



Measuring transducer for direct current and direct voltage for installations up to 1000 V (CAT III)

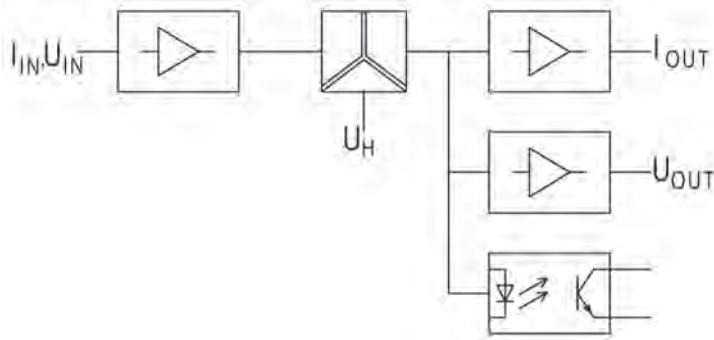
Type:  
MA-GT.1  
MV-GT.1

## Application

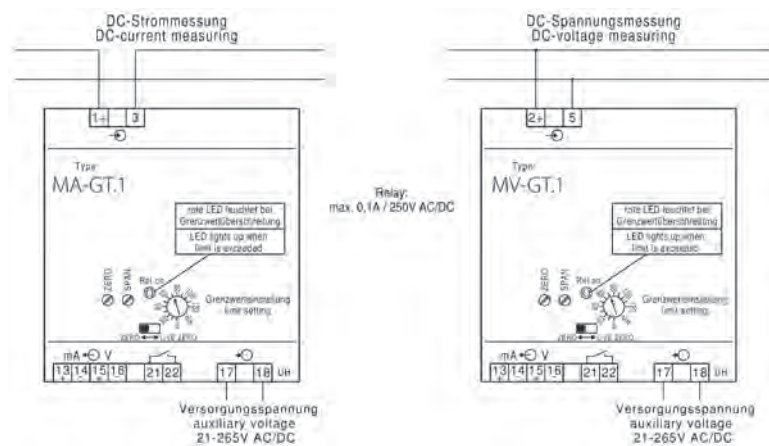
The measuring transducers MA-GT.1 and MV-GT.1 are used for the transformation and isolation of a direct current or a direct voltage into an impressed direct current and direct voltage signal. An integrated limit monitoring serves for monitoring the input signal.

## Function

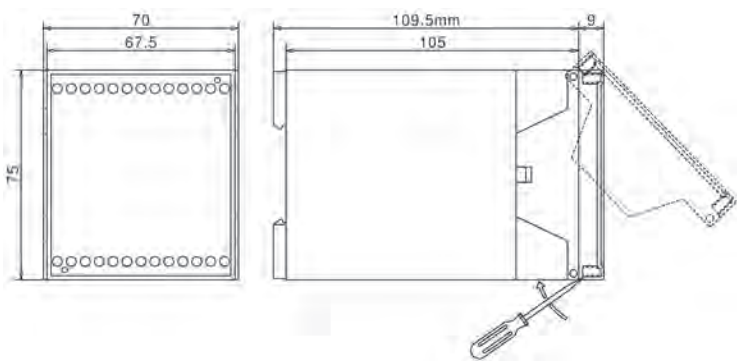
The measurand is transmitted to the amplifier or impedance converter via an input protective circuit. The direct voltage generated there is transformed into an impressed direct current and in an impressed direct voltage. The galvanic isolation is realized using an optocoupler. Both outputs are no-load proof and short-circuit proof. Connecting the two outputs is not permissible. The limit value may be adjusted within a range of 0-120 % of the input signal. Exceeding the limit value is indicated by an LED. An auxiliary voltage is required.



## Connection



## Technical data

<b>Input</b>	Input variable	Direct current or direct voltage
	Rated values	MA-GT.1 a value from 0-100 $\mu$ A to 0-5 A, voltage drop 60 mV MV-GT.1 a value of 0-1000 V or 0-1500 V, $R_i = 2 M\Omega$
	Option	● Transmission of both polarities (no limit value monitoring!)
	Overload permanent	for current 2-fold, for voltage 5-fold / max. 2000 V
	High surge load	for current 20-fold, 1 s
<b>Output</b>	Output variable	Double output
	Rated values	0-20 mA / 0-500 $\Omega$ load and 0-10 V, max. load 10 mA as well as 4-20 mA / 0-500 $\Omega$ load and 2-10 V, max. load 10 mA, switchable on the front side
	Limit value output	1 NO, hysteresis approx. 4 % of limit value, contact load max. 0.1 A AC/DC, 250 V AC/DC
	Function indicator	red LED if limit value is exceeded
<b>Transmission behavior</b>	Accuracy	+/-0.5 %
	Temperature range	-15 $^{\circ}$ C to +20 $^{\circ}$ C to +30 $^{\circ}$ C to +55 $^{\circ}$ C
	Temperature influence	< 0.2 % at 10 K
	Auxiliary voltage influence	no
	Load influence	no
	External magnetic field influence	no (to 400 A/m)
	Residual ripple	< 50 mVss
	Response time	< 300 ms
	Open-circuit voltage	max. 24 V
	Current limiting	max. 2-fold in case of overload
	Test voltages	7.4 kV between input to output, input to auxiliary voltage and input to relay contacts 4 kV between output to auxiliary voltage and to relay contacts
<b>Standards</b>	EMC	DIN EN 61326
	Mechanical strength	DIN EN 61010 Part 1
	Electrical safety	DIN EN 61010 Part 1 Housing insulated, protection class II for working voltages up to 1000V (phase to neutral) pollution level 2, Measuring category CAT III
	Accuracy, overload	DIN EN 60688
	Isolation	DIN EN 61010 Part 1, 3.52 kV 50 Hz 10 s and 7.4 kV 50 Hz 10 s
	Air and creep distances	DIN EN 61010 Part 1
	IP code	DIN EN 60529 Housing IP30, terminals IP20
	Connection	DIN 43807
<b>Auxiliary voltage</b>	21-265 VAC + DC, 2 VA	
<b>Weight</b>	220 g	
<b>Dimensions</b>		
<b>Installation</b>	Fastening	Snap-on fastening on top hat rail 35 mm accord. to DIN EN 60715
	Electrical connection	Screw terminal max. 4 mm <sup>2</sup>