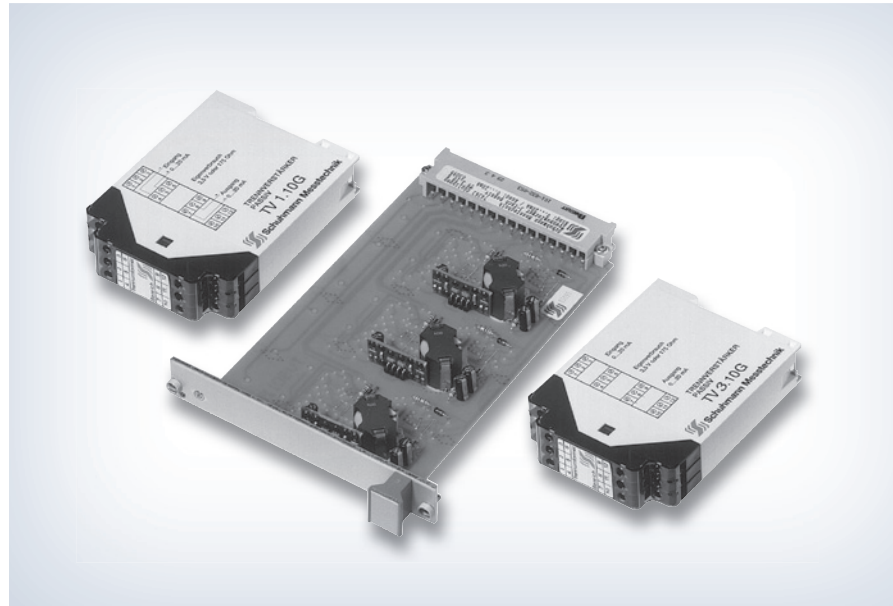


FEATURES

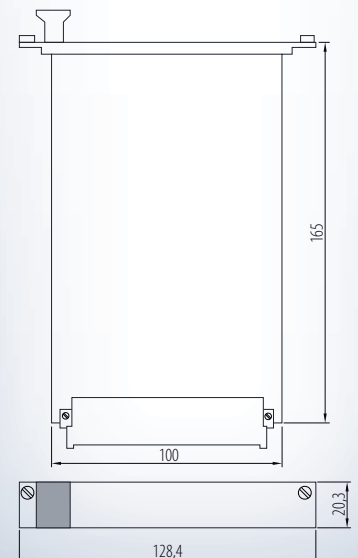
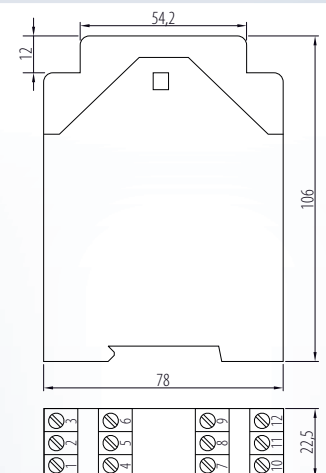
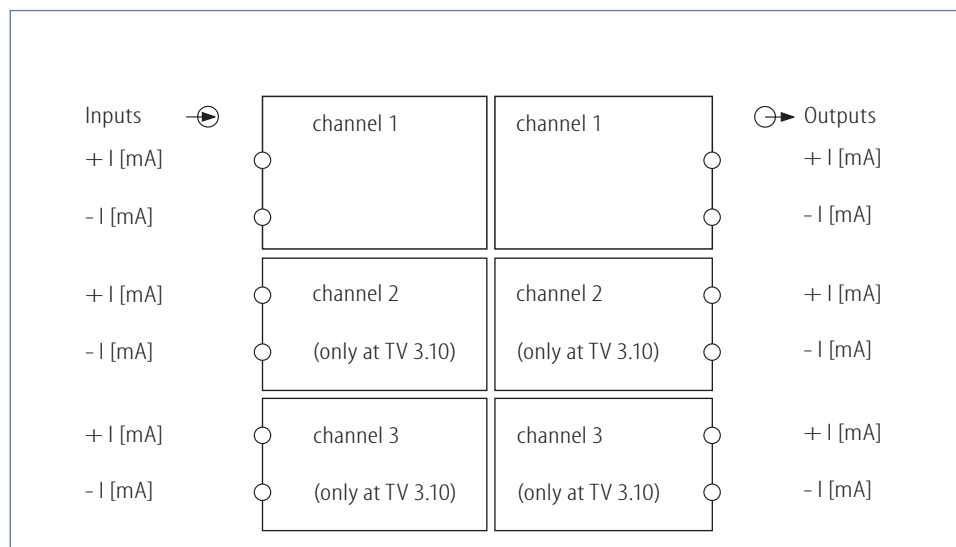
- **Input:**
Current 0(4)...20 mA
1x at TV 1.10
3x at TV 3.10
- **Output:**
Current 0(4)...20 mA
1x at TV 1.10
3x at TV 3.10
- **No auxiliary power required**
- **Galvanic 2-way isolation of 500 V**



