



Type SCA24AC

- Absolute Shaft Encoder - Ø 24 mm
- Current Output 0 – 20mA or 4 – 20mA
- Full Range Output over one Revolution or one half Revolution
- Enclosure Rating IP 64
- Formerly named SCA24AN

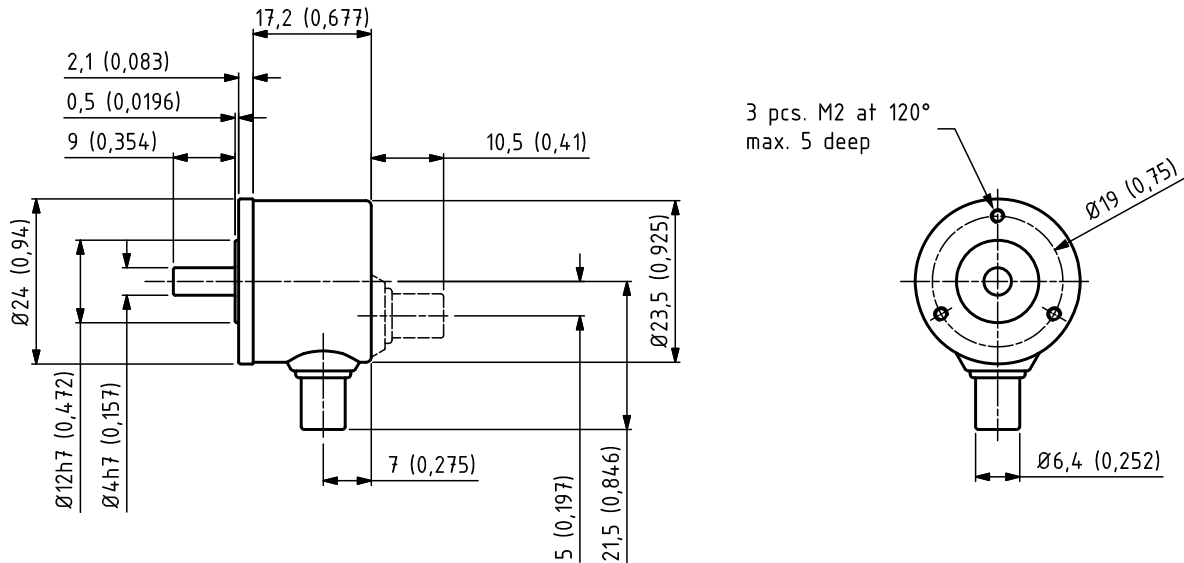
Electrical Specifications	
Encoder Type:	Absolute Magnetic
Resolution:	2 ¹⁰ (1024) points per revolution
Supply Voltage:	12 Vdc min. to 18 Vdc max. or 20 Vdc min. to 28 Vdc max.
Typical Current Consumption:	40 mA @ 20mA output current
Output Current:	0 – 20 mA or 4 – 20 mA
Accuracy:	+/- 0,2% of full scale
Output Format:	Full range output over one revolution (360°) or over one half revolution (180°)
Current Sense Resistor:	Max. 400Ω – recommended 250Ω
Output Update Rate:	2610 updates/sec. ~ 383μsec. per update
Electrical Protection:	Reverse polarity and output short circuit protected
Noise Immunity:	Tested to EN61000-6-2 : 2005 (industrial environments) Electromagnetic compatibility (EMC) and EN 61000-6-3 : 2007 (residential, commercial, and light-industrial environments) for Electromagnetic compatibility (EMC)

Mechanical Specifications	
Material:	Housing: Brass Cap: Electroplated Steel Shaft: Brass
Weight:	Encoder: ~ 50 gr (1,76 oz) Cable: 50 gr / meter (1,76 oz / meter)
Bearing Life:	> 1,9 x 10 ¹⁰ revolutions at rated load
Shaft Speed:	12.000 rpm (max.)
Starting Torque:	< 0,005 Nm (0,708 oz-in) at 25° C
Mass Moment of Inertia:	1,46 gcm ² (2,07 x 10 ⁻⁵ oz-in-sec ²)
Shaft Loads:	Axial: 20 N (4,5 lbs) max. Radial: 20 N (4,5 lbs) max.

Environmental Specifications	
Operating Temp.:	-40° to +85° C
Storage Temp.:	-40° to +85° C
Shock:	100 G / 11 ms
Vibration:	10-2000 Hz / 10 G
Bump:	10 G / 16 ms (1000 x 3 axis)
Humidity:	98 % RH without condensation
Enclosure Rating:	IP 64 / Nema 4 (approx.)

