

# Isolating signal converter **TV 500** ... with integr. transmitter supply **ST 500**

## Features

- Switch selectable inputs  
0/4 ... 20mA and 0/2 ... 10V
- Switch selectable outputs  
0/4 ... 20mA simultaneous 0/2 ... 10V
- Supply voltage 100 ... 265V AC  
or 10.8 ... 30V AC/DC
- Full 3-port isolation
- Integrated transmitter supply  
(only ST500)
- Power on LED
- 22.5mm case for DIN rail mounting



## General information

TV500 isolating signal converter can be used to isolate and convert field signals 0/4...20mA or 0/2...10V DC into industry standard signals for process control systems. The ST500 provides a fully floating isolated transmitter supply.

## Short information

Current output	max. burden 1 k $\Omega$
Multi-range	input and output can be configured by DIP-switch at the front panel.
Transmission frequency	measuring range 10: max. 18Hz ( $t_{90}<20\text{ms}$ ), measuring range 11: max. 1kHz ( $t_{90}<100\mu\text{s}$ ).

Ihr kompetenter Ansprechpartner / Your competent contact partner :

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## Technical data

### Power supply

Supply voltage	: 100...265V AC or 10.8...30V AC/DC
Frequency AC	: 47...63 Hz
Power consumption	: < 3.5VA
Working temperature	: -10...+60°C
Rated voltage	: 500V according to VDE 0110 Gr. 2 between input / output / supply
Test voltage	: 4 kV between input / output / supply
CE - conformity	: EN55022, IEC1000-4-4/5/11/13, EN60555-2

### Input

Current input	: 0...20mA, 4...20mA switch selectable, Ri = 25 Ohm max. 100mA overload
Voltage input	: 0...10V DC, 2...10V DC switch selectable, Ri approx. 40kOhm, max. 100V overload
Measuring range and 4mA/2V	: adjustable approx. +/-5%

### Output

Current output	: 0...20mA, 4...20mA switch selectable, burden max. 1kOhm
Voltage output	: 0...10V, 2...10V switch selectable, max. load 15 mA, short circuit protected(simultaneous to current output max. 5mA)
Accuracy	: ≤ 0.3%
Rise time (t <sub>90</sub> )	: measuring range 10: < 20ms, max. Frequenz 18Hz measuring range 11: <100µs, max. Frequenz 1kHz

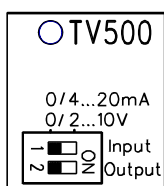
### Transmitter supply

: ca. 24V DC, Ri approx. 150Ohm, short circuit current approx. 35mA (ST500 only)
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### Case

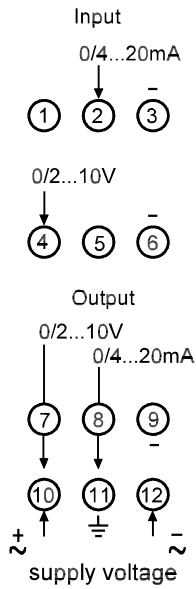
: standard case of polycarbonate 8020 UL94V-1	
Weight	: ca. 200g
Connection	: screw terminals with pressure plate, max. 2.5 mm <sup>2</sup> , wire
Protection	: case IP30, terminals IP20 finger safe acc. German VBG 4

