

Absolute encoders - SSI / BiSS



Shaft with clamping or synchro flange
Optical singleturn encoder 12...19 bit,
Multi turn 12...24 bit

FNC AS58 Series



Features

- Encoder singleturn / SSI
- Optical sensing
- Single turn Resolution: 12...19 bit
- Multi turn 12...24 bit
- Clamping flange or synchro flange
- Permanent check of code continuity
- Extreme resistance to shock and vibration
- Encoder with electronic reset

Technical data - electrical ratings

Voltage supply	5.5VDC to 30VDC 4.75VDC to 5.5VDC
Protection:	Output short circuit protection. Reverse polarity protection (except 5V version)
Consumption w/o load	≤50 mA (24 VDC)
Interface	SSI or BiSS
Resolution (steps/turn)	up to 19 bit
Absolute accuracy	±0.025°
Optoelectronic life time	100.000 (min)
Code	Gray or binary
Inputs	SSI differential clock Direction Electronic zero setting Chip select (Optional)
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

Accessories

Connectors and cables

CRM2312R M23 12 poles female connector or see page 64

Mounting coupling

PF481010 metal coupling or see page 62

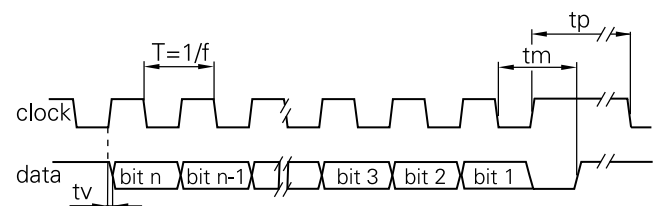
Mounting accessories

TEO Spring or see page 60-61

Technical data - mechanical design

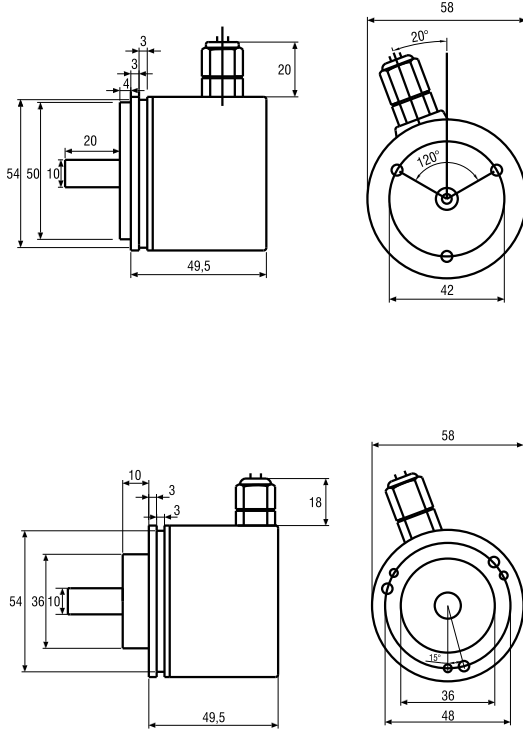
Dimensions (flange)	ø58 mm
Shaft loading	≤140 N axial ≤240 N radial
Protection DIN EN 60529	IP 67
Operating speed	≤10000 rpm
Starting torque	≤0.025 Nm (IP 67)
Materials	Housing, Flange : Aluminium Shaft : Stainless steel
Shaft diameter:	6, 8, 10, 12 mm (other diameters on request)
Bearings lifetime:	2x10 ⁹ rev. at 100% of full rated shaft load (minimum)
Operating temperature	-40...+110 °C -40 °C up to +120 °C (Storage)
Weight approx.	250 g

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

Mechanical Dimensions



Cable Wiring / Connector

Function	Connector	Color	Renk
+VB	pin 1	Brown-Green	Kahve-Yeşil
GND	pin 2	White-Green	Beyaz-Yeşil
CLK+	pin 3	Gray	Gri
CLK-	pin 7	Pink	Pembe
DATA+	pin 4	Yellow	Sari
DATA-	pin 6	Purple	Mor
ZERO SET	pin 5	Black	Siyah
DIRECTION	pin 9	Red	Kırmızı
CHIP SELLECT	pin 10	Green	Yesil

Encoder Part Number

FNC **A** **S** **58** **B** **10** **S12** **M00** **30V** **B** - **R2**

Absolute

S: SSI **PA**: Parallel **E**: EtherCAT
B: BiSS **D**: DeviceNet **CL**: CanOpen Lift
C: CanOpen **PR**: Profibus **I**: Interbus

Housing:

58: 58mm

Flange Type:

S: Servo flange
B: Clamping flange

Shaft diameter: 6, 8, 12

Other dimensions on request

S: Single Turn
 12...19 bit options

Electrical Connections:

Cable
R2: radial 2m, shield not connected (standart)
A2: axial 2m, shield not connected (standart)

Connector:

CRM1204 CRM1208 CRM1607 CRM2312R
 CRM1205 CRM1212 CRM1614 CRM2312L

Military connectors optional

B: Binary
G: Gray

Supply Voltage:

5V: 5V in / out
30V: 5-30V in / out

M00: Multiturn
 Single turn : 00
 Multi turn options : 12, 16, 20, 24