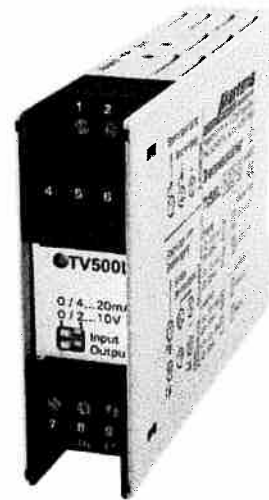


# Isolating signal converter TV 500L

Unipolar or bipolar in- and outputs

## Features

- Switch-selectable inputs 0/4...20mA and 0/2...10V or -20 ... 20mA and -10 ... 10V
- Switch-selectable outputs 0/4...20mA and 0/2...10V or -20 ... 20; and -10 ... 10V
- Increasing or decreasing output characteristic
- Supply voltage 230V AC or 24V DC
- Full 3-port isolation
- Power-on LED
- 22.5mm case for DIN rail mounting



## General information

Isolating signal converter TV500L can be used to isolate and convert unipolar or bipolar field signals into industry standard unipolar 0/4 ... 20mA and 0/2 ... 10V DC or bipolar signals for process control systems.

## Short information

Current output	current output is provided by a link between terminal 8 and 9 max. burden 500 $\Omega$ .
Multi-range	input and output can be configured by DIP switch at the front panel.

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## Technical data

### Power supply

Supply voltage	: 230V AC $\pm 10\%$ or 24V DC $\pm 15\%$
Frequency AC	: 47 ... 63 Hz
Power consumption	: < 3VA
Working temperature	: -10 ... +50 °C
Isolation voltage	: 500V according to VDE 0110 group 2 between input / output / supply
Test voltage	: 4 kV between input / output / supply
CE - conformity	: EN55022, IEC1000-4-3/4/5/11/13, EN60555

### Inputs

Current input	: -20 ... 20mA DC, or 0/4 ... 20mA DC available, $R_i = 43 \text{ Ohm}$ max. 100mA overload
Voltage input	: -10 ... 10V DC, or 0/2 ... 10V DC available, $R_i = 40\text{kOhm}$ , max. 100V overload
Initial value (0V/2V/4mA)	: adjustable $\pm 1.5\%$
Final value	: adjustable $\pm 5\%$

### Output

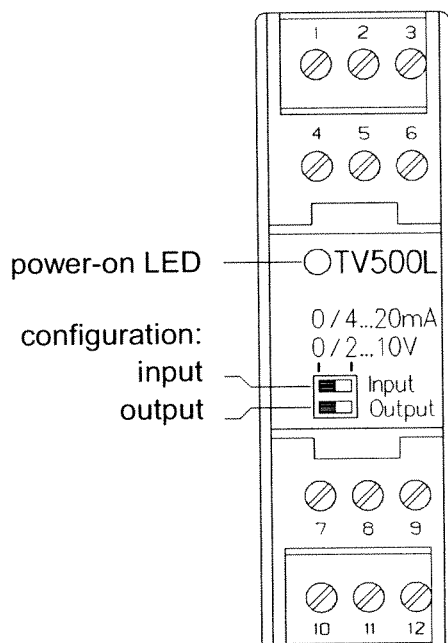
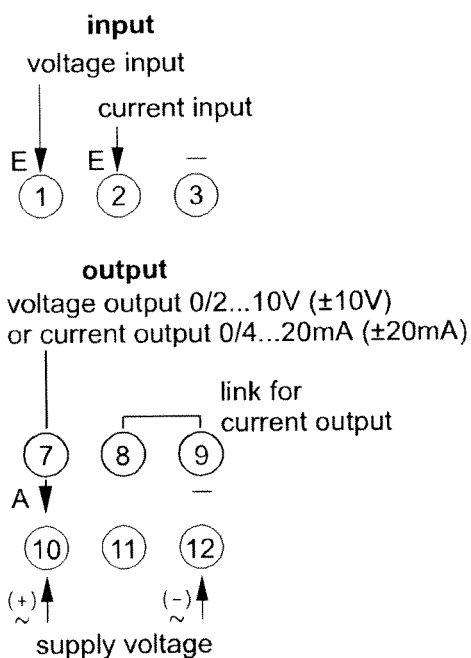
Switchable output voltage to current	: link between terminal 8 and 9
Current output	: 0 ... 20mA, 4 ... 20mA switch selectable, max. burden • 400Ohm or -20 ... 20 mA; max. burden • 150 Ohm
Voltage output	: 0 ... 10V, 2 ... 10V switch selectable, max. load 15mA or -10 ... 10V max. load 5mA

