SC-ISOCON6

3 Port Isolating Signal Converter



- ***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***

The new SC-ISOCON6 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 the sales office.

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

Technical Specifications

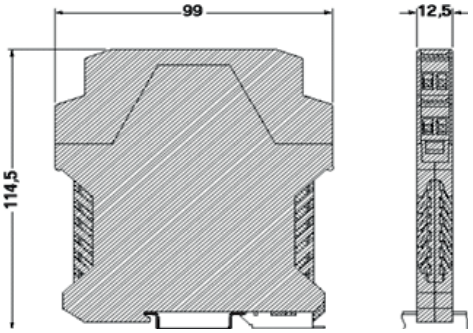
Parameter	Min	Typ	Max	Comments
Supply Voltage	12V	24V	36Vdc/32Vac	
Supply Current (mA)		45	85	For 24Vdc supply (260mA for 50ms on start-up)
Volt Drop (mA input)		0.3		At 20mA Input
Input Impedance (Volt)		1MΩ	100MΩ	Dependant on range (typ=10V)
Input Impedance (mA)		15Ω		Dependant on range (typ=20mA)
Output Linearity Error		±0.01%	±0.05%	
Temp Coefficient			±50ppm/ºC	
Load Resistance Error			±5ppm/Ω	0 < RL < 750Ω
Time Constant (10-90%)	25mS	60mS		Select fast/normal response
Operating Ambient	0ºC		55ºC	
Relative Humidity	0%		90%	
Isolation Voltage see note	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 20ºC.
SC-ISOCON3 does NOT provide safety isolation when the input is connected to the mains.

Connection Details

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



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

Ordering Information

Part No.: SC-ISOCON6

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ISO9001CERTIFIED

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Made in the UK

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