

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

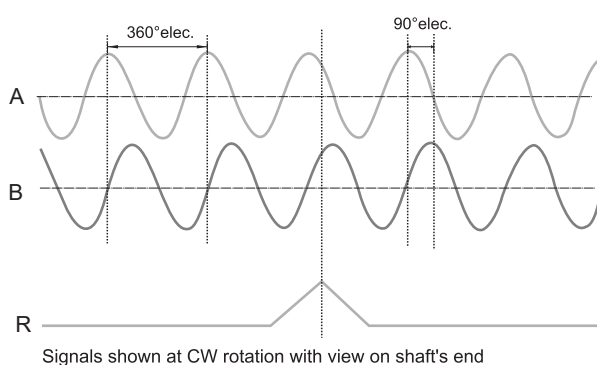
Technical data - electrical ratings

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

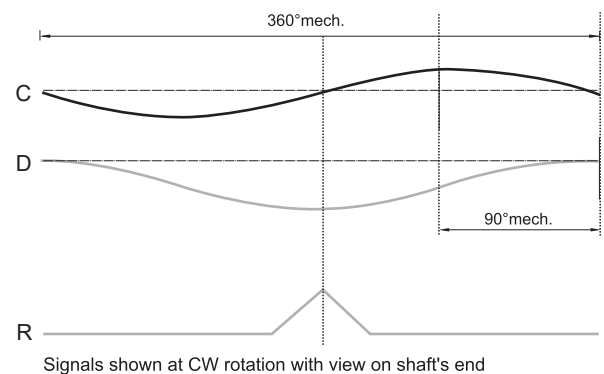
Technical data - mechanical design

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



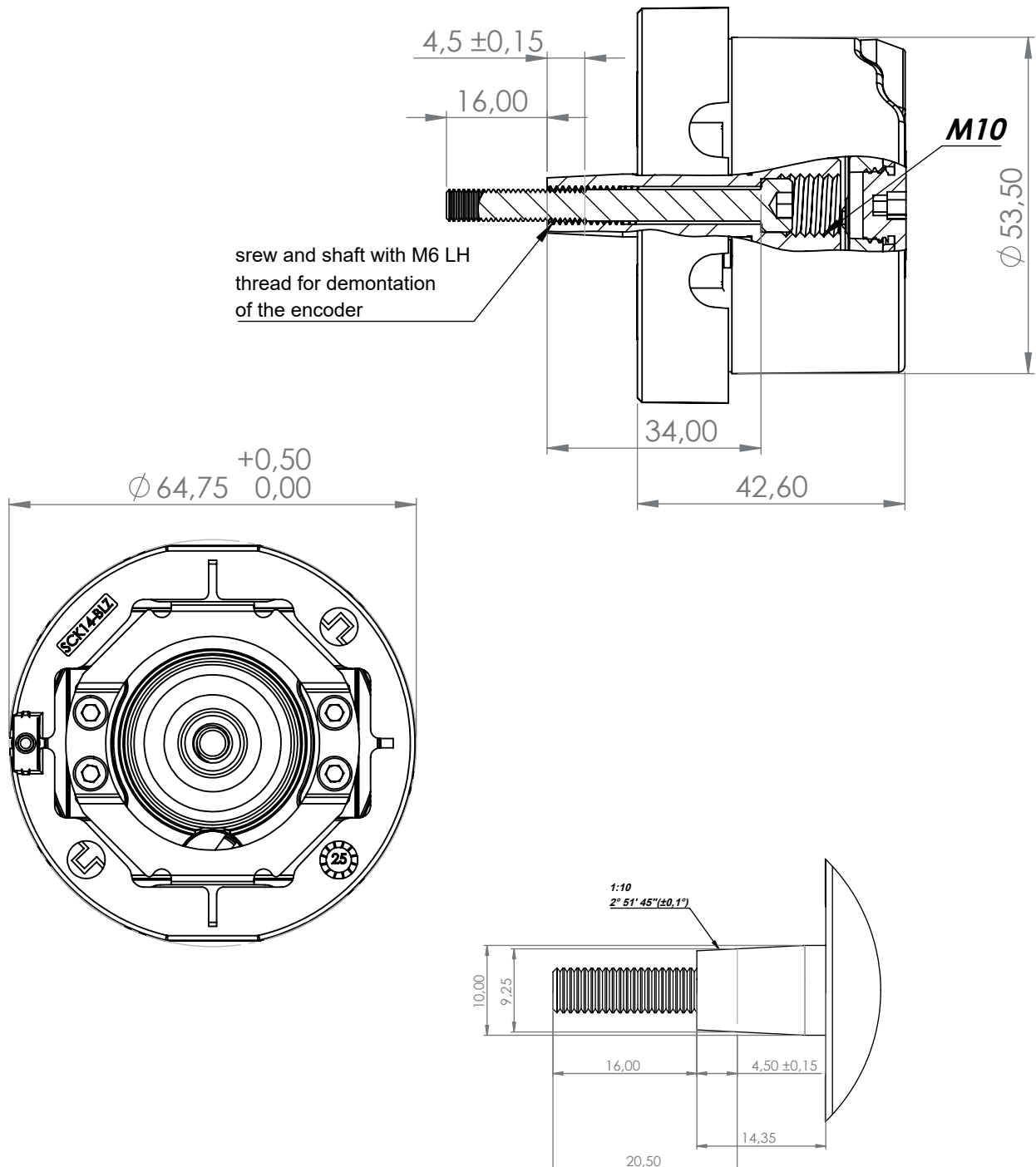
Signals shown at CW rotation with view on shaft's end



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

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Mechanical Dimensions



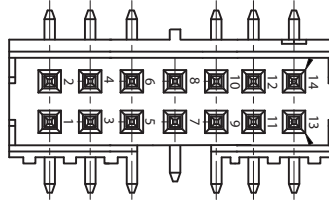
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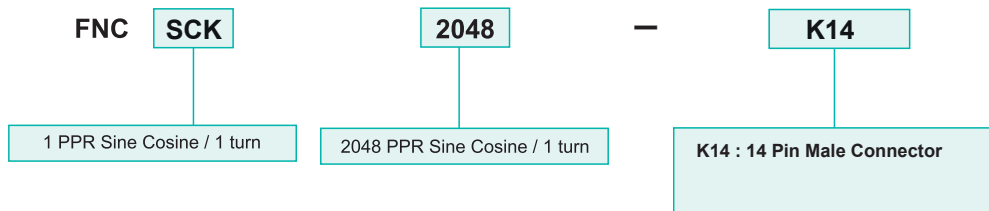
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Cable / Connector Wiring

	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



Female Cable Connector

