B&B ELECTRONICS

PRODUCT INFORMATION

Isolating Signal Converter ISOCON

The new ISOCON 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.

- Universal input/output- user selectable
- Full 3-Port Isolation
- Wide range AC or DC Supply
- Isolated Transmitter Supply
- Very High Accuracy, Low Cost
- Only 12.5mm Wide on DIN rail

Options and ordering codes

ISOCON - 6

90-264VAC supply	3
12-32VAC and 12-36VDC	6

Description

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 input signal an optional second analogue output (see Dualcon data sheet) and an optional Relay alarm output.

The unit is supplied with two power supply options either wide ranging ac or dc. The ac version operates from any supply from 90 to 264Vac and the dc version operates from 12 - 32VAC and 12 - 36VDC.

For specials such as custom linearisation etc. please contact the sales office.

Inputs

Standard ranges are shown below - contact Sales for others.

DC/AC Current & Voltage

Eg 0-20mA, 4-20mA, 0-10mA into 15Ω

0-1V, 0-10V, 1-5V into 1MΩ

Min & Max full scale ranges are:

DC Current	0 - 1mA	0 - 60mA
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 an IIR-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

Outputs

DC Current and Voltage

0-20mA, 4-20mA, 0-10mA into maximum 1kΩ

0-10V, 1-5V into a minimum 7kΩ

Others available up to a maximum of:

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

B&B electronics MANUFACTURING COMPANY

International Headquarters: 707 Dayton Road PO Box 1040 Ottawa, IL 61350 USA
815-433-5100 Fax 433-5104 *www.bb-elec.com orders@bb-elec.com support@bb-elec.com*

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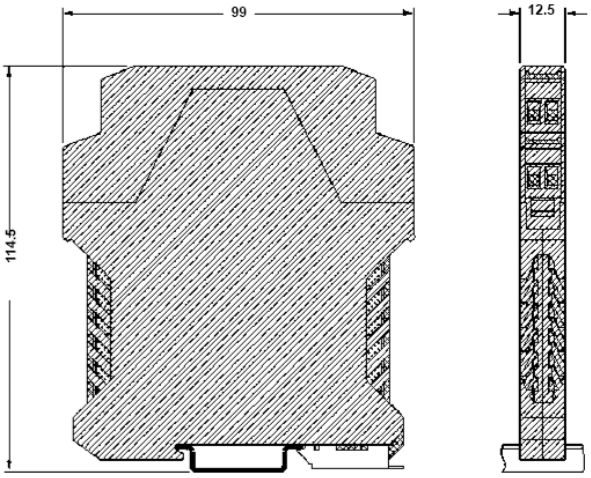
Isolating Signal Converter ISOCON continued

Specification

Parameter	Min	Typ	Max	Comments
Supply Voltage	12	24V	36VDC/32VAC	90 to 264 for ac input version
Supply Current (mA)		45	85	For 24VDC (260mA for 50ms on startup)
Input Impedance (Volt)		1MΩ		Dependent on range (Typ=10V)
Input Impedance (mA)		15Ω		Dependent on range (Typ=20mA)
Volt drop (mA input)		0.3		At 20mA input
Output Linearity Error		±0.01%	±0.05%	
Temp Coefficient			±50ppm/°C	
Time Constant (10-90%)	25ms (fast)	60ms (normal)		Selectable fast/normal response
Operating Ambient	0°C		55°C	
Relative Humidity	0%		90%	
Isolation Voltage see note 1	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 Accuracy figures based on 24VDC supply, 4-20mA output with 250 load and 20°C ambient. Device is protected against reverse polarity connection. 1/ ISOCON does not provide safety isolation when the input is connected to the mains.			

Dimensions and connections



Installation Data	
Mounting	DIN Rail TS35
Orientation	Any
Connections	Screw Clamp with pressure plate
Conductor size	0.5-4.0mm
Insulation	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 4th Wire
6.	T/C Shield	RTD 3rd Wire
10. Output -ve		
12. Output +ve		

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