

Absolute encoders - SinCos

Integral bearing for integration in motors



FNC SC2048 Series, SinCos motorfeedback



(Standard comes with expanding coupling and 7 meter cable)

Features

- Compact robust motor integration design
- 1 Vpp / 1 PPR accurate position information
- 2048 PPR sin cosine accurate speed information
- Installation diameter 65 mm
- 1:10 taper shaft
- IP54 protection class

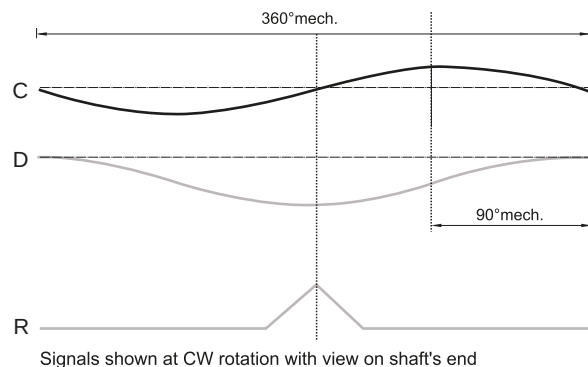
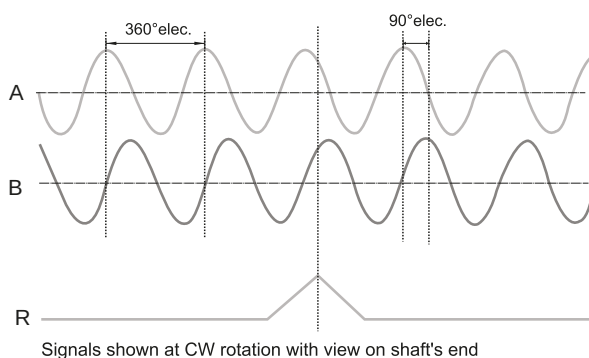
Technical data - mechanical design

Dimensions (flange)	ø56 mm
Clamp mounting diameter	65 mm
Protection DIN EN 60529	IP 54
Operating speed	≤10000 rpm
Starting torque	≤0.03 Nm
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

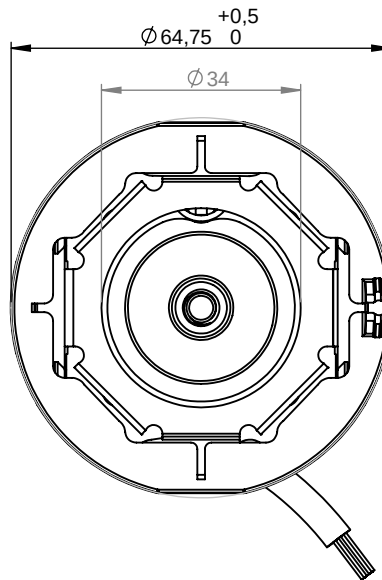
Voltage supply	4.75VDC to 5.5VDC
Protection:	Output short circuit protection. Reverse polarity protection
Consumption w/o load	≤120 mA (5 VDC)
Interface, Output	Sine cosine / 1 Vpp
Resolution (steps/turn)	2048
Absolute accuracy	±0.17°
Absolute angle error	0.087°
Output frequency	500 kHz (max.)
Output circuit	1 Vpp incremental Sin/Cos differential driver

