



SC-ISOSLICE-3

4 RTD Input SC-ISOSLICE Unit

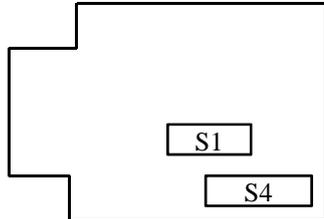
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Cynergy3 Components Ltd

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The SC-ISOSLICE-3 unit has 4 analogue inputs for 3 wire PT100 RTD sensors. The input ranges can be selected independently. This is achieved using the dipswitches shown below.



S1 selects the input range for inputs 1,2,3,4
 S4 selects the SC-ISOSLICE bus channel (2 to 128)

Input Range

Each input can be set up independently of the others using S1. Any range within the limits shown below can be selected. Any input range between -200 and 850°C can be read but the standard pre-calibrated ranges are as in the table below. For other non-standard ranges select the nearest range and re-calibrate as described below.

Displayed Range	0 to -100 °C	-100 to 100 °C	0 to 400 °C	0 to 800 °C
Input	S1	S1	S1	S1
1	-	2	1	1,2
2	-	4	3	3,4
3	-	6	5	5,6
4	-	8	7	7,8

Channel number

The channel number is selected using S4. The channel number must be between 2 and 128, using switches 2 to 8. If all switches are off, channel number is 1 (invalid):

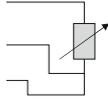
The channel number is a binary reading of switches 2 to 8, with switch 8 the lowest bit.

S4	2345678	
	0000000	channel 1 (invalid)
	0000001	channel 2
	0000010	channel 3
	0000011	channel 4
	0000100	channel 5
	11111111	channel 128

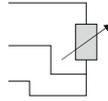
So switch 2 adds 64, 3 adds 32, 4 adds 16, 5 adds 8, 6 adds 4, 7 adds 2, 8 adds 1

Connections

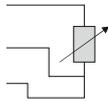
- 7. Input 4 +ve
- 8. Input 4 -ve
- 12. Input 4 3rd wire



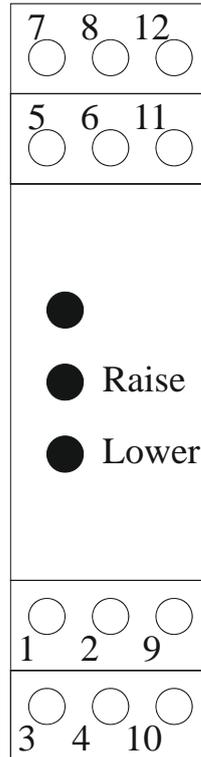
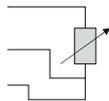
- 5. Input 3 +ve
- 6. Input 3 -ve
- 11. Input 3 3rd wire



- 1. Input 1 +ve
- 2. Input 1 -ve
- 9. Input 1 3rd wire



- 3. Input 2 +ve
- 4. Input 2 -ve
- 10. Input 2 3rd wire





Calibration

The SC-ISOSLICE-3 has an LED that shows which mode it is in.

Green	run
Red	learn span point
Amber	learn zero point

Calibration of a channel:

In run mode select the input to be calibrated
Calibrate the span point
Return to run mode
Calibrate the zero point
Return to run mode

Select the Input to be calibrated

Push the up or down button when the LED is green. The LED will flash red between 1 and 4 times, indicating the input that will be calibrated next.

Calibrate the Span Point

When the input has been chosen push and release both buttons.
The LED will go red.

Put in the span value (eg 247.04 ohms for 400°C) into the corresponding input, wait a few seconds for the input to be averaged to a stable level then push the up button to confirm that the input value is the value for the span at 100%.

Push and release both buttons to return to run mode. The LED will go off briefly (to indicate it has learnt and saved a new value) then change to green.

Calibrate the Zero Point

Push and release both buttons
The LED will change from green to amber.

Put in the zero value (eg 100 ohms for 0°C) into the corresponding input, wait a couple of seconds for the input to be averaged to a stable level then push the up button to confirm that the input value is the value for the zero at 0.00%.

Push and release both buttons, the LED will again go off briefly then change to green. Check the calibration has been successful by varying the input and confirming the value shown on the Z-Port or E100 display for the corresponding input and channel is as expected.