

Temperature-Transmitter MU 500L

Input for Pt100 or Pt1000 RTD-Sensors

Adjustment instructions

Measuring range configuration

- Select measuring range start value with Dip-Switches S1.1 - S1.4 according to table 1 (for Pt100) or table 3 (for Pt1000)
- Select measuring span (temperature rise) with Dip-Switches S2.1 - S2.8 according to table 2 (for Pt100) or table 4 (for Pt1000)

Adjustment

-Start value

Set Simulator to start value

Adjust output value with trim poti ► 0 ◀ to 0V ±5mV

The output current must be in range -0.03 ... +0.03mA.

-2V/4mA-point (link at terminals 5-6)

Adjust output voltage with trim poti ► 4mA ◀ to 2V ±5mV.

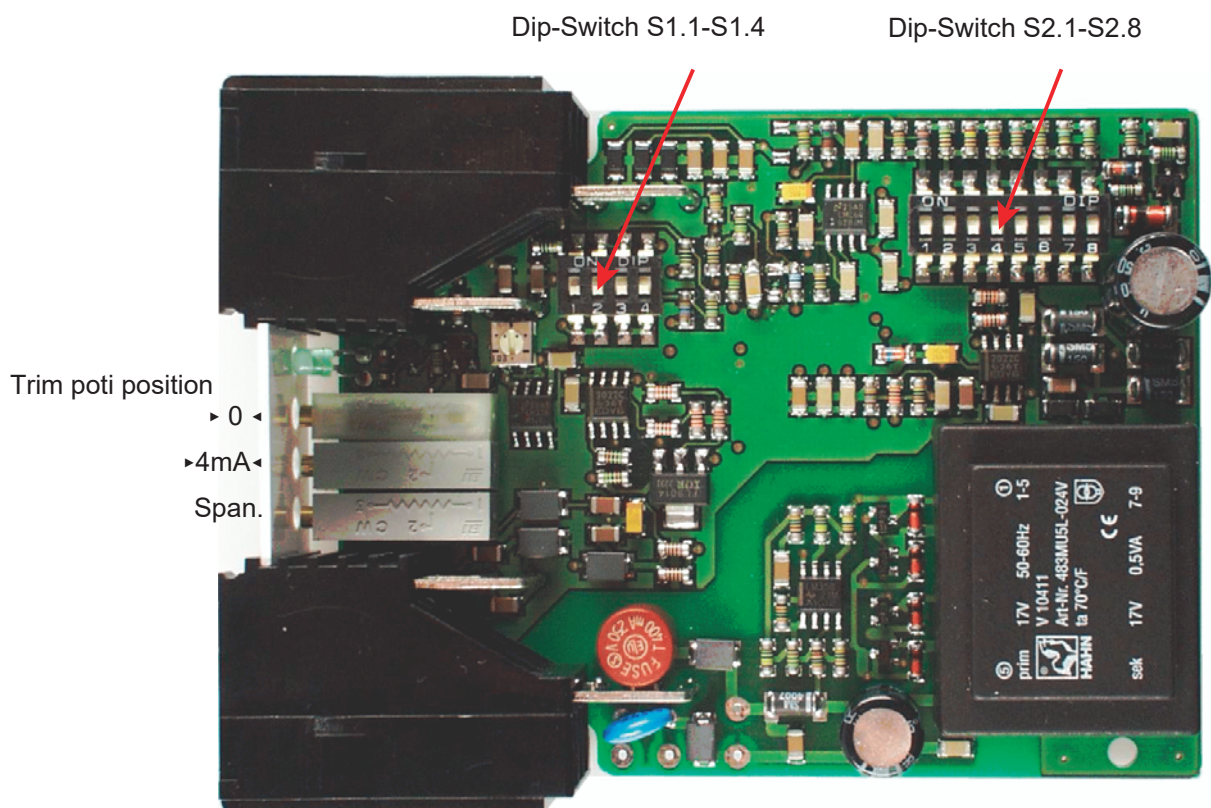
The output current must be in range 3.97 ... 4.03mA.

-End value

Set simulator to measuring range end value (= span - start value)

Adjust output voltage with trim poti **Span** to 10.000V ±5mV.

The output current must be in range 19.96 ... 20.04mA.



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Table 1, Pt100 start value

Start value [°C]	Dip-Switch position			
	S1.1	S1.2	S1.3	S1.4
-110 ... -100	OFF	OFF	OFF	OFF
-100 ... -95	ON	OFF	OFF	OFF
-95 ... -90	OFF	ON	OFF	OFF
-90 ... -82	ON	ON	OFF	OFF
-82 ... -74	OFF	OFF	ON	OFF
-74 ... -65	ON	OFF	ON	OFF
-65 ... -55	OFF	ON	ON	OFF
-55 ... -45	ON	ON	ON	OFF
-45 ... -34	OFF	OFF	OFF	ON
-34 ... -20	ON	OFF	OFF	ON
-20 ... -5	OFF	ON	OFF	ON
-5 ... +14	ON	ON	OFF	ON
+14 ... +32	OFF	OFF	ON	ON
+32 ... +57	ON	OFF	ON	ON
+57 ... +85	OFF	ON	ON	ON
+85 ... 120	ON	ON	ON	ON

