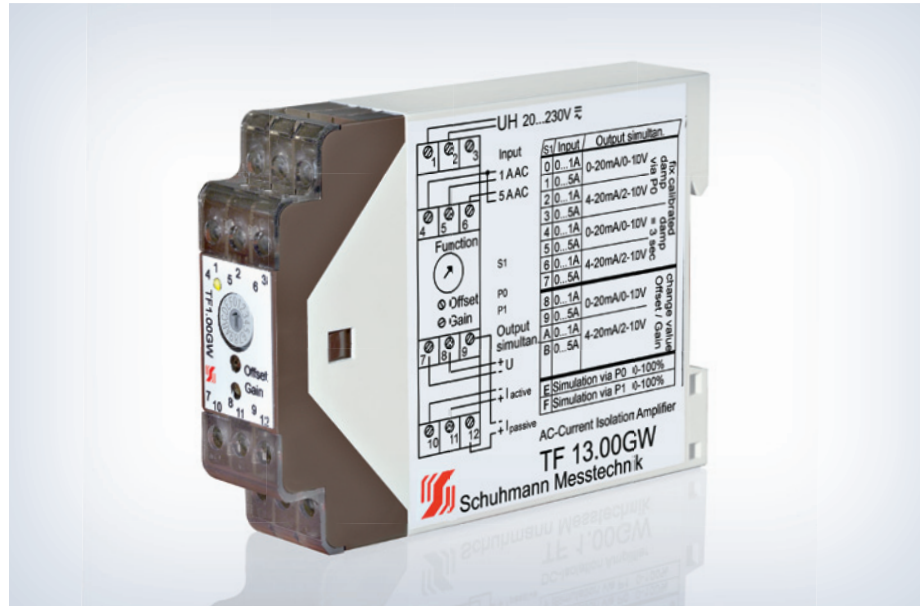


Adjustable AC current Isolating Amplifier

TF 13.00 GW

FEATURES

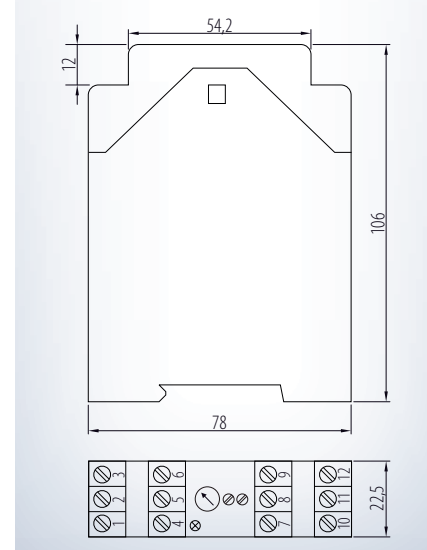
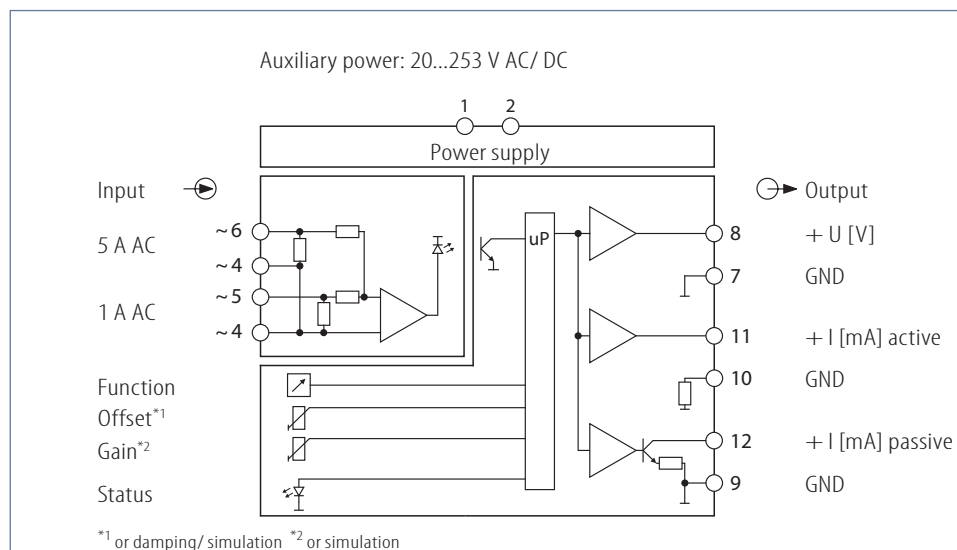
- 2 inputs for AC current:
 - 1 A AC, 50/ 60 Hz
 - 5 A AC, 50/ 60 Hz
- Outputs simultaneous:
 - Current 0(4)...20 mA active or loop-powered
 - Voltage 0(2)...10 V
- Function, switchable:
 - fixed calibration or
 - adjustable by trimmer or
 - simulation mode for outputs
- Galvanic 3-way isolation of 2,5 kV
- Low internal consumption