Connection Options	
Cable:	4 leads (0,14 mm ² , 26 AWG) - Standard twisted pairs; shielded

Mechanical Dimensions



Standard Cable Gland
 Side (S) or Back (B)

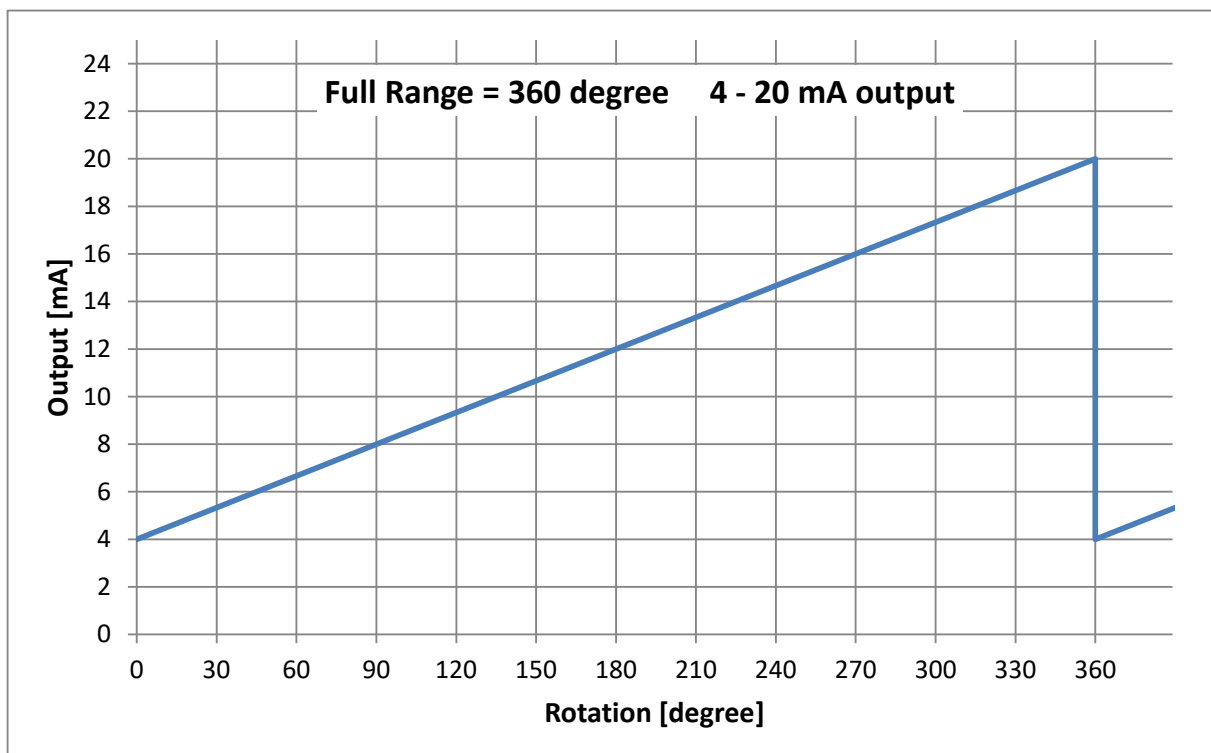
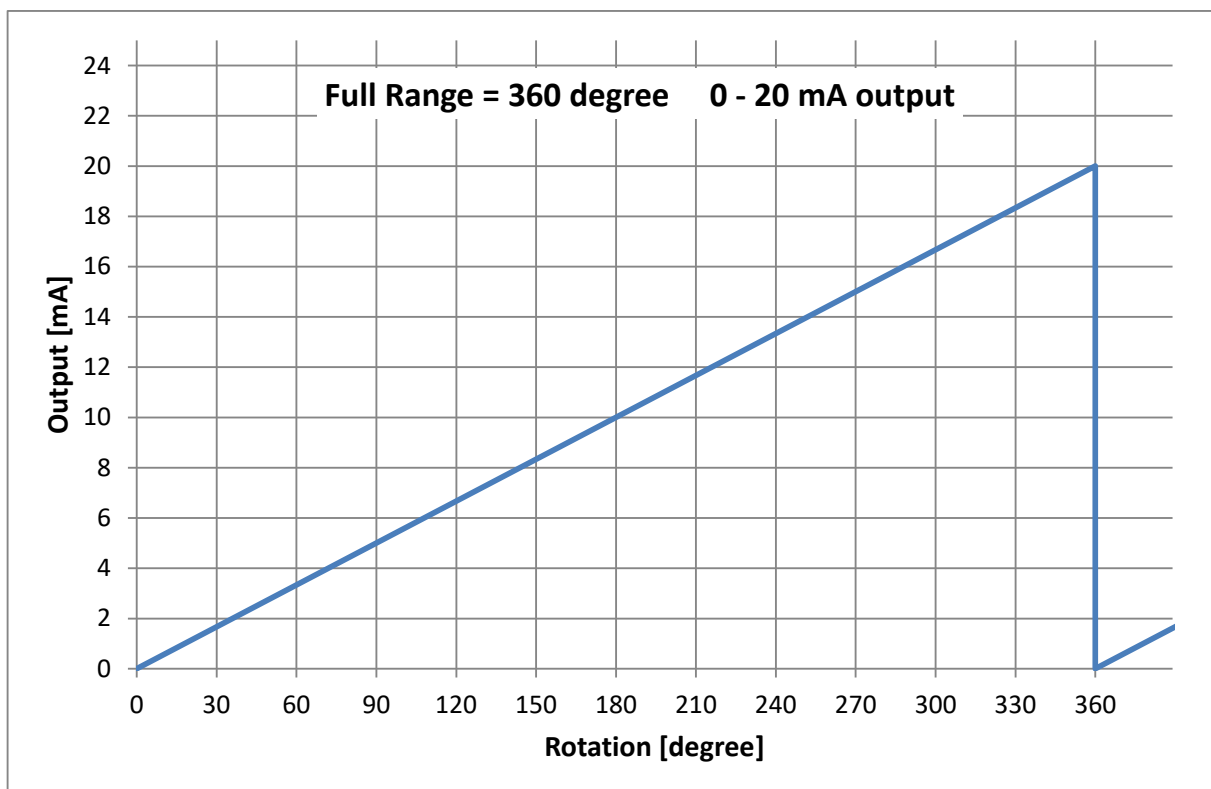
mm (inches)