Table 2, Pt100 measuring span (temperature rise)

Measuring span [°C]	Dip-Switch position							
	S2.1	S2.2	S2.3	S2.4	S2.5	S2.6	S2.7	S2.8
50.0 - 55.0	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
55.0 - 60.5	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
60.5 - 66.5	ON	ON	OFF	ON	OFF	ON	ON	ON
66.5 - 73.2	ON	ON	ON	OFF	OFF	OFF	ON	ON
73.2 - 80.5	ON	ON	ON	OFF	ON	OFF	OFF	ON
80.5 - 88.6	ON	ON	ON	OFF	ON	ON	ON	OFF
88.6 - 97.4	ON	ON	ON	ON	OFF	OFF	OFF	ON
97.4 - 107.1	ON	ON	ON	ON	OFF	ON	OFF	OFF
107.1 - 117.9	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON
117.9 - 129.6	OFF	OFF	ON	OFF	ON	ON	ON	ON
129.6 - 142.6	OFF	OFF	ON	ON	ON	OFF	ON	OFF
142.6 - 156.9	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON
156.9 - 172.6	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
172.6 - 189.9	OFF	ON	OFF	OFF	ON	ON	ON	ON
189.9 - 208.9	OFF	ON	OFF	ON	OFF	ON	OFF	ON
208.9 - 229.7	OFF	ON	OFF	ON	ON	OFF	ON	OFF
229.7 - 252.7	OFF	ON	OFF	ON	ON	ON	ON	OFF
252.7 - 278	OFF	ON	ON	OFF	OFF	OFF	ON	OFF
278 - 305.8	OFF	ON	ON	OFF	OFF	ON	OFF	ON
305.8 - 336.4	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
336.4 - 370	OFF	ON	ON	OFF	ON	OFF	ON	OFF
370 - 407	OFF	ON	ON	OFF	ON	ON	OFF	OFF
407 - 445	OFF	ON	ON	OFF	ON	ON	ON	OFF
445 - 492	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
492 - 542	OFF	ON	ON	ON	OFF	OFF	ON	OFF
542 - 596	OFF	ON	ON	ON	OFF	OFF	ON	ON
596 - 655	OFF	ON	ON	ON	OFF	ON	OFF	OFF

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Table 3, Pt1000 start value

Start value [°C]	Dip-Switch position			
	S1.1	S1.2	S1.3	S1.4
-58 ... -50	OFF	OFF	OFF	OFF
-50 ... -45	ON	OFF	OFF	OFF
-45 ... -38	OFF	ON	OFF	OFF
-38 ... -32	ON	ON	OFF	OFF
-32 ... -25	OFF	OFF	ON	OFF
-25 ... -18	ON	OFF	ON	OFF
-18 ... -10	OFF	ON	ON	OFF
-10 ... -2	ON	ON	ON	OFF
-2 ... +6	OFF	OFF	OFF	ON
+6 ... +15	ON	OFF	OFF	ON
+15 ... +26	OFF	ON	OFF	ON
+26 ... +37	ON	ON	OFF	ON
+37 ... +48	OFF	OFF	ON	ON
+48 ... +61	ON	OFF	ON	ON
+61 ... +75	OFF	ON	ON	ON
+75 ... +90	ON	ON	ON	ON

Table 4, Pt1000 measuring span (temperature rise)

Measuring span [°C]	Dip-Switch position							
	S2.1	S2.2	S2.3	S2.4	S2.5	S2.6	S2.7	S2.8
9.0 - 10.7	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
10.7 - 12.9	ON	OFF	ON	OFF	ON	OFF	ON	ON
12.9 - 15.6	ON	ON	OFF	ON	ON	ON	ON	OFF
15.6 - 18.9	ON	ON	ON	OFF	ON	OFF	ON	ON
18.9 - 22.9	ON	ON	ON	ON	OFF	ON	ON	OFF
22.9 - 27.7	ON	ON	ON	OFF	ON	ON	ON	OFF
27.7 - 33.5	OFF	OFF	ON	ON	ON	ON	ON	ON
33.5 - 40.5	OFF	ON	OFF	OFF	ON	ON	OFF	OFF
40.5 - 49.9	OFF	ON	OFF	ON	OFF	ON	ON	ON
49.9 - 60.4	OFF	ON	ON	OFF	OFF	OFF	OFF	ON
60.4 - 73.1	OFF	ON	ON	OFF	OFF	ON	ON	ON
73.1 - 88.5	OFF	ON	ON	OFF	ON	OFF	ON	ON
88.5 - 107.1	OFF	ON	ON	OFF	ON	ON	ON	ON
107.1 - 129.6	OFF	ON	ON	ON	OFF	OFF	ON	OFF
129.6 - 156.8	OFF	ON	ON	ON	OFF	OFF	ON	ON
156.8 - 189.7	OFF	ON	ON	ON	OFF	ON	ON	ON
189.7 - 230.0	OFF	ON	ON	ON	ON	OFF	OFF	OFF