

Isolating Converter TV 500P

1- and 2-channels loop powered

Merkmale

- Inputs
 - 0 ... 20 mA and 0 ... 10 V DC,
 - 4 ... 20 mA and 2 ... 10 V DC,
 - 20 ... 20 mA and -10 ... 10 V DC
- Outputs 4 ... 20 mA , 2-wire connection
- Increasing or decreasing output characteristic
- End value ± 5 % adjustable with front side trimpot
- Loop voltage 14 ... 30 V DC
- Full 2-port isolation
- Power-on-LED for each channel
- 22.5mm standard case for DIN rail TH35



General

Loop powered signal converter series TV500P are highly compact devices to isolate and adapt standard signals to active inputs of SPC- and DDC-systems. The device is loop powered via the 4-20 mA output (please see wiring example page 2).

If several isolating converter are needed, the use of the TV500P with 2 channels is particularly economical and cost saving.

Technische Daten

Power supply

Loop voltage : 14 ... 30 V DC
 Operating temperature : -10 ... 50°C
 Rated voltage : 250 V AC, pollution degree 2, overvoltage cat. II
 Test voltage : 3 kV DC, between input/output

Inputs

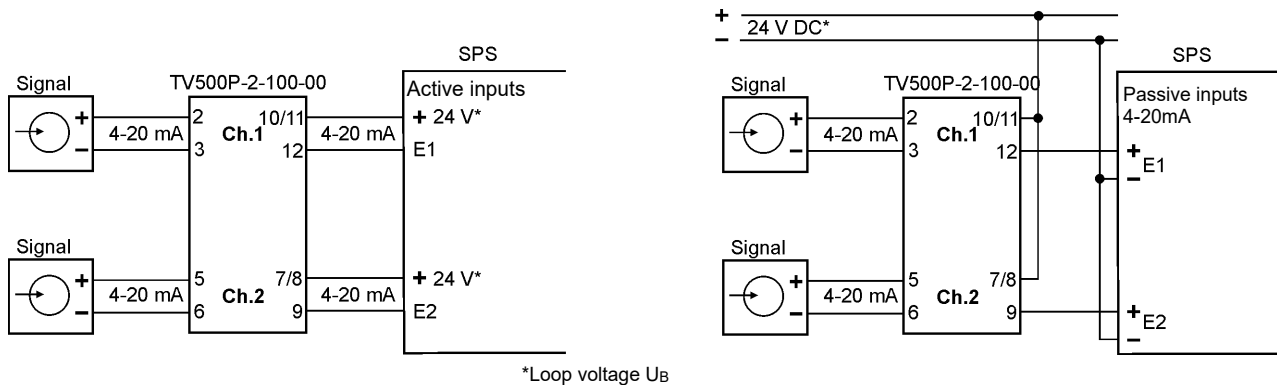
Current input : 0 ... 20 mA, 4 ... 20 mA or -20 ... 20 mA
 $R_i = 43 \Omega$, overload max. 100mA
 Voltage input : 0 ... 10 V, 2 ... 10 V or -10 ... 10 V
 $R_i = 160 \text{ k}\Omega$, overload max. 100 V
 End value 20 mA : adjustable in the range $\pm 5 \%$
 Accuracy
 - Standard : < 0.2 % (< 0.1 % factory calibration for one range available)
 - Linearity : < 0.05 %
 - Temperature : < 0.01

Output

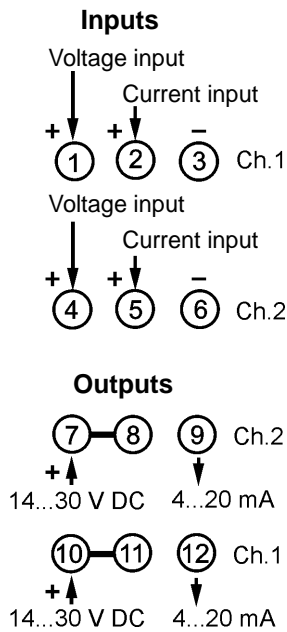
Current output : 4 ... 20 mA , $R_{\text{max}} = \frac{U_B - 14 \text{ V}}{20 \text{ mA}}$
 Burden error : < 0.05 %
 Rise time t_{90} : < 70 ms
Note! : output switches to 22 mA, if the input signal fall below -34 % or exceeds +34 % of the input signal.