## Front panel switches

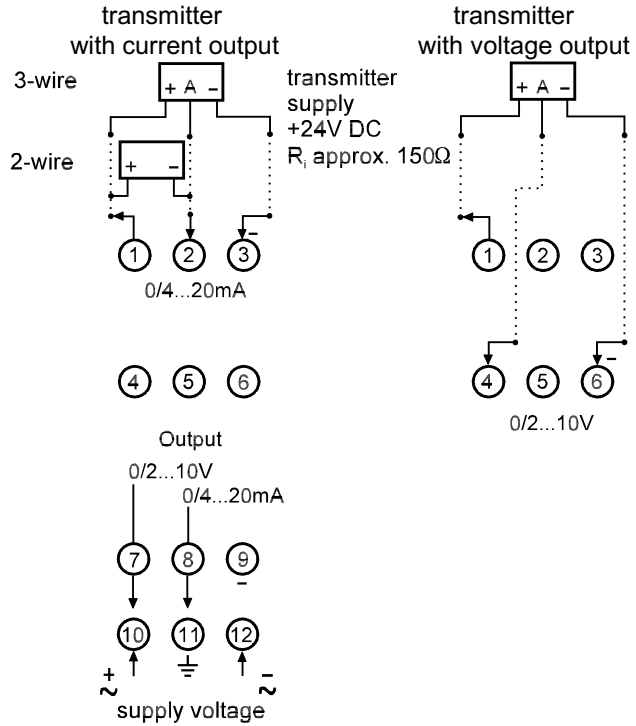


	0...20mA 0...10V	4...20mA 2...10V
Input	S1 off	S1 on
Output	S2 off	S2 on

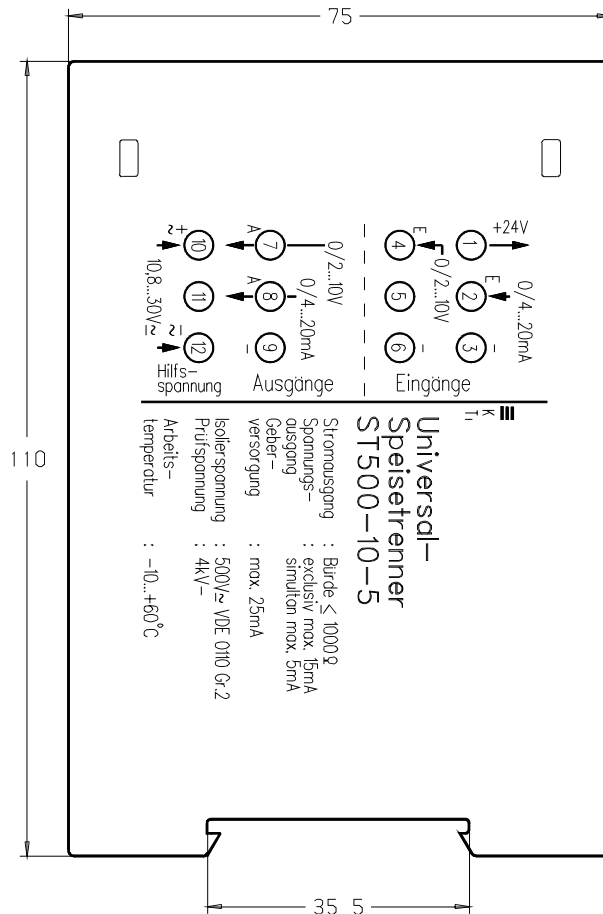
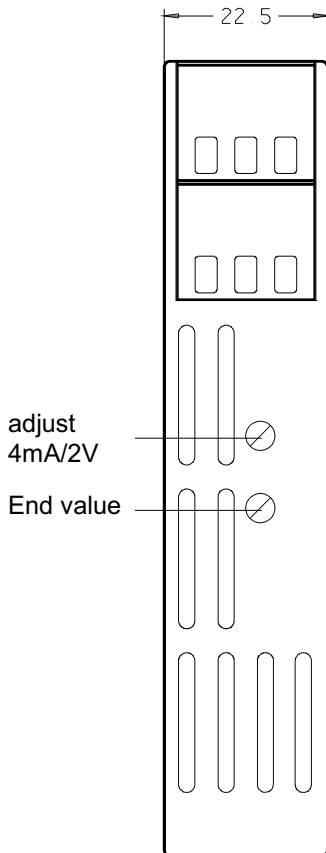
## Connection diagram TV500



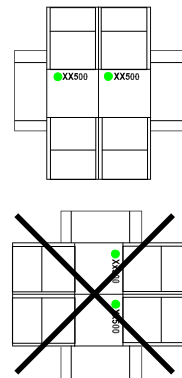
## ST500



## Dimensions



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



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

## Order code

1.    2.    3.  
□ - □ - □

### 1. Basic device

TV500    signal converter  
ST500    signal converter with transmitter supply.

### 2. Measuring range

10        inputs 0/4...20mA and 0/2...10V DC  
          outputs 0/4...20mA and 0/2...10V DC

11        like before, but rise time  $t_{90} < 100\mu\text{s}$

### 3. Supply voltage

0         100...265V AC  
5         10.8...30V AC/DC

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