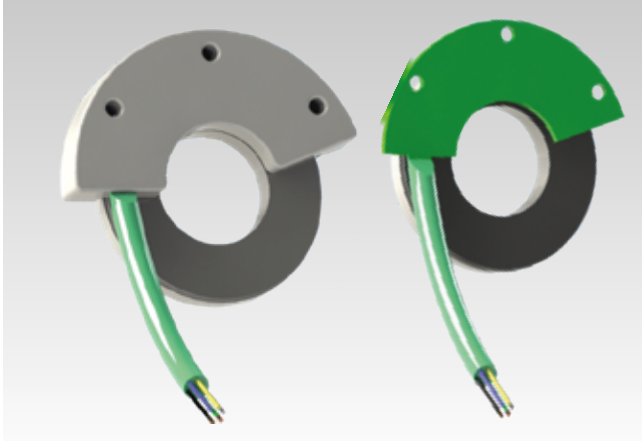


Bearingless encoders

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



FNC MAR3015 Series, Absolute Axial



Features

- Off - Axis absolute rotary encoder
- Robust mechanical and electrical construction
- Corrosion resistant magnetic ring
- Outer diameter 30 mm
- Inner diameter 15mm
- 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

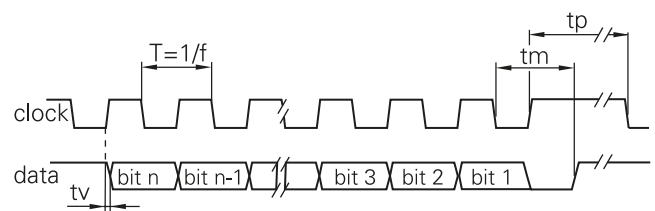
| | |
|---------------------------------|-------------------------------|
| Dimensions (ring) | ø30 mm |
| Protection DIN EN 60529 | IP54, IP65 |
| Operating speed | ≤10000 rpm |
| Matetials | Ring: Aluminum |
| Operating / Storage temperature | -20...+85 °C / -30°C ...+90°C |
| Weight approx. | 200 g |

Cable Wiring

Function Color

| | |
|--------|--------------------------------------------------------------------------------------------------|
| +VB |  Brown |
| GND |  White |
| Clock+ |  Blue |
| Clock- |  Blue-black |
| Data+ |  Orange |
| Data- |  Orange-black |

Pulse Diagram for Absolute Version

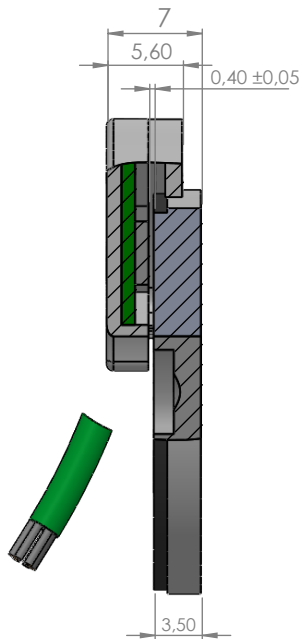
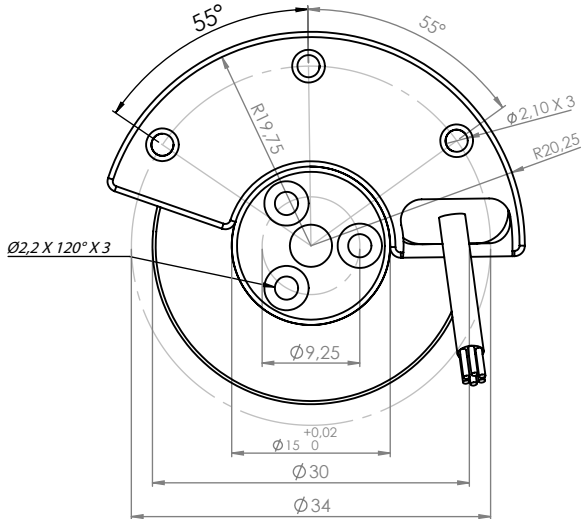


| | |
|-----------------------|-----------------------------------------------|
| Clock frequency, f | 50...2000 kHz for SSI up to 10MHz for BISS |
| Code | Binary or gray |
| Status and parity bit | On request |
| Monoflop time tm | >15µs |
| Clock timeout | Programmable at factory |

