

Absolute encoders - SSI / BiSS

Shaft with clamping or synchro flange
Single turn 9...19 bit,



FNC AS 27 Series



Features

- Encoder single - or multturn /SSI - BiSS
- Magnetic or optical sensing
- Single turn resolution up to 21 bit
- Synchro flange
- System monitoring with error/warning messaging
- Optional Preset and direction input
- Small form factor with sense position data

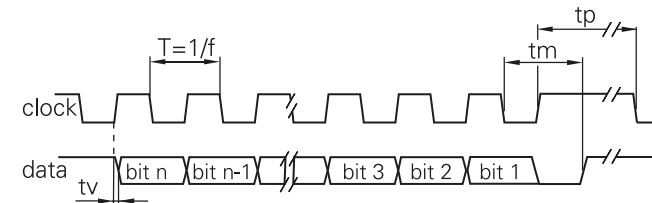
Technical data - electrical ratings

Voltage supply	5V
Protection:	Output short circuit protection. Reverse polarity protection (except 5V version)
Consumption w/o load	≤80 mA (5VDC)
Interface	SSI or BiSS
Resolution (steps/turn)	Magnetic: 14 bit Optic: 21 bit
Absolute accuracy	Magnetic: ±0,1° Optic: ±0,01°
Optoelectronic life time	100.000 (min)
Code	Gray or binary
Inputs	SSI differential clock Direction Electronic zero setting
Output frequency	up to 2MHz (SSI) up to 10MHz (BiSS)
Output circuit	SSI data linedriver RS485
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Approval	CE

Technical data - mechanical design

Dimensions (flange)	Ø 27 mm
Shaft loading	≤20 N axial ≤40 N radial
Protection DIN EN 60529	IP 67
Operating speed	≤10000 rpm
Starting torque	≤0.001 Nm (IP 67)
Materials	Housing, Flange : Aluminium Shaft : Stainless steel
Shaft diameter:	3, 4 mm (other diameters on request)
Bearings lifetime:	2x10 ⁹ rev. at 100% of full rated shaft load (minimum)
Operating temperature	-40...+90°C -40 °F ... +180 °F
Weight approx.	250 g

Pulse Diagram



Clock frequency, f	100...2000 kHz for SSI up to 10MHz for BiSS
Code	Binary or gray
Status and parity bit	On request
Monoflop time tm	> 20 µs

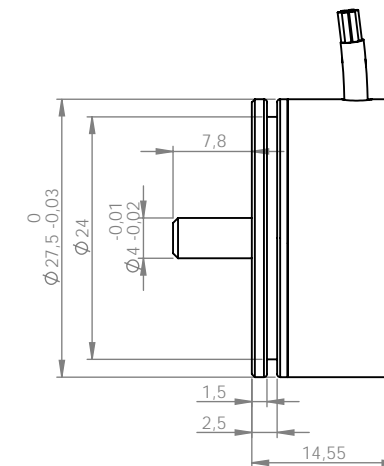
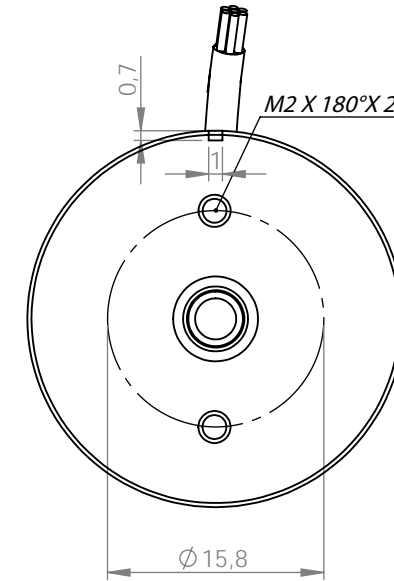
Absolute encoders - SSI / BiSS

Mechanical Dimensions
Cable/Connector Wiring, Part Number



FNC AS 27 Series

Mechanical Dimensions



Terminal significance

Function	Color	Renk
+VB	Brown	Kahve
GND	White	Beyaz
CLK+	Blue	Yeşil
CLK-	Gray	Gri
DATA+	Orange	Turuncu
DATA-	Pink	Pembe

Note: If needed, Include termination resistor R=120 Ohm between Data+ and Data- on control side.

Encoder Part Number