FUNCTION

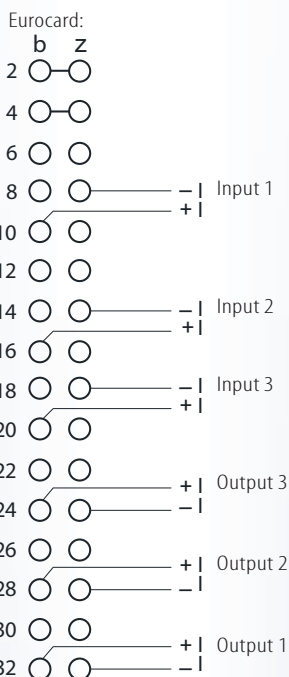
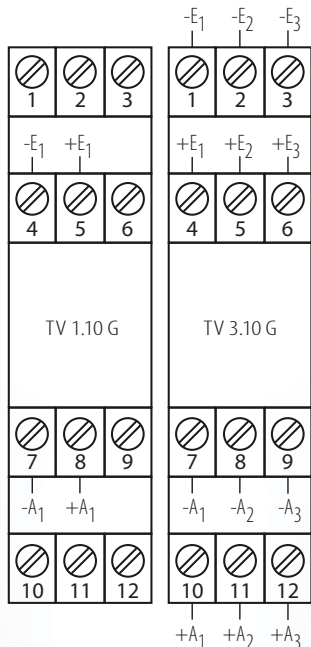
The TV 1.10 and TV 3.10 are used for the galvanic isolation of DC circuits. Input and out have a transmission ratio of 1:1. The low power consumption is removed from the measuring signal. As far as load is concerned you have to consider that the internal resistance of the transmitter must be added to the input resistance of the final device and should not exceed the total load of the measuring transducer

Disturbances by coupling of different signal circuits as well as earth- or mass potential differences can easily be avoided by these units or eliminated afterwards. The integrated protective switching with suppressor diode protects the secondary circuit from peaks and transient excess voltage. **Attention: with output open the primary loop is interrupted.**



TV 1.10 TV 3.10

Connection diagram:



Input:

I: load-independent DC current: 0(4)...20 mA,
Input resistance: $R_i = R_A + 175 \Omega$
connection: see connection diagram

Transmission ratio 1:1.

Output:

I: load-independent DC current: 0(4)...20 mA
Maximum load: (input voltage - 3,5 V)
0,02 A
Output current: max. 21 mA
connection: see connection diagram

Environmental conditions:

Storage temperature: $-40...+70^\circ\text{C}$
Operating temperature: $0...55^\circ\text{C}$
Isolation voltage:
500 V eff. 1 sec. input/ output

Characteristics of transmission:

Transmission error: $< 0,15\%$
Linearity error: $< 0,1\%$
Temperature error: $< 0,05\%$ / at $0...55^\circ\text{C}$
Load influence I:
 $< 0,16\%$
per 100Ω load
Setting time: < 500 msec.

Directive:

EMC Directive: 2004/108/EC*
Low Voltage Directive: 2006/95/EC
*minimum deviations possible during
HF-radiation influence

Mounting details:

Housing for top hat rail
Type of protection: IP 20
Mounting rail fixed according to
EN 50022-35 x 6,2 mm
Width: 22,5 mm
Weight: 120 g (TV 1.10 G)
180 g (TV 3.10 G)
Material: Noryl V0 150/ ABS
Flammability class: ISO R75A 147°C/ 90°C
Approval: CE
Connection: screw clamps
 $\leq 2 \times 2,5 \text{ mm}^2$

For safety reasons we recommend to mount the housing for top hat rail with a distance of approx. 5 mm to each other.

Eurocard 4 TE

Front panel: anodized aluminium,
3HE/ 4TE (128,4/ 20,3 mm)
Connection: connector, 32 pole, Type F
according to DIN 41612
Weight: 160 g (TV 3.10 E)

Ordering information:

Type: **TV 1.10 G** 1-channel housing
TV 3.10 G 3-channel housing
TV 3.10 E 3-channel Eurocard

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21.04.2011