Pulse Diagram

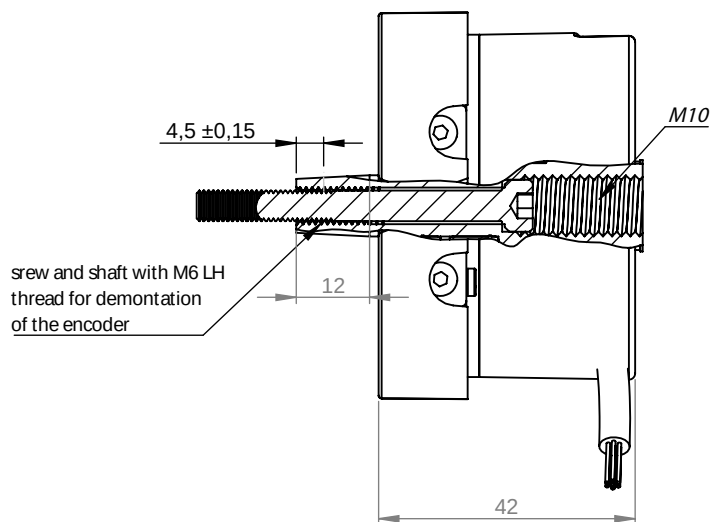


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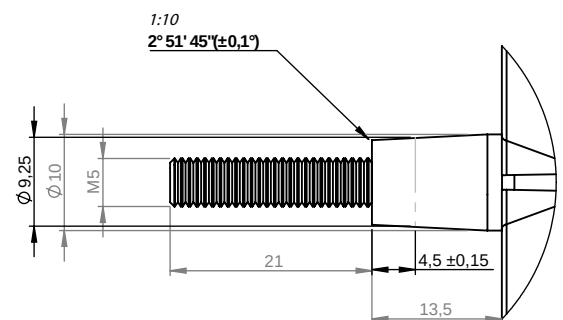
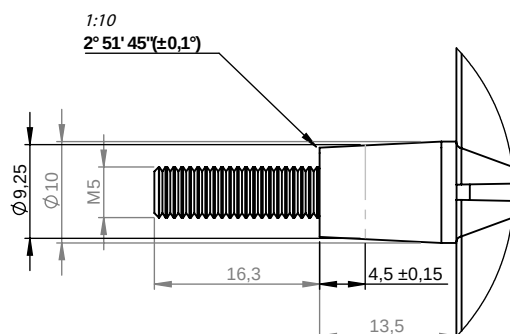
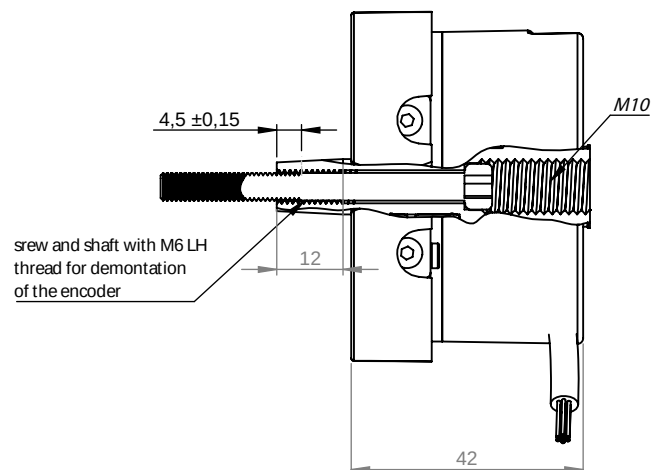
Mechanical Dimensions



CR spring version, M50 montage screw



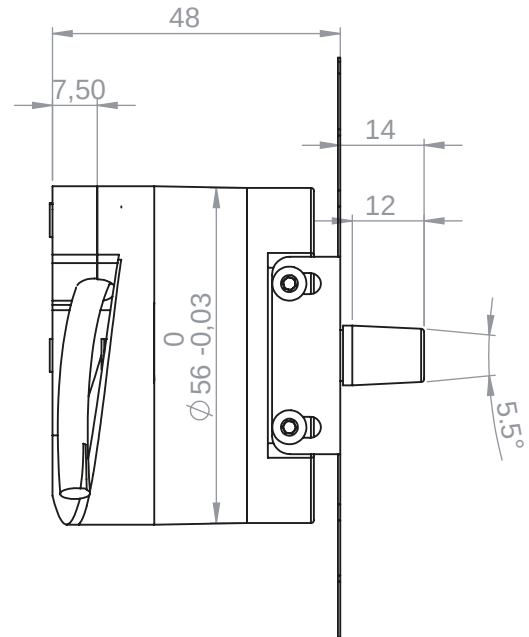
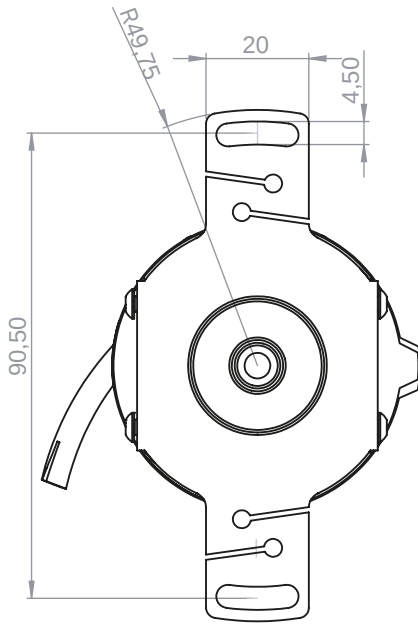
CR spring version, M55 montage screw



