



Measuring transducers for summation

Type:
Sum-MU



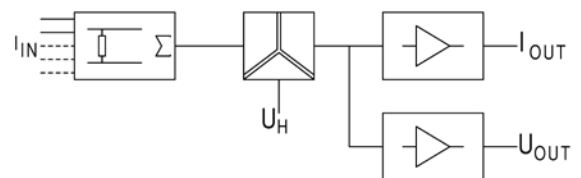
Application

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.

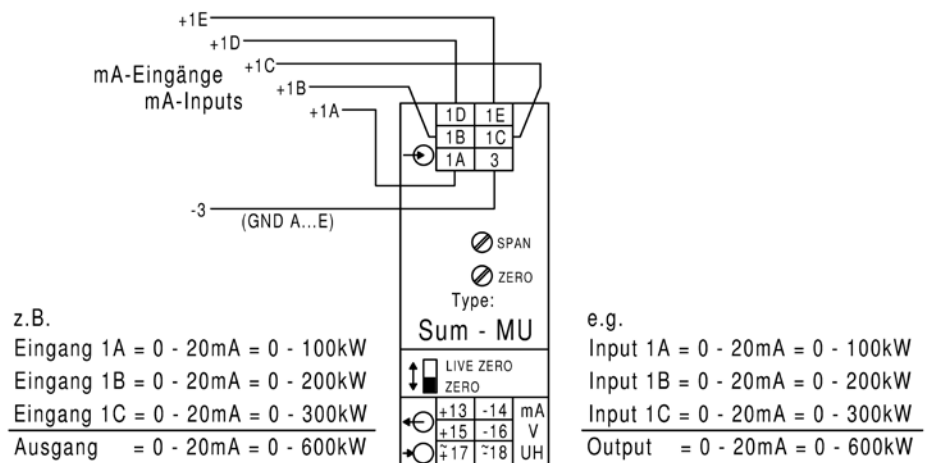


Function

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 mV _{ss} |
| | Response time | < 300 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 | | 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 |