Absolute encoders - SinCos

Integral bearing for integration in motors

FNC SCK2048 Series, SinCos motor feedback

Features

- **Compact robust motor integration design**
- **1Vpp / 1PPR accurate position information**
- **2048 PPR sin cosine accurate speed information**
- **Installation diameter 65mm**
- **1:10 taper shaft**
- **IP67 protection class**

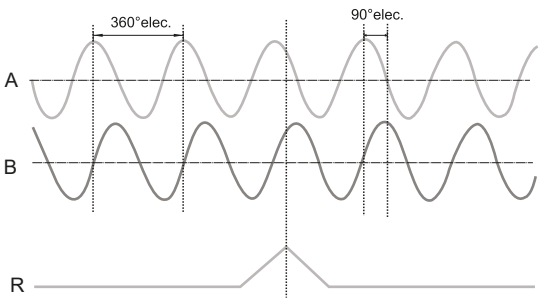
Technical data - electrical ratings

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

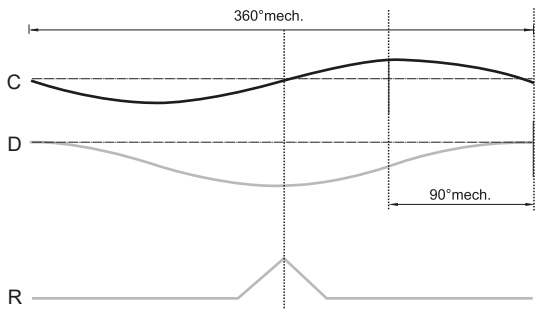
Technical data - mechanical design

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

Pulse Diagram



Signals shown at CW rotation with view on shaft's end



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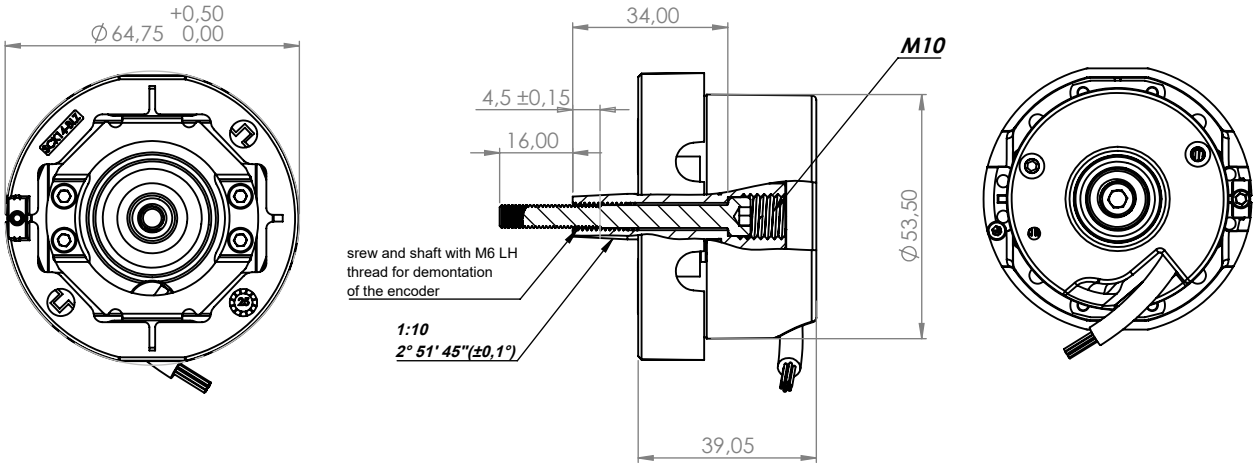
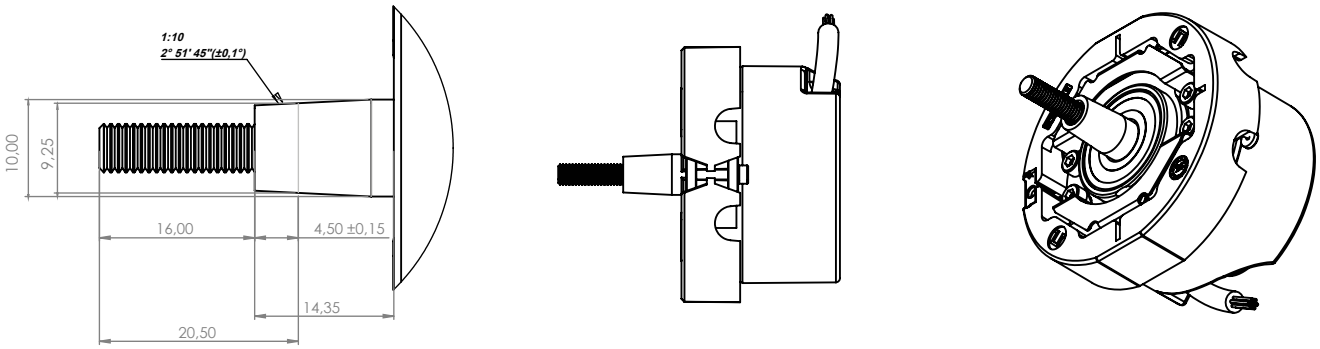
Mechanical Dimensions





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Cable Wiring

	Function	FNC SCK2048-R7	Direct 7 meter cable)
POWER	+VB	Brown	Kahverengi
	GND	White	Beyaz
INCREMENTAL SIGNALS	A	Green	Yeşil
	A'	Green-Black	Yeşil-Siyah
	B	Yellow	Sarı
	B'	Yellow-Black	Sarı-Siyah
	Z	Gray	Gri
	Z'	Gray-Black	Gri-Siyah
ABSOLUTE SIGNALS	C	Blue	Mavi
	C'	Blue-Black	Mavi-Siyah
	D	Orange	Turuncu
	D'	Orange-Black	Turuncu-Siyah
	Shield	Connected to housing	

Encoder Part Number

FNC **SCK** — 1 PPR Sine Cosine / 1 turn

2048 — 2048 PPR Sine Cosine / 1 turn

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R7 — **R7** : Radial 7 meter cable