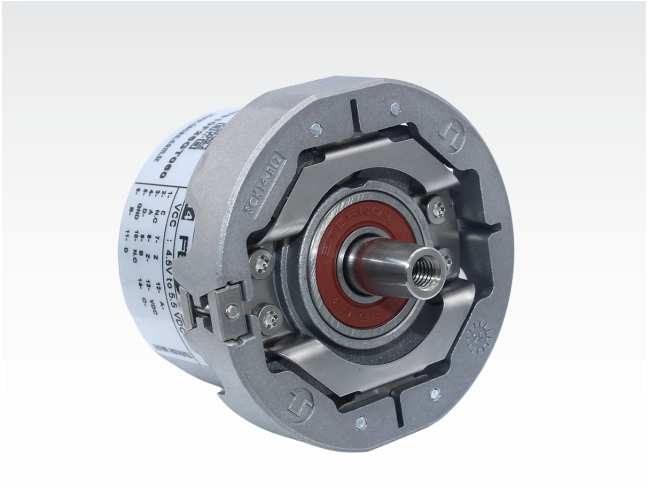
Absolute encoders - SinCos

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**

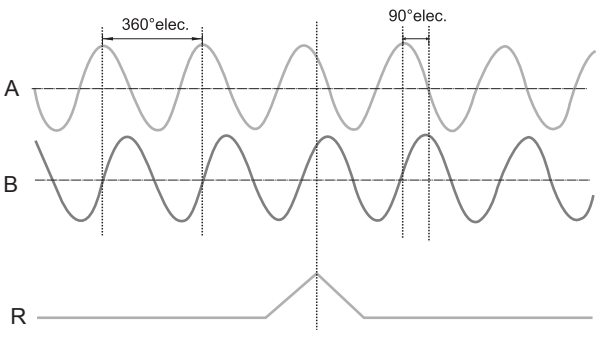
Technical data - electrical ratings

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

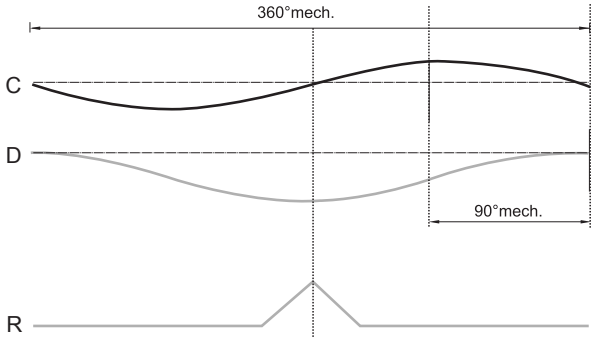
Technical data - mechanical design

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



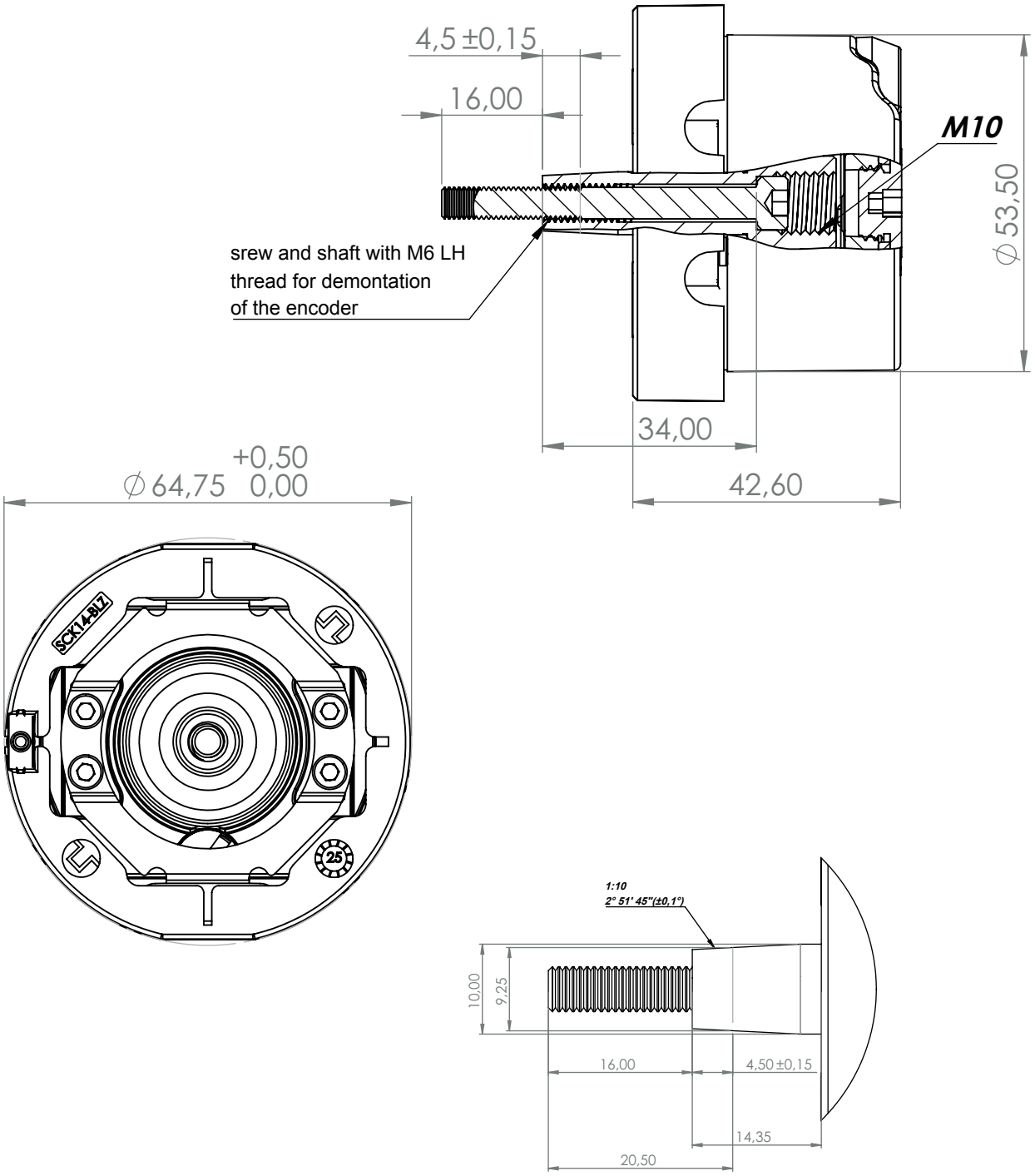
Signals shown at CW rotation with view on shaft's end



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

FNC SCK2048 Series, SinCos motor feedback

Mechanical Dimensions



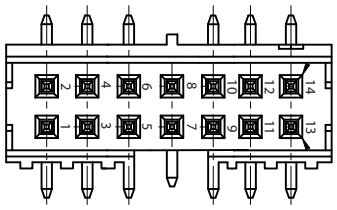
Absolute encoders - SinCos

Integral bearing for integration in motors

FNC SCK2048 Series, SinCos motor feedback

Cable / Connector Wiring

	Function	FNC SC2048 K14 (Direct 14 meter cable)			
POWER	+VB	pin 13		Brown	Kahverengi
	GND	pin 5/10		White	Beyaz
INCREMENTAL SIGNALS	A	pin 3		Green	Yeşil
	A'	pin 12		Green-Black	Yeşil-Siyah
	B	pin 9		Yellow	Sarı
	B'	pin 6		Yellow-Black	Sarı-Siyah
	Z	pin 7		Gray	Gri
	Z'	pin 8		Gray-Black	Gri-Siyah
ABSOLUTE SIGNALS	C	pin 1		Blue	Mavi
	C'	pin 14		Blue-Black	Mavi-Siyah
	D	pin 11		Orange	Turuncu
	D'	pin 4		Orange-Black	Turuncu-Siyah



Encoder Part Number

FNC **SCK** **2048** – **K14**

- **SCK**: 1 PPR Sine Cosine / 1 turn
- **2048**: 2048 PPR Sine Cosine / 1 turn
- **K14**: **K14 : 14 Pin Male Connector**

Female Cable Connector

- **K14**: **K14 : 14 Pin Female Connector**
- **R700**: **R700 :** Radial 7 meter cable