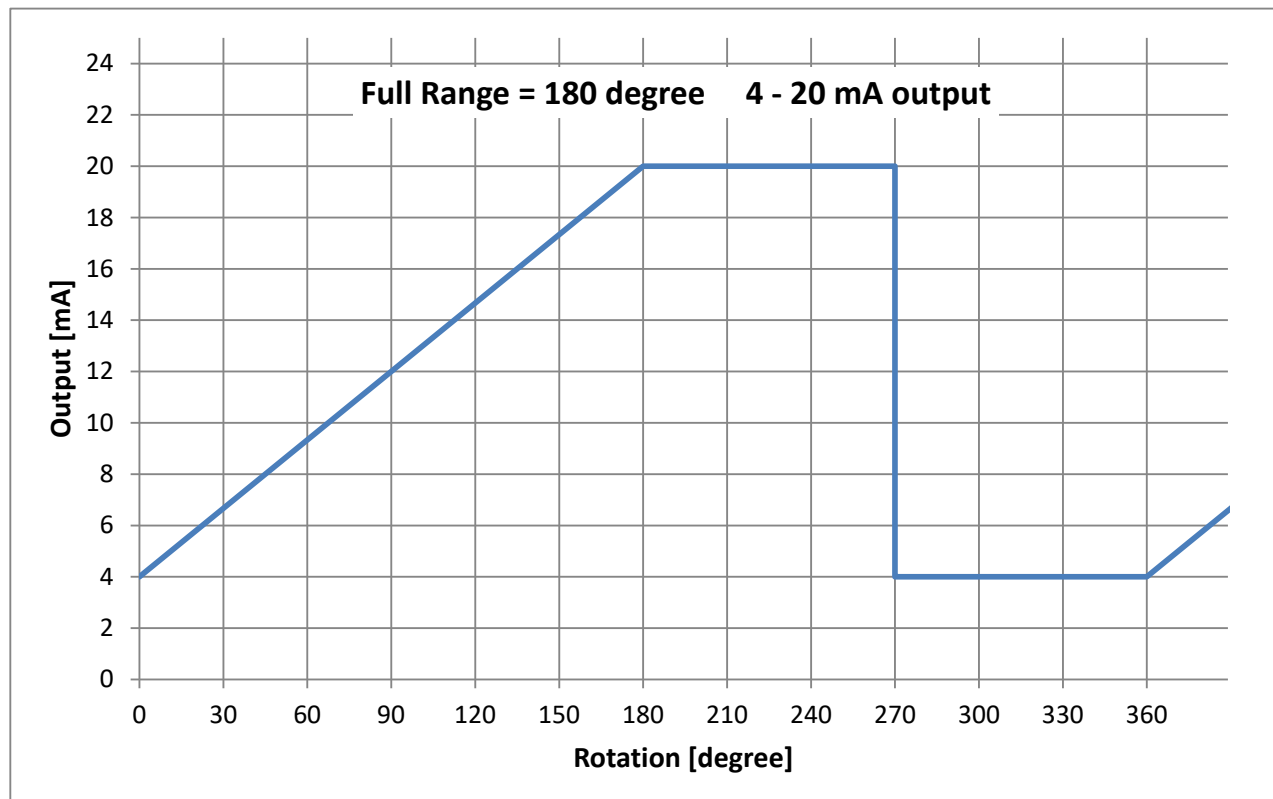
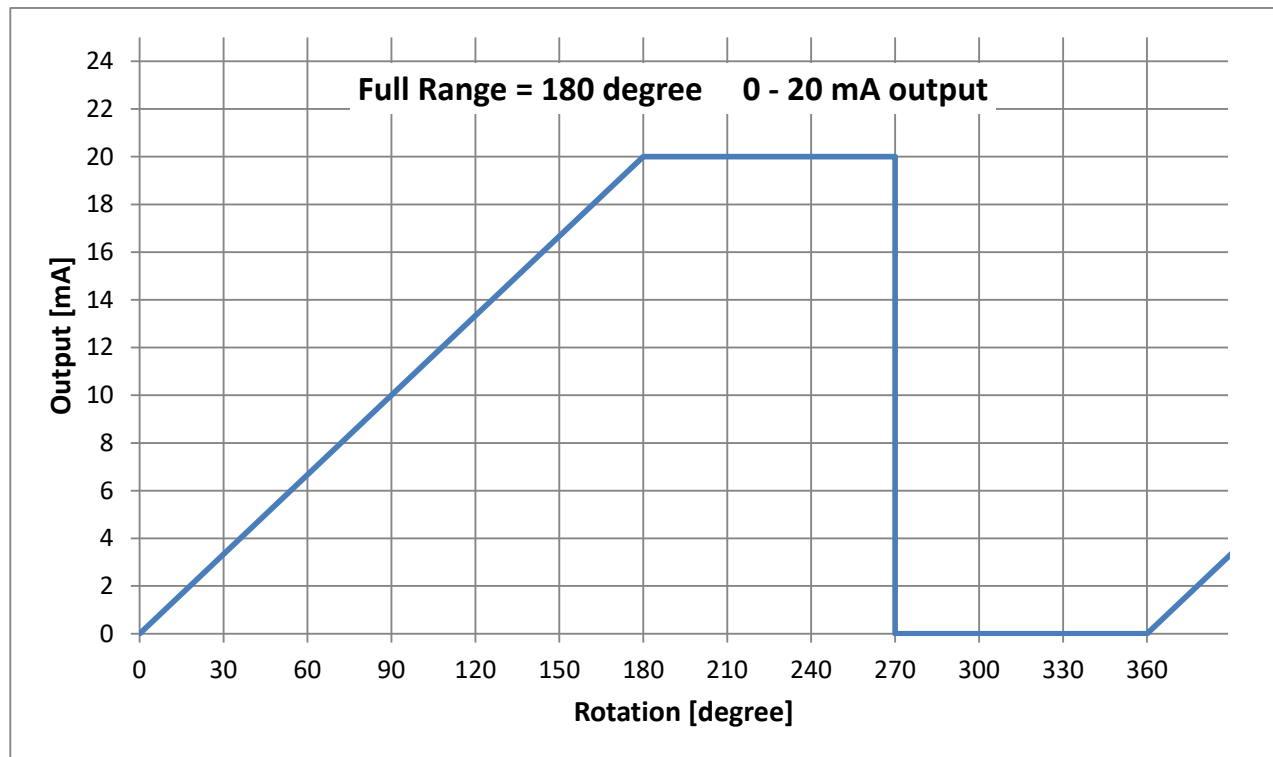
Output Terminations

