





The SC-FREQCON is a frequency to analogue converter which can be configured using switches to perform any frequency to analogue converting function.

The range of frequency input available is 0–250kHz and any offset can be introduced on the input. The input can be averaged over a period between 0 and 45 seconds with a quickstep option available to respond quickly to sudden changes in input frequency.

Typical applications include the conversion and linearisation of the frequency output from a turbine meter, or the conversion of an optical sensor on rotating machinery to a 4-20mA output of r.p.m.

The operational status of the unit is indicated by the front panel LED. The unit can be powered by any supply from 12-36 Vdc and 12-32Vac.

Installation Data DIN Rail TS35 Mounting Orientation Any Screw Clamp with pressure plate Connections **Conductor Size** 0.5-4.0mm Insulation Stripping 12mm Approx 95g Weight Max tTerminal Torque 0.4Nm **Ordering Information** Part No.: SC-FREQCON

Made in the UK

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IS09001certified

cynergy3-sc-freqcon-v2



Frequency To Analogue Converter

- 0 250kHz User Configurable Input Stage
- Isolated 4-20mA or Voltage output
- Verv High Accuracy -
- Wide Range of Input Types
- Low Cost of Ownership
- Ultra-Compact, only 12.5mm Wide

General Specifications

The inputs types and ranges included below are our standard ones. Please contact our sales department for details on any application not specified below.

2-Wire Proximity **Volt Free Contact** Open Collector NPN or PNP **5V Logic TTL** 24V Logic Inductive / Magnetic Pickup

Outputs

DC Current (Source or Sink) and Voltage

0-20mA, 4-20mA, 0-10mA into 750_µ maximum.

0-1V, 0-10V, 1-5V into a minimum 100kи

Technical Specifications					
Parameter	Min	Тур	Max	Comments	
Supply Voltage	12V	24V	36V		
Supply Current (mA)		110	134	Max with 22V supply at 24mA	
Input Voltage Logic 0	-30V		+0.1V		
Input Voltage Logic 1	+0.1V		+30V		
Frequency Resolution			1.333µS		
Overall Accuracy		±0.01%	±0.06%	Input to Analogue Output	
Input Accuracy		±0.01%			
Temp Coefficient			±50ppm/⁰C		
Load Resistance Error			±5ppm/и	0 < RL < 750и (mA output)	
Time Constant (10-90%)		50mS	60mS		
Operating Ambient	0°C		55°C		
Relative Humidity	0%		90%		
Isolation Voltage	1kV				
Surge Voltage	2.5kV for 50µS		Transient o	of 10kV/µS	
Notes	Absolute maximum ratings indicate sustained limits beyond which damage to the device may occur.				

Device is protected against reverse polarity connection.

Accuracy figures based on an ambient temperature of 20°C.

(12.5)

The Time Constant is dependent on which processing options are been selected and the applied frequency.



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14	Connection Details
ę.	1. Power supply -ve
	2. Power supply +ve
	7. Input Ground
X	9. Frequency Input +ve
A.	10. +8V or +24V Transmitter supply
2	4. Output -ve
	5. Output +ve
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Sensata: SC-FREQCON