FNC MAR3015 Series, Absolute Axial

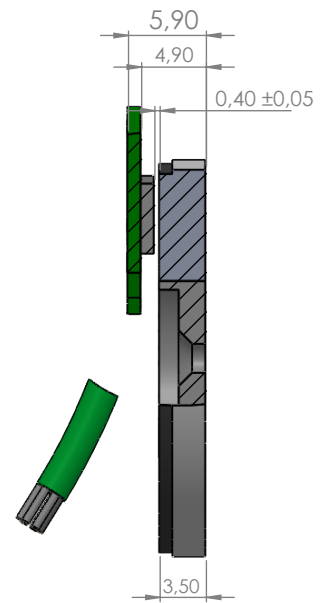
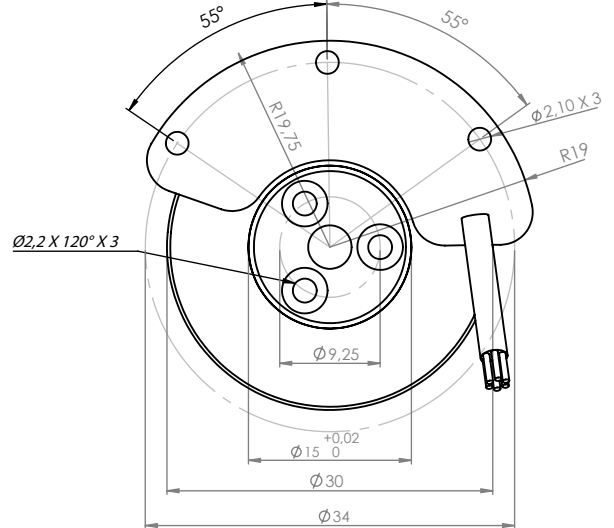
Mechanical dimension

Cover Type, Inner Diameter 4 mm, Screw Mounting



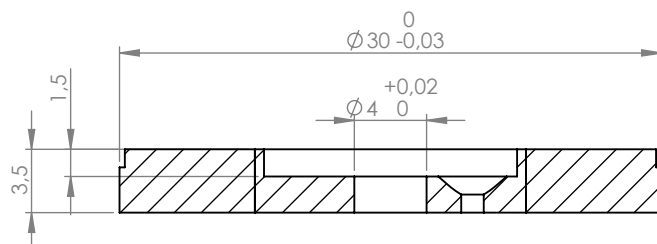
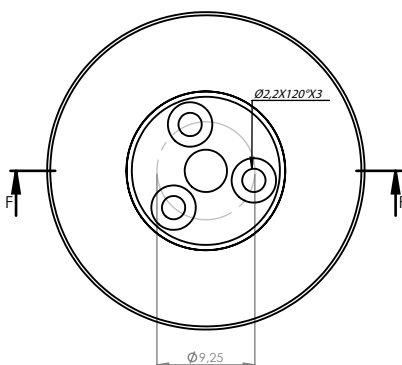
R00/02.06.22

PCB Type, Inner Diameter 4 mm, Screw Mounting



R00/02.06.22

Ring Dimensions, Inner Diameter 4 mm, Screw Mounting



Magnetic Ring Part Number : **FNC MAR1324SM**

Bearingless encoders

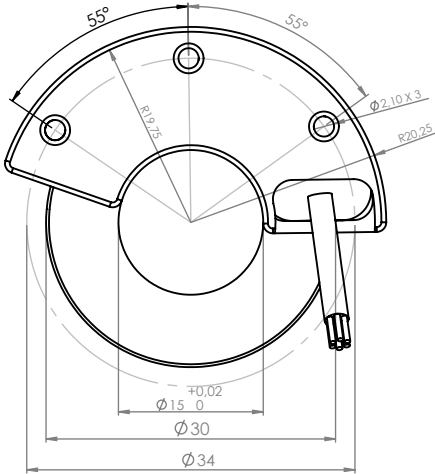
Resolution 8 to 18 bit for Absolute Version
SSI / BISS Interface



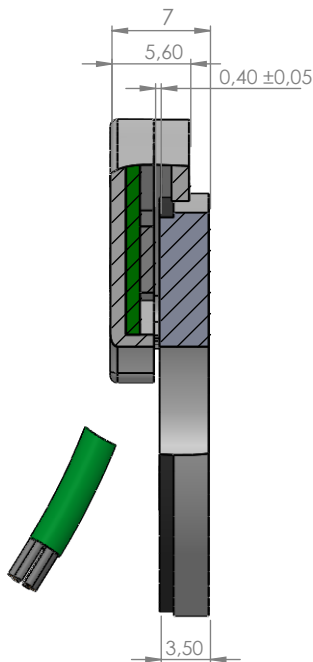
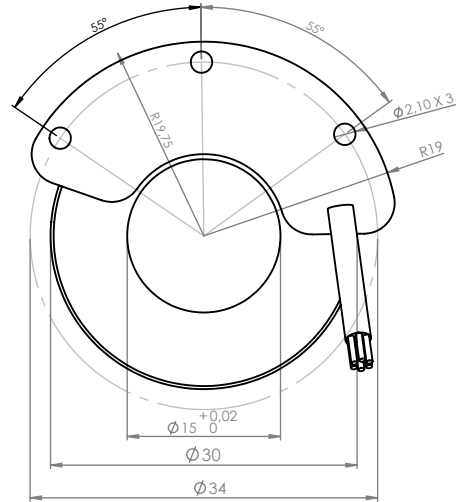
FNC MAR3015 Series, Absolute Axial

