SC-ISOSLICE-4

4 Thermocouple Input SC-ISOSLICE Unit

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The SC-ISOSLICE-4 unit has 4 thermocouple inputs. It can be configured to accept a variety of different thermocouple types and temperature ranges As shown in the table below.
Switch 1 selects the thermocouple type for Inputs 1 & 2 and Switch 2 selects the thermocouple type for Inputs 3 & 4.
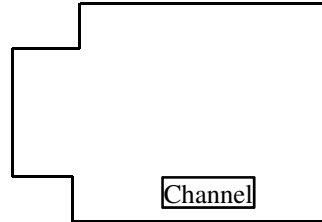
Input Type	Input Range	Switch 1 ON	Switch 2 ON
Type K	0-1350	1,5,7,8	1,5,7,8
Type J	0-1200	1,5,7,9	1,5,7,9
Type R	0-1400	1,2,5,8	1,2,5,8
Type S	0-1400	1,2,5,6,8	1,2,5,6,8
Type T	-200 – 400	1,2,3,6	1,2,3,6
Type E	0-1000	1,3,5,7	1,3,5,7
Type B	400-1800	2,4,5,6	2,4,5,6
Type N	0-1300	2,3,5,7	2,3,5,7

Channel Number

The channel number is set up using the 8 way dipswitch shown in the diagram below.
If all switches are off, channel number is 1 (invalid, indicated by the LED flashing red):
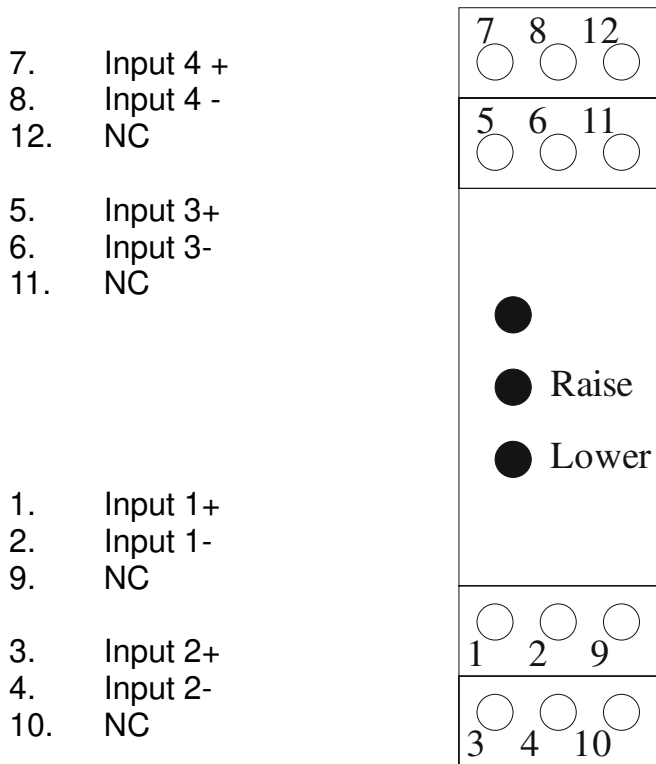
Address Switches	Action
8	add 1
7	add 2
6	add 4
5	add 8
4	add 16
3	add 32
2	add 64


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         Switches                Switches          1 = On, 0 = Off
Channel  2 3 4 5 6 7 8    Channel  2 3 4 5 6 7 8
1        0 0 0 0 0 0 0    9        0 0 0 1 0 0 0
2        0 0 0 0 0 0 1    10       0 0 0 1 0 0 1
3        0 0 0 0 0 1 0    11       0 0 0 1 0 1 0
4        0 0 0 0 0 1 1    12       0 0 0 1 0 1 1
5        0 0 0 0 1 0 0    13       0 0 0 1 1 0 0
6        0 0 0 0 1 0 1    14       0 0 0 1 1 0 1
7        0 0 0 0 1 1 0    15       0 0 0 1 1 1 0
8        0 0 0 0 1 1 1    16       0 0 0 1 1 1 1
```

Connections

7.   Input 4 +
8.   Input 4 -
12.   NC

5.   Input 3+
6.   Input 3-
11.   NC

1.   Input 1+
2.   Input 1-
9.   NC

3.   Input 2+
4.   Input 2-
10.   NC

Calibration

The SC-ISOSLICE-4 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 raise or lower 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 into the corresponding input, wait a few seconds for the input to be averaged to a stable level then push the raise button to confirm that the input value is the value for the span at 100%. The SC-ISOSLICE unit will check if it is using the most appropriate gain setting for the ADC. If it is, the span point has been learnt.

If the gain is not right, it will change the gain setting (green flash) then the red LED will flash. Push the raise button again to make it learn the input value with the new gain setting. There are 8 possible gain settings, so it may be necessary to repeat this process a few times. When the LED stays red after the button has been pressed, the span point has been learnt.

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 into the corresponding input, wait a couple of seconds for the input to be averaged to a stable level then push the raise 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 E-100 display for the corresponding input and channel is correct.