

# Bearingless encoders

Resolution 8 to 18 bit for Absolute Version  
SSI / BISS Interface



## FNC MAR9055 Series, Absolute Axial

### Features

- Off - Axis absolute rotary encoder
- Robust mechanical and electrical construction
- Corrosion resistant magnetic ring
- Outer diameter 90 mm
- Inner diameter 55 mm
- Up to 18 bit for absolute rotary encoder
- <300 kHz frequency
- Magnetic system

### Technical data - electrical ratings

Voltage supply	4.75VDC to 5.5VDC
Protection:	Output short circuit protection. Reverse polarity protection
Consumption w/o load	≤60 mA
Output circuit	Linedriver/RS422
EMC Standars	EN 61000-6-2 / EN 61000-6-4
Approval	CE

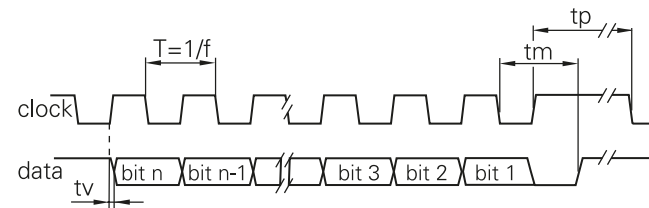
### Technical data - mechanical design

Dimensions (ring)	ø90 mm
Protection DIN EN 60529	IP54, IP65
Operating speed	≤10000 rpm
Matetials	Ring: Aluminum
Operating / Storage temperature	-20...+85 °C / -30°C ...+90°C
Weight approx.	200 g

### Cable Wiring

Function	Color
+VB	Brown
GND	White
Clock+	Blue
Clock-	Blue-black
Data+	Orange
Data-	Orange-black

### Pulse Diagram for Absolute Version



Clock frequency, f	50...2000 kHz for SSI up to 10MHz for BISS
Code	Binary or gray
Status and parity bit	On request
Monoflop time tm	>15µs
Clock timeout	Programmable at factory

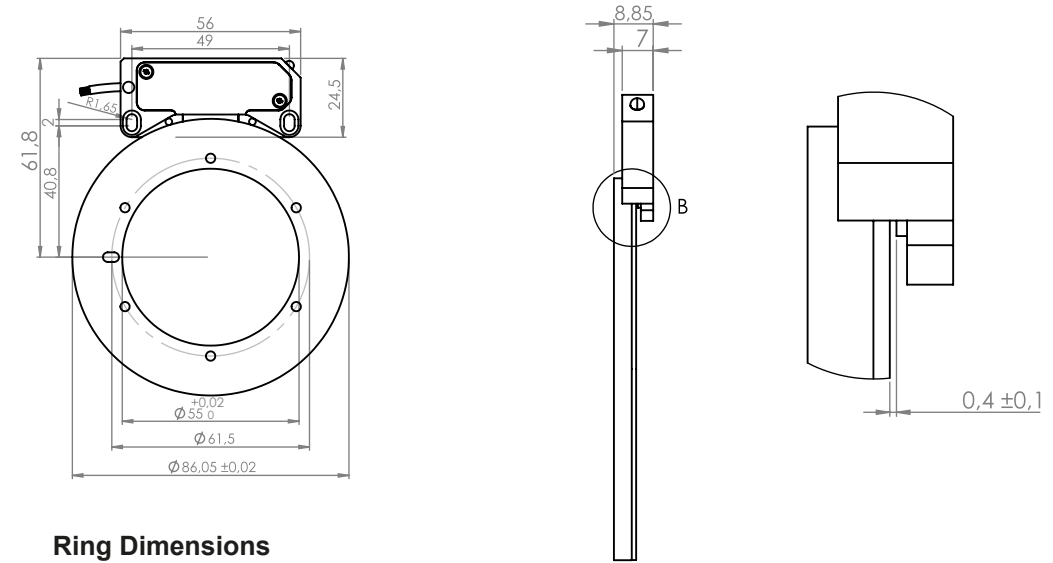
# Bearingless encoders

Mechanical Dimensions  
Cable/Connector Wiring, Part Number



## FNC MAR9055 Series, Absolute Axial

### Mechanical Dimensions



### Ring Dimensions

P.S. When the magnet and pcb are positioned correctly, the green led lights up constantly. The red led indicates errors received ( distance, wrong positioned magnet etc.)

### Encoder Part Number for Absolute Version

