



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

Type:  
**IgTT-MU / UgTT-MU**



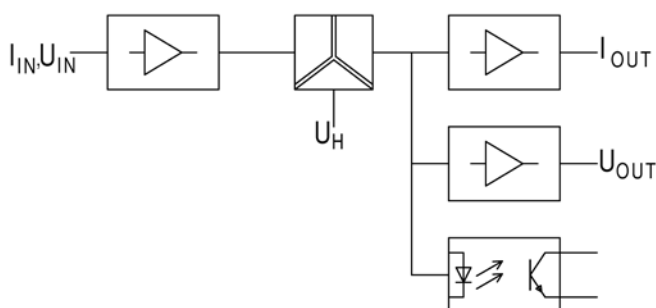
### Application

The measuring transducers IgTT-MU and UgTT-MU 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.

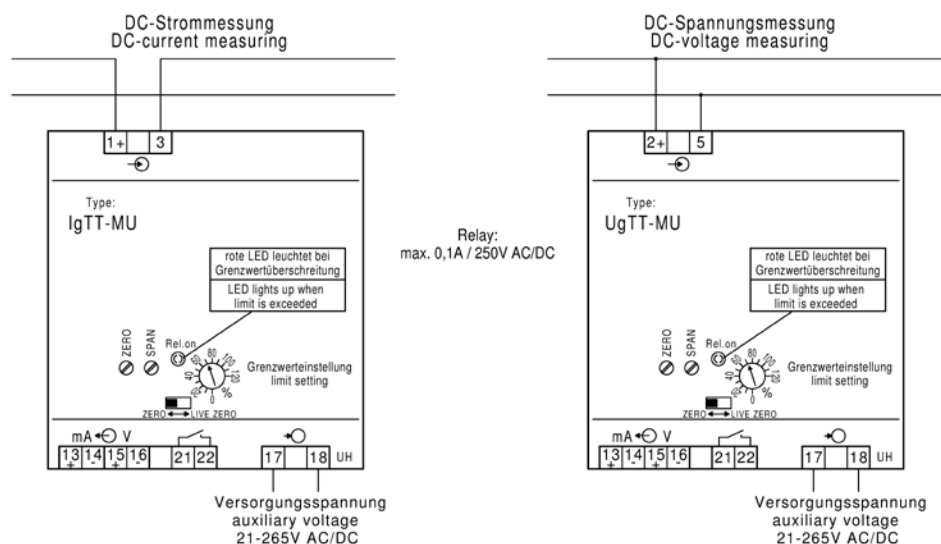


### Function

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



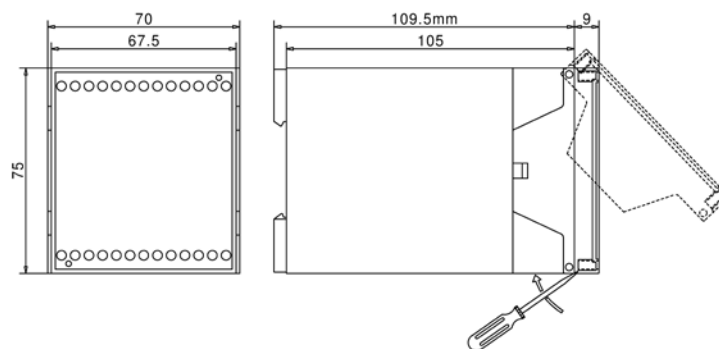
### Types and variants

<b>Input</b>	<b>IgTT-MU</b>	a value from 0-100 $\mu$ A to 0-5 A
	<b>UgTT-MU</b>	a value of 0-1500 V (other values on request)
<b>Output</b>		0-20 mA and 0-10 V as well as 4-20 mA and 2-10 V switchable on front side
<b>Surcharges</b>	Both polarities	(e.g. input -20-0-20 mA, output 20-0-20 mA or e.g. input 20-0-20 mA, output 0-10-20 mA)



## Technical data

<b>Input</b>	Input variables	direct current of direct voltage	
	Rated values	I <sub>gTT-MU</sub> a value from 0-100 µA to 0-5 A, voltage drop 60 mV U <sub>gTT-MU</sub> a value of 0-1500V, R <sub>i</sub> = 2 MΩ	
	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 variables	double output	
	Rated values	0-20 mA/0-500 Ω load and 0-10 V max. load 10 mA as well as 4-20 mA/0-500 Ω load and 2-10 V max. load 10 mA, switchable on front side	
	Limit value output	1 NO contact, 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>Transfer behavior</b>	Accuracy	± 0,5 %	
	Temperature range	-15 °C to +20 °C to +30 °C to +55 °C	
	Temperature influence	< 0,2 % at 10 K	
	Auxiliary voltage influence	no	
	Load influence	no	
	External magnetic field influence	no (400 A/m)	
	Residual ripple	< 50 mV <sub>SS</sub>	
	Response time	< 300 ms	
	Open circuit voltage	max. 24 V	
	Current limiting	max. 2-fold in case of overload	
	Test voltage		7,4 kV between input to output, input to auxiliary voltage and input to relay contacts
			4 kV between output to auxiliary voltage and 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 acc. to DIN EN 60 715
	Electrical connection	Screw terminal max. 4 mm <sup>2</sup>