4096
<b>Supply Voltage and output circuit :</b> 5V : 5V in / out                      30V : 5-30V in / out 245V : 5-30V in 5V out	

### Magnet Holder Part Number

**MHM04** : Magnet Holder Medium Version      **MHB1044** : Magnet Holder for M6x2,5 magnet  
**MHB10625** : Magnet Holder Big Version