

| SC-ISOCON6

3 PORT ISOLATING SIGNAL CONVERTER



The SC-ISOCON3 Isolating Signal Converter can accept a wide range of inputs including 4-20mA, thermocouple, RTD and voltage signals. The units produce a high level DC output of either voltage or current.

Full 3 port isolation is standard as is an isolated transmitter supply which can be used to power any standard 2-wire 4-20mA transmitter.

The input type and range can be user selected using simple DIL switches inside the unit. All RTD and Thermocouple inputs can be fully linearised.

Non-interactive zero and span controls make adjustment of the unit quick and simple.

Other features include optional inversion of the input signal, an optional second analogue output (see SC-Dualcon data sheet) and an optional Relay alarm output.

The unit accepts a power supply of either 12-36 Vdc or 12-32Vac.

For specials such as custom linearisation, frequency input and maths functions etc please contact Sensata.

Features

- Universal input/output- user selectable
- mA, Voltage, Thermocouple & RTD inputs
- Dual Output unit available see Dualcon
- Selectable mA or Voltage output
- 12-32Vac or 12-36Vdc Supply
- Isolated Transmitter Supply
- Very High Accuracy, Low Cost
- Only 12.5mm Wide on DIN rail

Inputs

DC Current & Voltage

0-20mA, 4-20mA, 0-10mA into 15
0-1V, 0-10V, 1-5V into 1M

Min & Max Full Scale Ranges are:

DC Current	0 - 1mA	0 - 5A
Bipolar DC Current	±5mA	±10mA
DC Voltage	0 - 1V	0 - 300V*
Bipolar DC Voltage	±5V	±10V
2 Wire Pot	0 - 125Ω	0 - 1kΩ
3 Wire Pot	0 - 1kΩ	0 - 100kΩ

* Note: For input voltages greater than 60Vdc a Divider unit must be specified.

Thermocouples

Types E,J,K,N,R,S,T,B linearised or non-linearised

Ranges: Wide range of inputs

Cold junction compensation (can be turned off)

Upscale or downscale t/c burnout options.

Resistance Thermometers

2, 3 or 4 wire PT100 or PT1000, linearised or non-linearised

Ranges: Wide range of inputs

Upscale or downscale RTD burnout options.

For a dual output unit please see the SC-DUALCON data sheet.

Other input types are Strain gauge or load cell and Frequency, including PWM frequency inputs.

Outputs

DC Current and Voltage

0-20mA, 4-20mA, 0-10mA into 750Ω

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

Others available up to a maximum of:

Current: 0-20mA. Voltage: 0-10Vdc

SPECIFICATIONS

Technical

Parameter	Min	Typ	Max	Comments
Supply Voltage	12V	24V	36Vdc/32Vac	
Supply Current (mA)		45	85	For 24Vdc supply (260mA for 50mS on start-up)
Volt Drop (mA input)		0.3		At 20mA input
Input Impedance (Volt)		1MΩ	100MΩ	Dependent on range (Typ=10V)
Input Impedance (mA)		15Ω		Dependent on range (Typ=20mA)
Output Linearity Error		±0.01%	±0.05%	
Temp Coefficient			±50ppm/°C	
Load Resistance Error			±5ppm/Ω	$0 < R_L < 750\Omega$
Time Constant (10-90%)	25mS	60mS		Selectable fast/normal response
Operating Ambient	0°C		55°C	
Relative Humidity	0%		90%	
Isolation Voltage*	1kV			
Surge Voltage	2.5kV for 50μS		Transient 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 24Vdc supply, 4-20mA output with 250Ω load and an ambient 20°C. SC-ISOCON3 does NOT provide safety isolation when the input is connected to the mains.

Installation Data

Mounting	DIN Rail TS35
Orientation	Any
Connections	Screw Clamp with pressure plate
Conductor Size	0.5-4.0mm
Insulation Stripping	12mm
Weight	Approx 95g

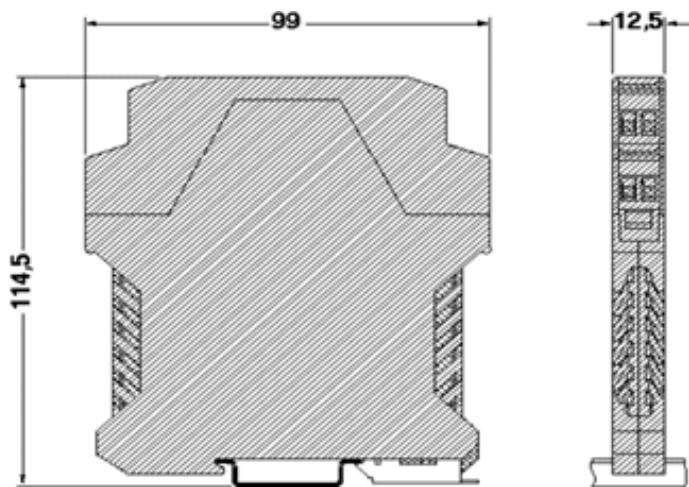
Connection Details

1. Power Input -ve		
2. Power Input +ve		
4. Process Input -ve	T/C -ve	RTD -ve
5. Process Input +ve	T/C +ve	RTD +ve
3. Trans supply +ve		RTD 4 th Wire
6.	T/C Shield	RTD 3 rd Wire
10. Output -ve		
12. Output +ve		



DIMENSIONS

All dimensions are in millimeters.





ORDERING OPTIONS

Example : SC-ISOCON6

Please supply
Part Number SC-ISOCON6

Made in the UK

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