Measuring transducer for direct current and direct voltage

Type:

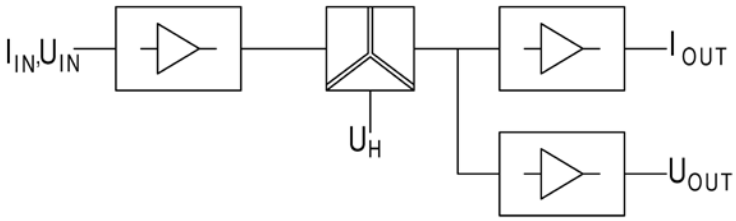
IgT-MU, UgT-MU

Application

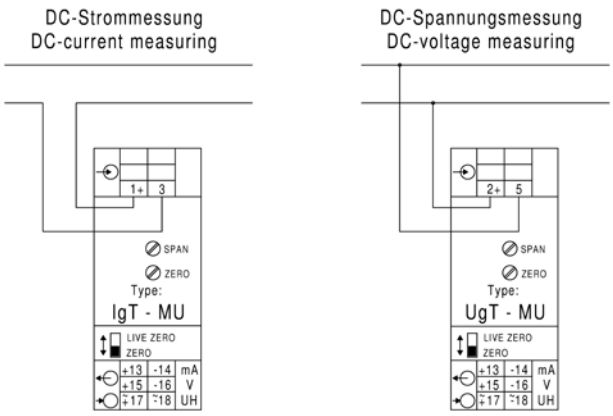
The measuring transducers IgT-MU and UgT-MU are used for the transformation and isolation of a direct current or a direct voltage into an impressed direct current and direct voltage signal. The calibrated double outputs are switchable between 0-20 mA and 0-10 V or 4-20 mA and 2-10 V.

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



Price

Input	IgT-MU a value from 0-100 µA 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 the front side	€ 120.00
Surcharges	Input directly up to 10 A for type IgT-MU	€ 6.80
	Sub-range	€ 21.50
	Response time < 200 µs	€ 6.80
	Input 4-20 mA	€ 18.00
	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)	€ 24.00
	Auxiliary voltage other than 230 V AC:	
	24 V DC	€ 31.00
	6-30 V AC + DC	€ 52.00
	36-265 V AC + DC	€ 44.50
	110 V AC	€ --.--
Frequency module type FM (frequency output 0-5 Hz up to 0-10 kHz)		€ 27.00
(description Page 8)		
Relay module for limit monitoring type GWM		€ 66.80
(description Page 9)		

Price group B

Technical data

Input	Input variable	Direct current or direct voltage
	Rated values	IgT-MU a value from 0-100 µA 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, however 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 2-10 V / max. load 10 mA
		switchable on the 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
Transmission behavior	Accuracy	± 0.5 %
	Temperature range	- 15 °C to +20 °C to +30 °C to 55 °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 ± 20 %, 45-65 Hz, 2.5 VA
	Options	● 110 V AC ± 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 accord. to DIN EN 60 715
	Electrical connection	Screw terminal max. 4 mm²