Cable Connections		
Cable Colour	Name	Function
Red	Vsup	Positive Supply Voltage
Green	Iout	Current Output
Black	GND	Circuit Ground – Current Reference
White	Not Used *)	---

*) Can be left unconnected or cut off

Output Waveforms





Ordering Code

Example: SCA24AC – 360 – 12 – C4 – 04 – 14 – 64 – 01 – S – S1

Type

Range	Supply Voltage	Output	Shaft Dia.	Shaft Length	IP Rating	Cable Length	Cable Takeout	Spring Coupling
Full range over 360°	360				IP 64			
Full range over 180°	180							
Supply Voltage 12 – 18 Vdc	12						Side (radial)	S
Supply Voltage 20 - 28 Vdc	24						Back (axial)	B
Current 0 – 20mA		C0				Standard is 1 meter		01
Current 4 – 20mA		C4				Specify length		XX
			2,0 mm x 14 mm	02 - 14			2 points p/n 80139791	S1
			3,0 mm x 14 mm	03 - 14			2 points p/n 80137434	S2
			4,0 mm x 14 mm	04 - 14			No Spring Coupling	00
			4,0 mm x 9 mm	04 - 09				
			5,0 mm x 14 mm	05 - 14				
			6,0 mm x 14 mm	06 - 14				
			¼ inch x 14 mm	1/4 - 14				

Other options on request:
Please contact Scancon A/S