

Temperature transmitter MU 500L

Input for RTD sensor, Pt100 or Pt1000

Features

- Free measuring range selection
- 2- or 3-wire-connection
- Output linearized for 0/4 ... 20 mA and 0/2 ... 10 V DC simultaneously
- Front side adjustment by 20-turn trimpot for start value (→0←), 4 mA/2 V (→4 mA←) and span
- Supply voltage isolated from input and output
- Supply voltage 230 V AC or 24 V DC
- Power-on LED
- 22,5 mm case for DIN rail mounting



General information

Temperature transmitter MU500L accept field signals of Pt100 or Pt1000 RTD sensors to the input which is filtered, isolated and converted into industry standard signals for process control systems. Special circuit design makes it possible, to produce any useful measurement ranges.

Short information

Measuring range

Zero point and span free selectable. Please note:

Sensor	Start value must be in range	Span must be in range
Pt100	-100 ... 100 °C	50 ... 600 °C
Pt1000	-50 ... 50 °C	10 ... 200 °C

Technical data

Power supply

Supply voltage	: 230 V AC $\pm 10\%$ or 24 V DC $\pm 20\%$
Frequency AC	: 47 ... 63 Hz
Power consumption	: <1.5 VA
Working temperature	: -10 ... +60 °C
Isolation voltage	: 500V \approx according to VDE 0110 group 2
Test voltage	: 6kV~
CE-conformity	: EN55022, EN60555, IEC61000-4-3/4/5/11/13

Input

Start value Pt100	: -100 °C ... +100 °C	(please note these values when ordering)
Span Pt100	: 50 ... 600 °C	
Start value Pt1000	: -50 °C ... +50 °C	
Span Pt1000	: 10 ... 200 °C	
Sensor current	: 0.6 mA (no self-heating)	
Cable-resistance	: automatic compensation, up to 10 Ω symmetric line resistance use 3-wire configuration	
Start value adjustment	: approx. ± 10 °C	
4mA /2V adjustment	: approx. ± 1 mA or ± 0.5 V	
Span adjustment	: approx. $\pm 10\%$	
Broken line	: output shows max. value	
Shorted line	: output shows min. value	

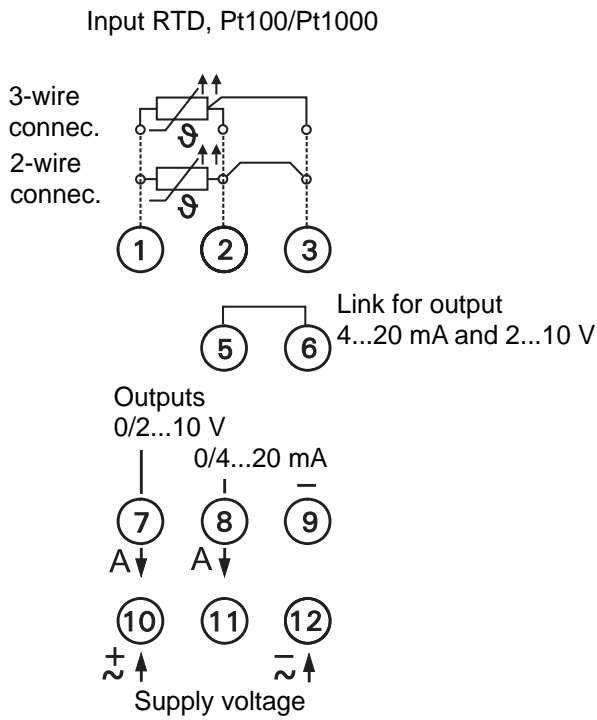
Output

Current output	: 0 ... 20 mA/4 ... 20 mA selectable by link
Load	: max. 500 Ω
Voltage output	: 0 ... 10 V DC/2 ... 10 V DC selectable by link
Load	: max. 10 mA, simultaneous to current output max. 1 mA
Accuracy	: $\leq 0.2\%$
Temperature coefficient	: $\leq 0.01\%/K$

