

Absolute encoders - BISS+SinCos

Integral bearing for integration in motors



FNC BISS2048 Series, BISS + SinCos motorfeedback



Features

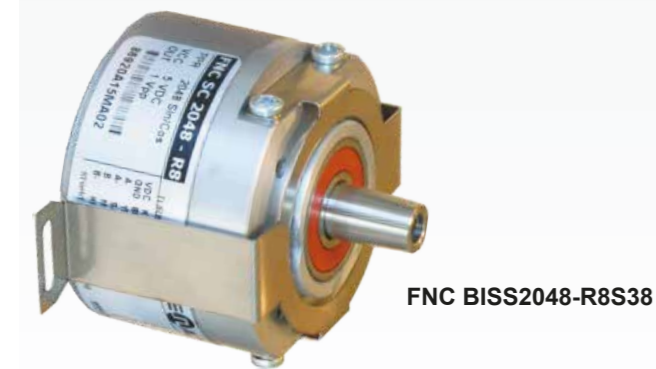
- Compact robust motor integration design
- 12...19bit BISS accurate position information
- 2048 PPR sin cosine accurate speed information
- Installation diameter 65mm
- 1:10 taper shaft
- IP67 protection class

Technical data - mechanical design

Dimensions (flange)	ø56 mm
Clamp mounting diameter	65 mm
Protection DIN EN 60529	IP 67
Operating speed	≤10000 rpm
Starting torque	≤0.03 Nm (IP 67)
Materials	Housing : Aluminium Flange : Aluminium Shaft : Stainless steel
Shaft specs	Taper shaft Ø 9.25 Taper 1:10
Operating temperature	-40...+110 °C
Storage temperature	-40 °C up to +120 °C
Weight approx.	250 g
Approval	CE

Technical data - electrical ratings

Voltage supply	4.75VDC to 5.5VDC
Protection:	Output short circuit protection. Reverse polarity protection
Consumption w/o load	≤120 mA (5 VDC)
Interface, Output	Sine cosine / 1 Vpp
Resolution (steps/turn)	up to 19 bit
Absolute accuracy	±0.17°
Absolute angle error	0.087°
Output frequency	500 kHz (max.)
Output circuit	1 Vpp incremental Sin/Cos differential driver



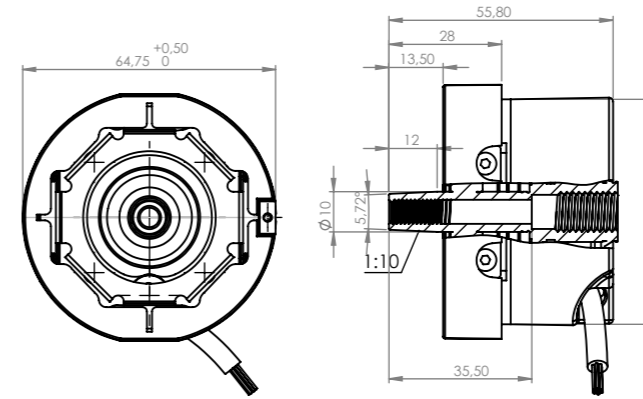
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Cable/Connector Wiring, Part Number
Pulse Diagram



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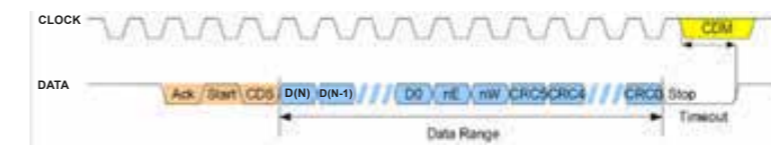
Mechanical Dimensions



Cable / Connector Wiring

Function	Connector	Color	Renk
+VB	pin 1	Brown	Kahve
GND	pin 2	White	Beyaz
A	pin 3	Green	Yeşil
A'	pin 4	Green-Black	Yeşil-Siyah
B	pin 5	Yellow	Sarı
B'	pin 6	Yellow-Black	Sarı-Siyah
C	pin 7	Blue	Mavi
C'	pin 8	Blue-Black	Mavi-Siyah
D	pin 9	Orange	Turuncu
D'	pin 10	Orange-Black	Turuncu-Siyah
Z	pin 11	Gray	Gri
Z'	pin 12	Gray-Black	Gri-Siyah
Shield	Connected to housing		

Pulse Diagram



Clock frequency, f	up to 10MHz for BISS
Code	Binary
BISS time out	12,5...40 µs
nE	Error bit (low active)
nW	Warning bit (low active)
CRC polynomial	6 bit 0x43

Encoder Part Number