<b>Accuracy</b>	: < 0.3%
Temperature coefficient	: < 10ppm/K
Rise time ( $t_{90}$ )	: < 40 ms

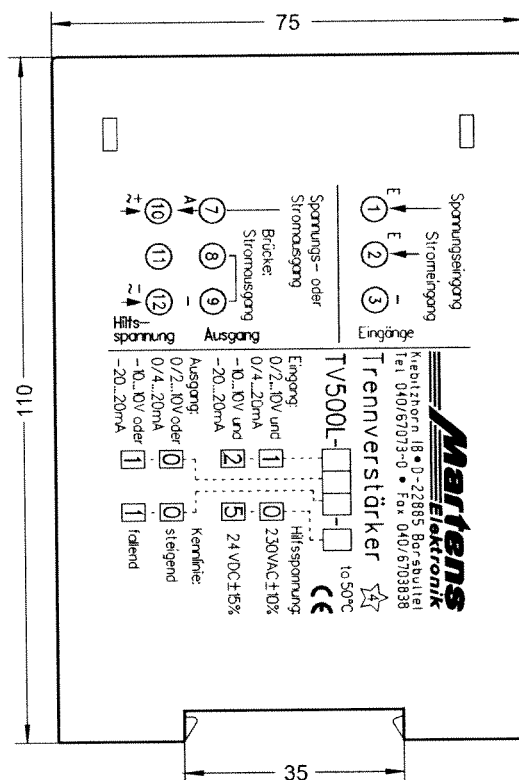
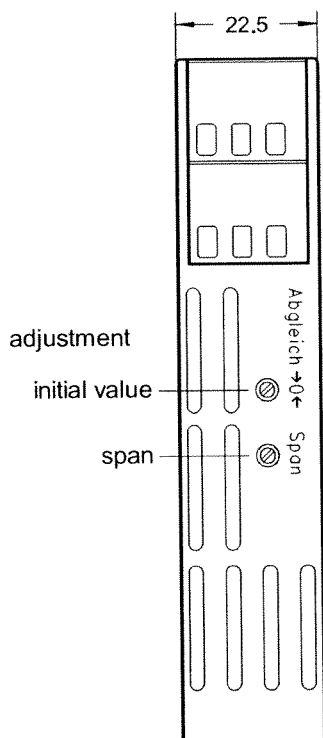
<b>Case</b>	: standard case of polycarbonate 8020 UL94V-1
weight	: ca. 200g
connections	: screw terminals with pressure plate, max. 2.5 mm <sup>2</sup> wire
protection	: case IP30, terminals IP20, finger safe acc. to German VBG 4

## Connection diagram

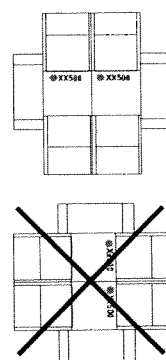
## Front panel controls



## Dimensions



**Caution!**  
Mounting of multiple units without distance is only permitted in vertical orientation!



TS 35 DIN rail mounting  
acc. to DIN 46277 and DIN EN 50022

## Order code

TV 500L	-	1. □	2. □	3. □	-	4. □
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1.

Input	
1 :	0/4 ... 20mA and 0/2 ... 10V
2 :	-20 ... 20mA and -10 ... 10V

2.

Output	
0 :	0/4 ... 20mA or 0/2 ... 10V
1 :	-20 ... 20mA or -10 ... 10V

3.

Output characteristic	
0 :	Increasing
1 :	Decreasing

4.

Supply voltage	
0 :	230V AC ±10%
1 :	24V DC ±15%

### Note!



Isolating signal coupler, including types with transmitter supply, are even available for installation in hazardous areas.