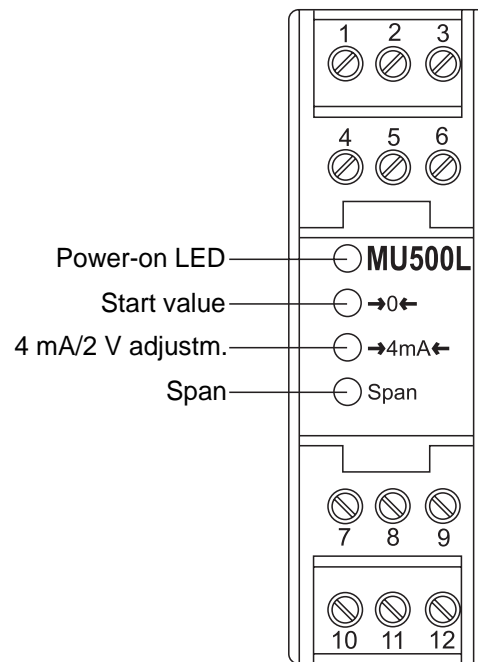
Case

Case	: standard case of polycarbonate 8020 UL94V-1
Weight	: approx. 140 g
Connection	: screw-terminals with pressure plate, max. 2,5 mm ² wire
Protection	: case IP30; terminals IP20, finger safe acc. German BGV A3

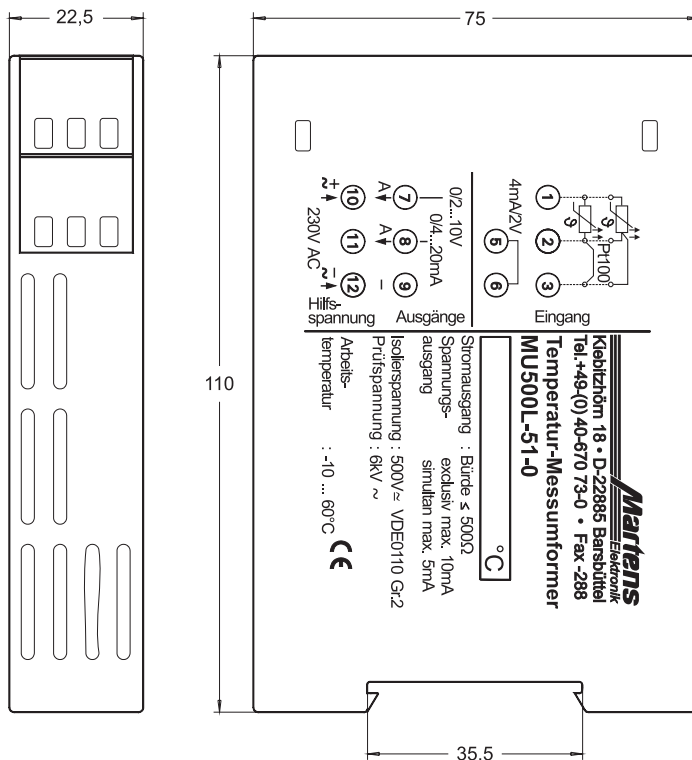
Connection diagram



Front panel controls

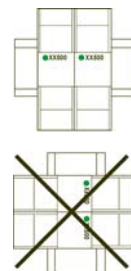


Dimensions



Caution!

Mounting of multiple units without distance is only permitted in horizontal orientation.



TS35 DIN rail mounting
acc. to DIN 46277 and DIN EN 50022

Ordering code

MU500L - 1. - 2. - 3.

1. Device type

51 Pt100
 53 Pt1000

Measuring range
 start value in range
 -100 ... 150 °C
 -50 ... 50 °C

Measuring span
 in range of
 50 ... 600 °C
 10 ... 200 °C

2. Supply voltage

0 230 V AC ±10 %
 5 24 V DC ±20 %

3. Measuring range

please state in clear text
 e.g. : -50 ... 100 °C

Stock

Sensor	Supply voltage	Range [°C]
Pt100 or Pt1000	230 V AC or 24 V DC	-50 ... 50
		0 ... 50
		0 ... 100
		0 ... 120
		0 ... 150
		0 ... 200
Pt100		0 ... 300
		0 ... 400