Cable/Connector Wiring, Part Number

Mechanical Dimensions

Shaft with clamping or synchro flange Single turn 12...19 bit, Multi turn 4...32bit

FNC AS 58B & 58S Series

82



Features

- Encoder single or multiturn / SSI BISS
- Magnetic Sensing (Optional optical sensing)
- Optical Single turn Resolution: 12...19 bit
- Magnetic Single turn Resolution: 9...13bit
- Multi turn 4...32bit

Pulse Diagram

- 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)	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 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 206

Mounting coupling

PF481010 metal coupling or see page 204

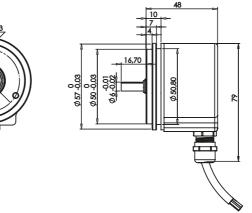
Mounting accessories

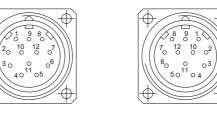
YY TEO spring or see page 202-203

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	

clock bit n \bit n-1 \frac{1}{1}	tp//- tm // // // bit 3 \(\text{bit 2 \(\text{bit 1} \) \(\text{bit 3} \)
Clock frequency, f	502000 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 58B **58S** M4 X 120° X 3





M2312L

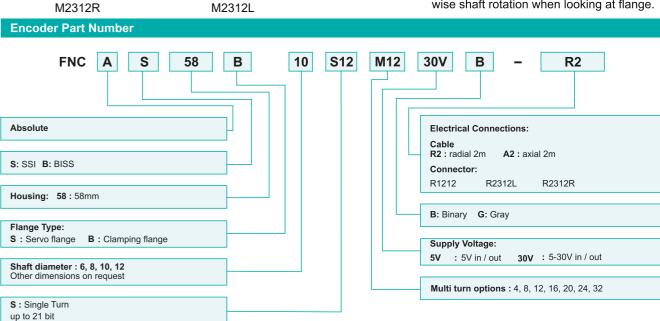
Cable / Connector M23 male					
Connector	Core colour	Signals	Description		
Pin 1	blue	Clock+	Clock signal		
Pin 2	blue-black	Clock-	Clock signal		
Pin 3	orange	Data+	Data signal		
Pin 4	orange-black	Data-	Data signal		
Pin 5	gray	Zero	Zero setting input		
Pin 6,7,8,9	_	n.c.	_		
Pin 10	gray-black	up/down	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 mm²

	Cable data: 4 x	2 X U. 14 mm²		
	Terminal sign	Terminal significance		
	+Vs	Encoder supply voltage.		
	0 V	Encoder ground connection relating to +Vs		
	Data+	Positive data output.		
	Data-	Negative data output.		
	Clock+	Positive SSI clock input.		
	Clock-	Negative SSI clock input.		
	Zero	Input for setting a zero point anywhere within the encoder resolution. The zero setting operation is triggered by a Low impulse. Connect to +Vs after setting operation for maximum interference immunity. Impulse duration >2 ms.		
	Note	Include termination resistor R=120 Ohm between Data+ and Data- on control side.		
	Direction	UP/DOWN counting direction input.		

This input is standart on High. UP/DOWN means ascending output data with clockwise shaft rotation when looking at flange.



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