



Measuring transducers for summation

Type:
Sum-MU



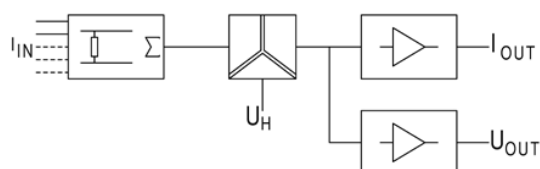
Application

The measuring transducer Sum-MU is used for the transformation and isolation of the sum of several direct currents 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.

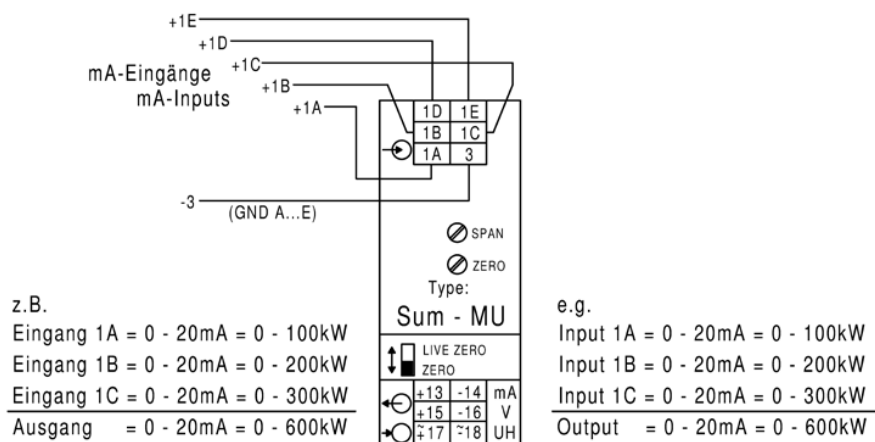


Function

The up to 5 direct currents are converted in direct voltages using shunts and added up. The direct voltage thus generated is galvanically isolated using an optocoupler, amplified and transformed into an impressed direct current or in an impressed direct voltage. The output is no-load and short-circuit proof. Connecting the two outputs is not permissible. An auxiliary voltage is required.



Connection



Types and variants

Input	(Please specify valences of the inputs to each other in the order) 2 direct currents of: 0-20 mA 4-20 mA
Output	0-20 mA and 0-10 V as well as 4-20 mA and 2-10 V, switchable on front side
Surcharges	Input: per additional input (max. 5 inputs possible) 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
	Rated values	max. 5 direct currents of 0-20 mA or 4-20 mA, $R_i = 3 \Omega$ It is possible ex works to assign a value to each input e. g. Input 1A = 0-20 mA corresponds to 0-150 kW => value 0.25 Input 1B = 0-20 mA corresponds to 0-150 kW => value 0.25 Input 1C = 0-20 mA corresponds to 0-300 kW => value 0.5 Output 0-20 mA corresponds to 0-600 kW => value 1,0 Please specify when ordering!
	Overload permanent	2-fold
	High surge load	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 front side
Transfer behavior	Accuracy	$\pm 0,5 \%$
	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	< 30 mVss
	Response time	< 300 ms
	Open circuit voltage	max. 24 V
	Current limiting	max. 2-fold in case of overload
Auxiliary voltage	Test voltage	4 kV between input, output, 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		190 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