

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 ... 20mA 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
- UL-CSA-standard on request



General

Isolating signal converter TV500L can be used to isolate and convert unipolar or bipolar field signals into industry standard unipolar 0/4 ... 20 mA and 0/2 ... 10 V 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 Ω.
Multi-range	Input and output can be configured by DIP switch at the front panel (varies with version).

Technical data

Hilfsenergie

Supply voltage	: 230 V AC \pm 10 % or 24 V DC \pm 15 %
Frequency AC	: 47 ... 63 Hz
Power consumption	: < 3 VA (24 V DC 80 mA)
Operating temperature	: -10 ... 50 °C (14 ... 122°F)
Isolation voltage	: 250 V AC/DC according to EN 60664-1 pollution degree 2 and overvoltage category 2 between all areas. Safe isolation by reinforced insulation.
Test voltage	: 3 kV, 50 Hz, 1 min. between input / output / supply.
EMC	: EN 61326-1

Inputs

Current input	: -20 ... 20 mA or 0/4 ... 20 mA available, Ri = 43 Ω , max. 100 mA overload
Voltage input	: -10 ... 10 V or 0/2 ... 10 V available, Ri = 40 k Ω , max. 100 V overload
Initial value (0 V/2 V/4 mA)	: adjustable \pm 1,5 %
Final value	: adjustable \pm 1,5 %

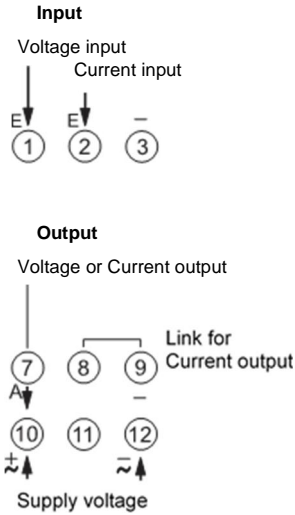
Output

Switchable output voltage to current	: link between terminal 8 and 9
Current output	: 0/4 ... 20 mA switch selectable, max. burden \leq 400 Ω ; -20 ... 20 mA, max. burden \leq 150 Ω
Voltage Output	: 0/2 ... 10 V switch selectable, max. load 15 mA or -10 ... 10 V, max. load 5 mA
Rise time (T ₉₀)	: < 40 ms
Accuracy	: 0,3 %
Temperature coefficient	: < 100 ppm/K

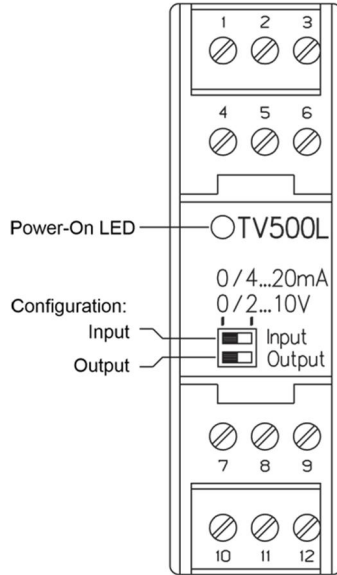
Case

Material	: polycarbonate 8020 UL94V-1
Weight	: ca. 200 g
Protection	: case IP30, terminals IP20, finger safe acc. to German BGV A3
Connection	: screw terminals with pressure plate max. 2.5 mm ² wire

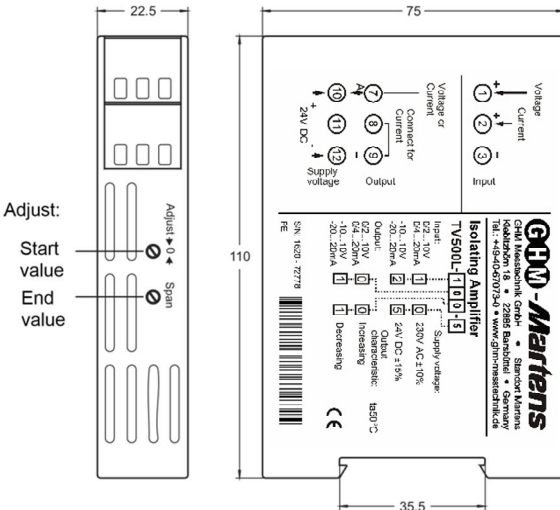
Connection diagram



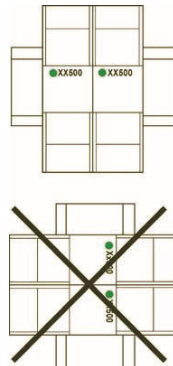
Front panel controls



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

TV500L -

1.	2.	3.

 -

4.

1. Inputs

Measuring range programmable from

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

2. Output

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

3. Output characteristic

- 0 increasing
- 1 decreasing

please state input- and output signal in plain text

4. Supply voltage

- 0 230 V AC \pm 10 %
- 5 24V DC \pm 15 %



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