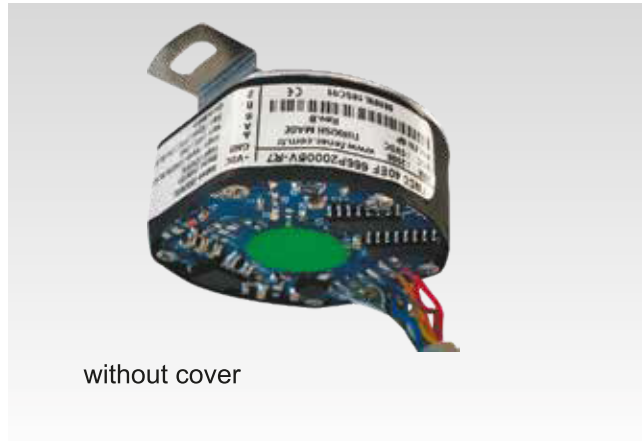


# Absolute commutation encoders

Resolution 1...5000 pulses



## FNC 46MFS Serial Motor Feedback Encoder



### Features

- Industry 46 mm, through hollow shaft
- Robust mechanical and electrical construction
- Protection up to IP67



### Technical data - mechanical design

Dimensions (flange)	ø40 mm
Shaft loading	≤80 N axial ≤100 N radial
Protection DIN EN 60529	IP 67
Operating speed	≤10000 rpm
Starting torque	≤0.025 Nm (IP 67)
Materials	Housing: Aluminium Flange: Aluminium Shaft : Stainless steel
Shaft diameter:	4, 5, 6, 7, 8 mm ( other diameters on request )
Bearings lifetime:	2x10 <sup>9</sup> rev. at 100% of full rated shaft load (minimum)
Operating temperature	-20...+85 °C
Storage temperature	-30 °C up to +90 °C
Weight approx.	250 g

### 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...5000
Reference signal	Zero pulse, width 90° 180°, 360° optional
Optoelectronic life time	100.000 (min)
Output frequency	>200 kHz
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

# Absolute commutation encoders

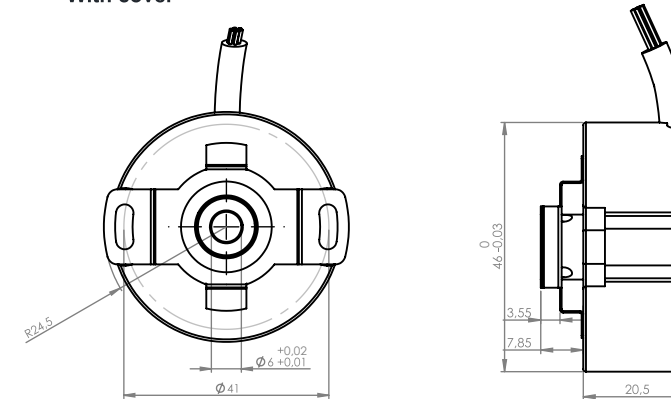
Mechanical Dimensions  
Cable/Connector Wiring, Part Number



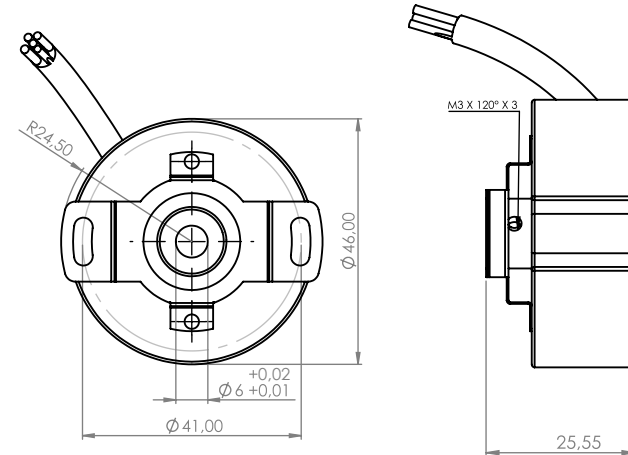
## FNC 46MFS Serial Motor Feedback Encoder

### Mechanical Dimensions

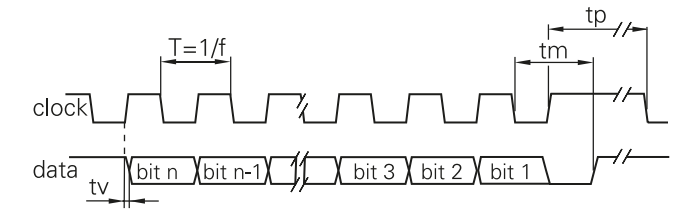
With cover



Without cover



### Pulse Diagram



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 time out	Programmable at factory

### Cable / Connector Wiring

Connector	Core colour	Signals	Description
Pin 1	blue	Clock+	Clock signal
Pin 2	blue-black	Clock-	Clock signal
Pin 3	orange	Data+	Data signal
Pin 4	orange-black	Data-	Data signal
Pin 5	gray	Zero	Zero setting input
Pin 6,7,8,9	-	n.c.	-
Pin 10	gray-black	up/down	direction input
Pin 11	white	0 V	GND
Pin 12	brown	+Vs	Supply voltage

Screen: not connected to housing  
Cable data: 4 x 2 x 0.14 mm<sup>2</sup>

### Encoder Part Number