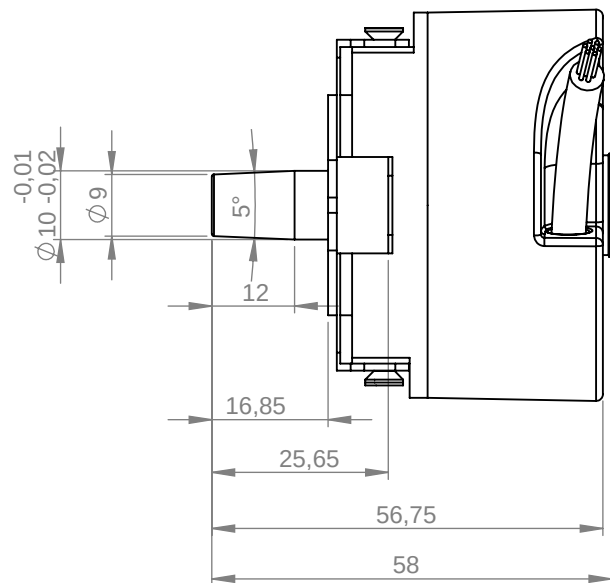
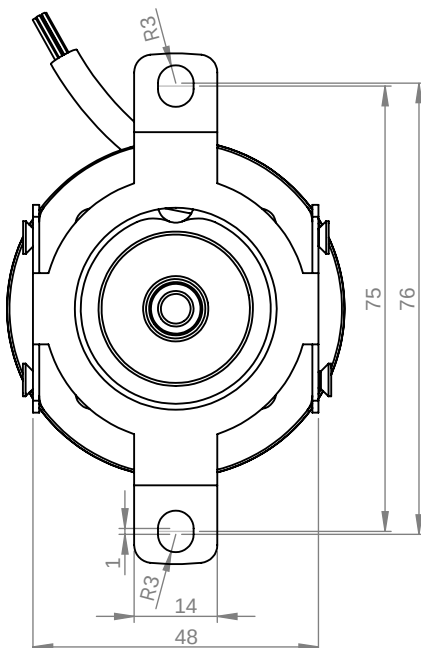
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Mechanical Dimensions

SF spring version



S8 spring version

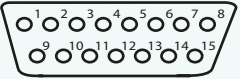
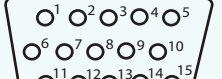


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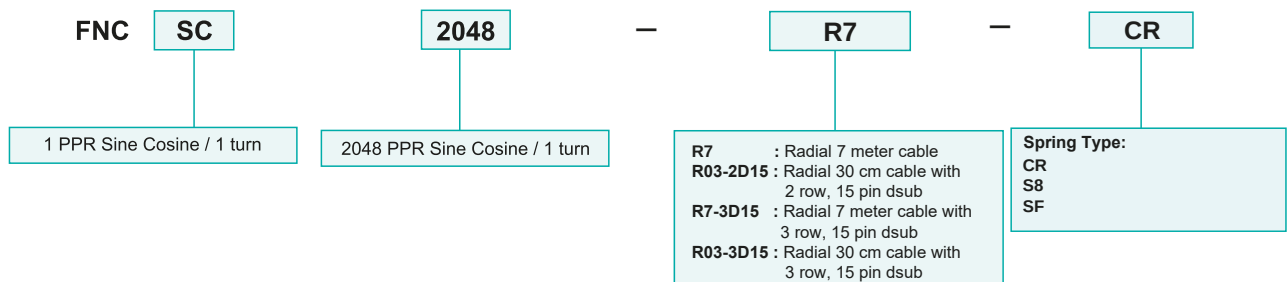
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Cable / Connector Wiring

	Function	FNC SC2048 R7 (Direct 7 meter cable)		FNC SC2048 R03-2D15	FNC SC2048 R7-3D15	FNC SC2048 R03-3D15
POWER	+VB 	Brown	Kahverengi	pin 9	pin 9	pin 9
	GND 	White	Beyaz	pin 11	pin 7	pin 7
INCREMENTAL SIGNALS	A 	Green	Yeşil	pin 1	pin 5	pin 5
	A' 	Green-Black	Yeşil-Siyah	pin 2	pin 6	pin 6
	B 	Yellow	Sarı	pin 3	pin 8	pin 8
	B' 	Yellow-Black	Sarı-Siyah	pin 4	pin 1	pin 1
	Z 	Gray	Gri	pin 12	pin 3	pin 3
	Z' 	Gray-Black	Gri-Siyah	pin 13	pin 4	pin 4
ABSOLUTE SIGNALS	C 	Blue	Mavi	pin 5	pin 10	pin 11
	C' 	Blue-Black	Mavi-Siyah	pin 6	pin 11	pin 10
	D 	Orange	Turuncu	pin 7	pin 12	pin 12
	D' 	Orange-Black	Turuncu-Siyah	pin 8	pin 13	pin 13
	Shield	Connected to housing		 2 row, 15 pin dsub	 3 row, 15 pin dsub	

Encoder Part Number



Female Cable Connector

