



Measuring transducer for standard signals

with selectable calibrated inputs and outputs

Type:
NgT-MU



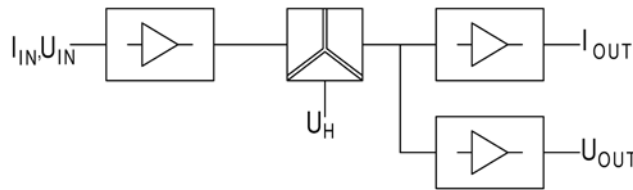
Application

The measuring transducer NgT-MU is used for the transformation and isolation of a direct current or direct voltage standard signal into an impressed direct current and direct voltage signal. The calibrated inputs are selectable between the standard signals 0-20 mA, 4-20 mA, 0-10 V or 2-10 V. The calibrated double outputs are switchable between 0-20 mA and 0-10 V, 4-20 mA and 2-10 V, 0-10 mA and 0-5 V or 2-10 mA and 1-5 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

2+	5-	V
1+	3-	mA
INPUT		
4-20mA or 2-10V		
0-20mA or 0-10V		
Type: NgT - MU		
OUTPUT		
10mA / 5V		
20mA / 10V		
LIVE ZERO		
ZERO		
+13	-14	mA
+15	-16	V
+17	-18	UH

Normsignaleingänge Inputs for standard signals

- 1+ / 3- = 0-20mA
- 1+ / 3- = 4-20mA
- 2+ / 5- = 0-10V
- 2+ / 5- = 2-10V



Types and variants

Input	0-20 mA, 4-20 mA, 0-10 V and 2-10 V
Output	0-20 mA and 0-10 V, 4-20 mA and 2-10 V, 0-10 mA and 0-5 V as well as 2-10 mA and 1-5 V switchable on front side
Surcharges	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	0-20 mA, 4-20 mA, $R_i = 100 \Omega$, 0-10 V, 2-10 V, $R_i = 50 k \Omega$
	Overload permanent	current: 2-fold voltage: 5-fold
	High surge load	current: 20-fold, 1 s voltage: 5-fold
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 front side or 0-10 mA / 500 Ω load and 0-5 V / max. load 10 mA as well as 2-10 mA / 500 Ω load and 1-5 V / max. load 10 mA switchable on front side
Transfer behavior	Accuracy	$\pm 0,5 \%$
	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 mV _{ss}
	Response time	< 30 ms
	Open circuit voltage	max. 24 V
	Current limiting	max. 2-fold in case of overload
	Test voltage	4 kV between input, output, auxiliary voltage
Auxiliary voltage		230 V AC $\pm 20 \%$, 45-65 Hz, 2,5 VA
	Options	<ul style="list-style-type: none"> ● 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		180 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