Mechanical dimension

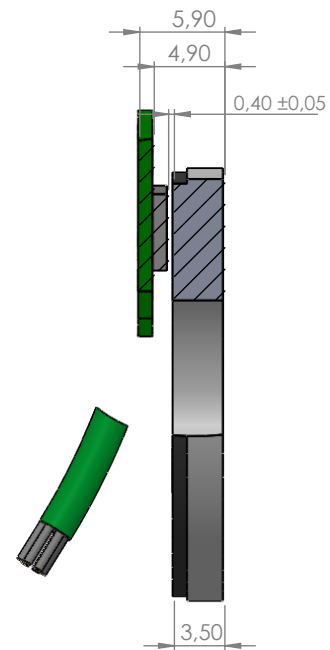
Cover Type, Inner Diameter 15 mm



PCB Type, Inner Diameter 15 mm

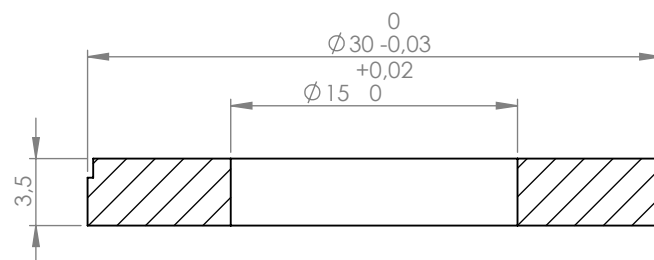
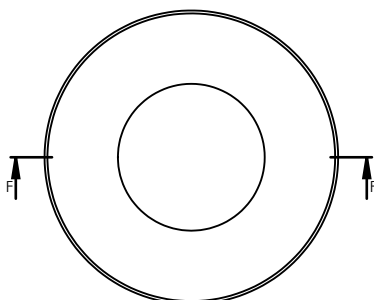


R00/02.06.22



R00/02.06.22

Ring Dimensions, Inner Diameter 15 mm

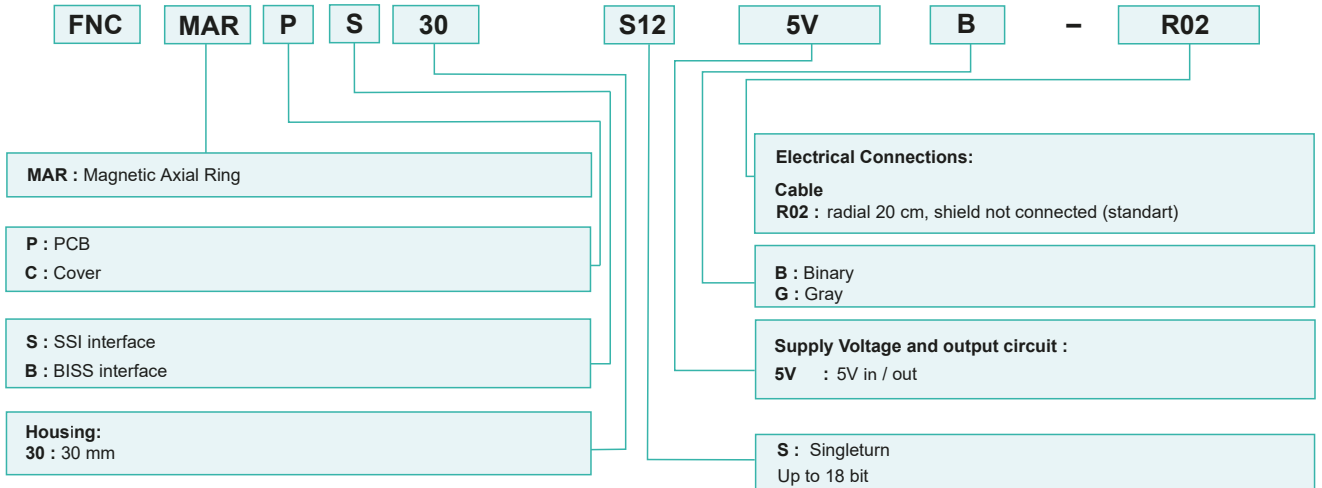


Magnetic Ring Part Number : **FNC MAR13215**

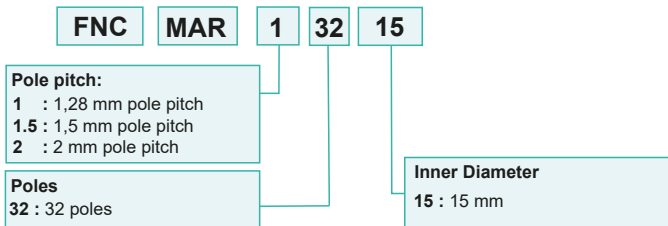
P.S. When the magnet and pcb are positioned correctly, the green led lights up constantly. The red led indicates errors received (distance, wrong positioned magnet etc.)

FNC MAR3015 Series, Absolute Axial

Encoder Part Number



Magnetic Ring Part Number, Inner Diameter 15 mm



Magnetic Ring Part Number, Inner Diameter 4 mm with Screw Mounting