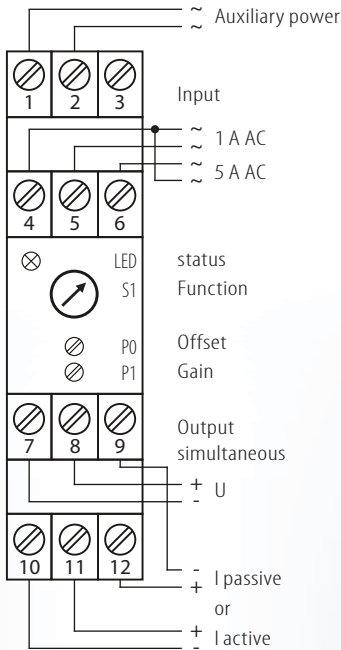
FUNCTION

Amplifiers are used for the galvanic isolation or conversion of analog signals. This guarantees a safe decoupling between sensor and evaluation circuit and any influence of other sensor circuit among each other is absolutely impossible. This Amplifier is equipped with standard **AC current inputs** as well as current and voltage outputs.

The TF 13.00 GW can be switched to different characteristics of transmission by turn-switch. Fixed calibrated measuring ranges for input and output are stored in switch setting 0...7. In position 8...D the transmission ranges can be adjusted by zero point and range trimmer. A damping of 3 seconds is selectable in addition. Position E and F are used for simulation during initial operation, here a fixed output value can be generated by zero point and range trimmer, without input signal.



TF 13.00 GW



Input:

I: AC current:	1 A AC	max. 2 A AC/ 5 sec. 50/ 60 Hz
connection:	terminal 4 ~, 5 ~	
U: AC current:	5 A AC	max. 10 A AC/ 5 sec. 50/ 60 Hz
connection:	terminal 4 ~, 6 ~	

Output:

I: load-independent DC current:	0(4)...20 mA	permissible load max. 500 Ω
connection:	terminal 10 -, 11 +	
or:		
loop-powered DC current:	0(4)...20 mA	max. permissible voltage 30 V
connection:	terminal 9 -, 12 +	
U: load-independent DC voltage:	0(2)...10 V	permissible load ≥ 2 kΩ
connection:	terminal 7 -, 8 +	

The maximum limits for current- and voltage output are fixed at 22 mA respectively 11 V.

Adjustment:

The characteristics of transmission are adjustable by turn-switch.

S1	Input	Output simultan.	damping	Position turn-switch S1	
0	0-1 A AC	0-20 mA/ 0-10 V	0,5...10 s over P0 adjustable 3 s	0...7	Inputs and outputs are fixed calibrated, the trimmer for zero point and range are here without function.
1	0-5 A AC	4-20 mA/ 2-10 V			
2	0-1 A AC	0-20 mA/ 0-10 V			
3	0-5 A AC	4-20 mA/ 2-10 V			
4	0-1 A AC	0-20 mA/ 0-10 V			
5	0-5 A AC	4-20 mA/ 2-10 V			
6	0-1 A AC	0-20 mA/ 0-10 V			
7	0-5 A AC	4-20 mA/ 2-10 V	3 s	8...D	Inputs and outputs are not exactly calibrated. Adjustment: zero point trimmer P0 (> ± 15%) gain trimmer P1 (> ± 15%)
8	0-1 A AC	0-20 mA/ 0-10 V			
9	0-5 A AC	4-20 mA/ 2-10 V			
A	0-1 A AC	0-20 mA/ 0-10 V			
B	0-5 A AC	4-20 mA/ 2-10 V	3 s		
C	like „8“	0-20 mA/ 0-10 V			
D	like „9“	0-20 mA/ 0-10 V			
E	Simulation via P0 0-100%			E	Simulation with trimmer P0: 0...100% output
F	Simulation via P1 0-100%			F	Simulation with trimmer P1: 0...100% output

Display:

LED status:	green, active	input signals are in standard range, device ready for use
	green, flashing	input signal out of the acceptable range or exceeding of measuring range or simulation mode

Environmental conditions:

Storage temperature:	-40...+70 °C
Operating temperature:	0...55 °C
Isolation voltage:	2,5 kV eff. 1 sec. input-output 2,5 kV eff. 1 sec. auxiliary voltage

Auxiliary power:

Wide range:	20...253 V AC/ DC approx. 6...40 mA
Influence of auxiliary power:	< 0,1 %

Characteristics of transmission:

Transmission error:	< 1 %
Resolution:	13 bit
Linearity error:	< 1 %
Temperature error:	< 200 ppm/ K
Load influence I:	< 50 ppm of final value
Load influence U:	< 0,2 % at 2 kΩ load
damping:	0,5...10 sec.

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 40 housing IP 10 clamps
Mounting rail fixed according to	EN 50022-35 x 6,2 mm
Width:	22,5 mm
Weight:	150 g
Material:	Noryl V0 150/ ABS
Flammability class:	ISO R75A 147°C/ 90°C
Approval:	CE
Connection:	screw clamps ≤ 2 x 2,5 mm ²

Please check switch position before initial operation!

Ordering information:

Type: **TF 13.00 GW** wide range

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