

## Type SCH24AC



- Absolute Hollow 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

### Electrical Specifications

<b>Encoder Type:</b>	Absolute Magnetic
<b>Resolution:</b>	2 <sup>10</sup> (1024) points per revolution
<b>Supply Voltage:</b>	12 Vdc min. to 18 Vdc max. or 20 Vdc min. to 28 Vdc max.
<b>Typical Current Consumption:</b>	40 mA @ 20mA output current
<b>Output Current:</b>	0 – 20 mA or 4 – 20 mA
<b>Accuracy:</b>	+/- 0,2% of full scale
<b>Output Format:</b>	Full range output over one revolution (360°) or over one half revolution (180°)
<b>Current Sense Resistor:</b>	Max. 400Ω – recommended 250Ω
<b>Output Update Rate:</b>	2610 updates/sec. ~ 383µsec. per update
<b>Electrical Protection:</b>	Reverse polarity and output short circuit protected
<b>Noise Immunity:</b>	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

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

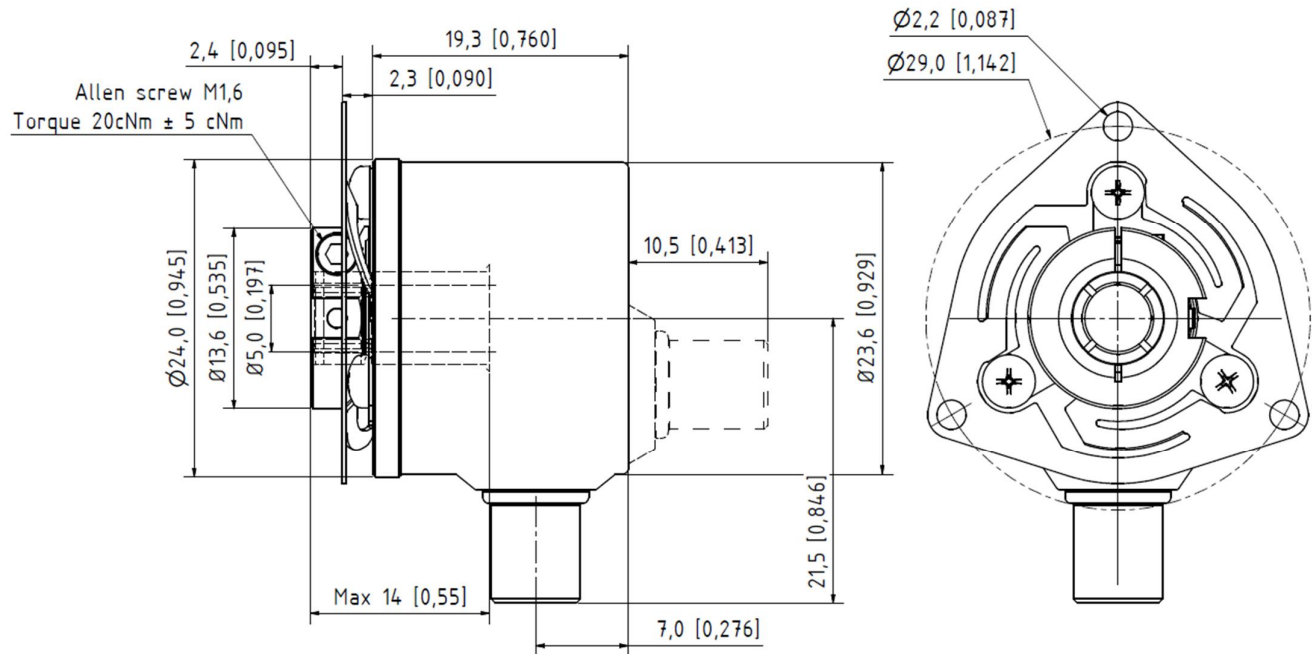
### Environmental Specifications

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

### Connection Options

<b>Cable:</b>	4 leads (0,14 mm <sup>2</sup> , 26 AWG) - Standard twisted pairs; shielded
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## 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