Case : standard case of polycarbonate 8020 UL94V-1
 Weight : approx. 200 g
 Protection : case IP30, terminals IP20 (acc. to German BGV A3)
 Connection : screw terminals with pressure plate, max. 2.5 mm²

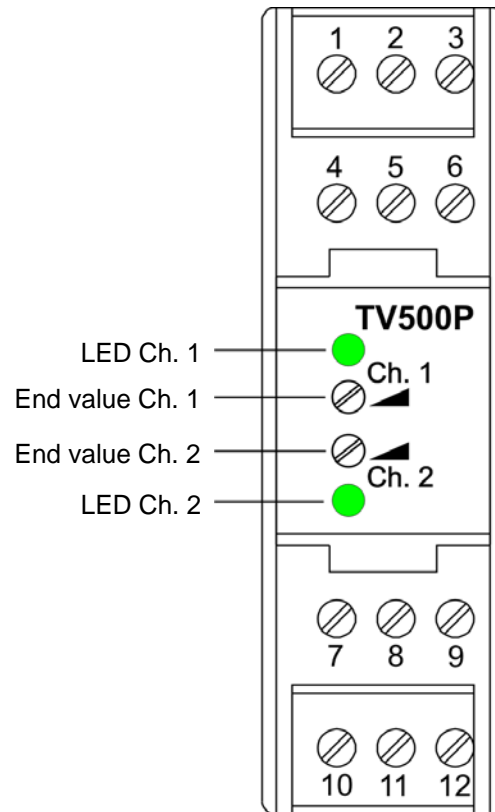
Wiring examples



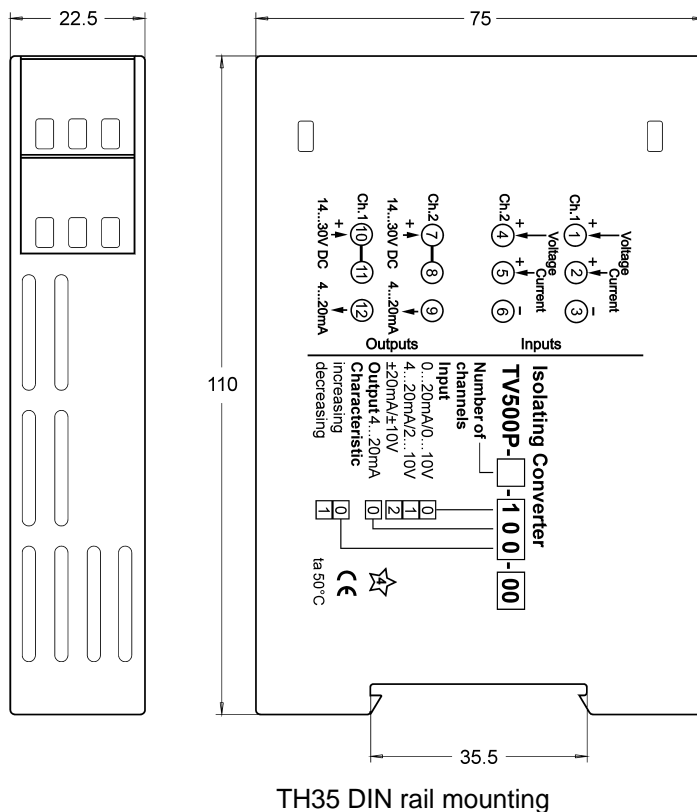
Connection diagram



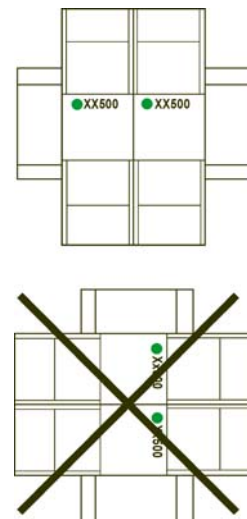
Front panel controls



Dimensions



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



Ordering Code

TV500P - ^{1.} - ^{2.} ^{3.} ^{4.} - ^{5.}

1. Number of channels

1
2

2. Inputs

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

3. Outputs

0 4 ... 20 mA passive

4. Output characteristic

0 increasing
1 decreasing (inverted)

5. Options

00 without option