



Measuring transducers for direct current and direct voltage

Type:
IgT-MU, UgT-MU



Application

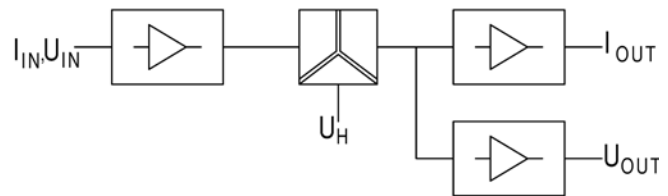
The measuring transducers IgT-MU and UgT-MU are used for the transformation and isolation of a direct current or a direct voltage into an impressed direct current and direct voltage signal. The calibrated double outputs are switchable between 0-20 mA and 0-10 V or 4-20 mA and 2-10 V.



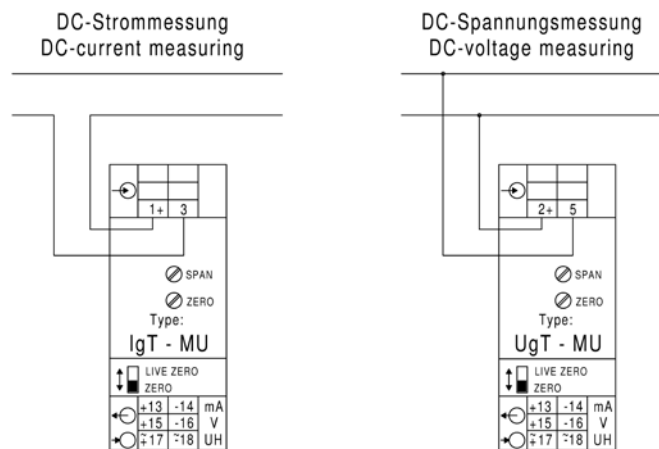
Function

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. An auxiliary voltage is required.



Connection



Types and variants

Input	IgT-MU	a value from 0-100 μ A to 0-5 A
	UgT-MU	a value from 0-5 mV to 0-600 V
Output	0-20 mA and 0-10 V as well as 4-20 mA and 2-10 V switchable on front side	
Surcharges	Input directly up to 10 A for Type IgT-MU	
	Sub-range	
	Response time < 200 μ s	
	Input 4-20 mA	
	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)
	Class 0,2	
	Auxiliary voltage other than 230 V AC:	
	24 V DC	
	6-30 V AC + DC	
	36-265 V AC + DC	
	110 V AC	
Frequency module	Type FM (frequency output 0-5 Hz up to 0-10 kHz) - (description page 10)	
Relay module	for limit monitoring Type GWM - (description page 11)	



Technical data

Input	Input variables	direct current or direct voltage
	Rated values	IgT-MU a value from 0-100 μ A to 0-5 A, voltage drop 60 mV UgT-MU a value from 0-5 mV to 0-600 V Ri = 100 k Ω up to 1 V, > 1 V 100 k Ω / V, but max. 2 M Ω
	Option	● transmission of both polarities
	Overload permanent	current: 2-fold voltage: 5-fold / max. 830 V
	High surge load	current: 20-fold, 1 s
Output	Output variables	double output
	Rated values	0-20 mA/ 500 Ω load and 0-10 V max. load 10 mA as well as 4-20 mA/ 500 Ω load and 2-10V max. load 10 mA, switchable at front side
	Options	● bipolar output e.g. - 20 - 0 - + 20 mA / 500 Ω load and, - 10 - 0 - + 10 V / max. load 10 mA ● zero point rise e.g. 0-10-20 mA / 500 Ω load and 0-5-10 V / max. load 10 mA
Transfer behavior	Accuracy	\pm 0,5 %
	Temperature range	-15 $^{\circ}$ C to +20 $^{\circ}$ C to +30 $^{\circ}$ C to +55 $^{\circ}$ C
	Temperature influence	< 0,1 % at 10 K
	Auxiliary voltage influence	no
	Load influence	no
	External magnetic field influence	no (400 A/m)
	Residual ripple	< 15 mVss
	Response time	< 300 ms
	Open circuit voltage	max. 24 V
	Current limiting	max. 2-fold in case of overload
	Test voltage	< 500 V: 4 kV between input, output, auxiliary voltage > 500 V: 5,2 kV between input and output 4 kV input / output to auxiliary voltage
Auxiliary voltage		230 V AC \pm 20 %, 45-65 Hz, 2,5 VA
	Options	● 110 V AC \pm 20 %, 45-65 Hz, 2,5 VA ● 24 V DC - 15 % to + 25 %, 2 W ● 6-30 V AC + DC, 2 VA ● 36-265 V AC + DC, 2 VA
Dimensions	Housing	Housing A, (22,5 mm wide) page A1
Weight		170 g
Installation	Fastening	Snap-on fastening on top hat rail 35 mm acc. to DIN EN 60 715
	Electrical connection	Screw terminal max. 4 mm ²