

ConLAB

RTR-2

CALIBRATION
INSTRUCTIONS

Calibration Tables

"Zero" Table

Tmin °C	SW1	SW2	SW3
-50... -15	0	0	0
-15... 15	1	0	0
15... 48	0	1	0
48... 82	1	1	0
82... 115	0	0	1
115... 147	1	0	1
147... 180	0	1	1
180... 215	1	1	1

"Span" Table

SPAN	SW4	SW5	SW6
30... 50	0	0	0
50... 75	0	1	0
75... 130	1	0	0
130... 185	1	0	1
185... 350	1	1	0
350... 850	1	1	1

Note: "1" represents the switch "ON" state.

Example

Range needed: Tmin = -50°C

Tmax = 100°C

The Span is 150°C

The switch setting will be: 000101



RTR-2 CALIBRATION INSTRUCTIONS

The RTR-2 is a multi-range Pt-100 transmitter.

Six DIP-Switches are located behind the red sliding cover for coarse ranging. The cover should gently slide inward.

Zero & Span potentiometers provide the final fine tuning.

Calibration

To calibrate the RTR-2, the limits must be defined. T min is the temperature at which the transmitter output current is 4mA.

T max is the temperature at which the transmitter output current is 20mA. The difference between T max and T min is defined as the "Span" of the transmitter.

An array of six DIP-Switches controls the transmitter coarse range. Set switches 1 to 3 control the Zero (T min), and set switches 4 to 6 control the Span.

- Connect a Pt-100 calibrator (DIN 43760 $\alpha = 0.00385$) between terminal #6 and #4 and short-circuit terminals #4 and #3
- Set the calibrator to T min
- Adjust the Zero potentiometer to obtain an output current of 4.000mA.

- Set the calibrator to T max
- Adjust the Span potentiometer to 20.000mA
- Repeat until satisfactory results are achieved

Note: The calibrator can be replaced by accurate resistor decade

Connection Diagram

