# Measuring transdurcer for direct current power

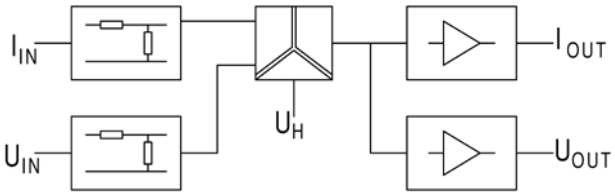
Type:
**PGs-MU**

## Application

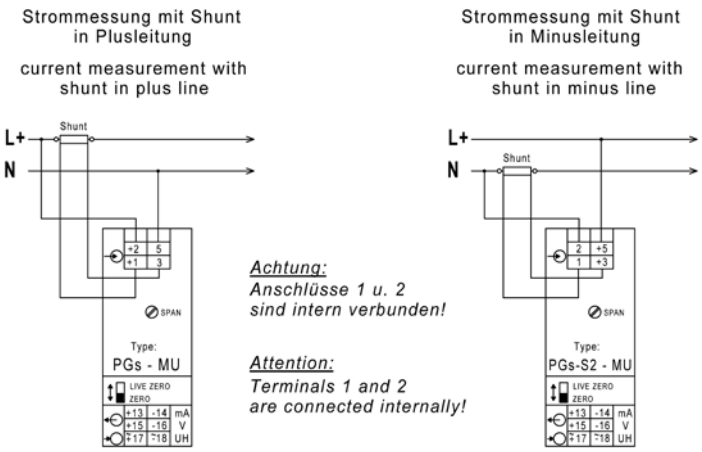
The measuring transducer PGs-MU is used for the transformation and isolation of a DC power into an impressed direct current and direct voltage signal. The calibrated double outputs are switchable between 0-20 mA and 0-10 V or 4-20 mA and 2-10 V.

## Function

The parameters to be measured are transmitted to the analog multiplier via internal voltage dividers or shunts. The instantaneous values are then multiplied and formed as the mean value of a direct voltage matching the active power in a subsequent integration stage. The galvanic isolation between input and output signals is done using optocoupler. A downstream amplifier supplies the impressed direct current and direct voltage signals. 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** | 50-150 % of the power, voltage: a value of 10-600 V |
| | current: shunt ... A/60 mV (please specify current!) |
| **Output** | 0-20 mA and 0-10 V as well as 4-20 mA and 2-10 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) |

Price group B

## Technical data

| | | |
|---|---|---|
| **Input** | Input variables | direct current power (DC power) |
| | Nominal power | 50-150 % of the DC power P = U x I |
| | Rated current | via seperate shunt with 0-60 mV, Ri ≥ 10 M Ω |
| | Rated voltage | a value from 0-10 V to 0-600 V<br>Ri ≥ 4 k Ω / V |
| | Overload permanent | current input (shunt) 1,2-fold<br>voltage input 5-fold / max. 830 V |
| | High surge load | current input 5-fold 5 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<br>4-20 mA / 500 Ω load and 2-10 V / max. load 10 mA,<br>switchable on front side |
| **Transfer behavior** | Accuracy | ± 0,5 % |
| | Temperature range | -15 °C to +20 °C to +30 °C to +55 °C |
| | Temperature influence | < 0,3 % at 10 K |
| | Auxiliary voltage influence | no |
| | Load influende | 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 |
| | Test voltage | 4 kV between input, output, 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<br>● 24 V DC - 15 % to + 25 %, 2 W<br>● 6-30 V AC + DC, 2 VA<br>● 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 mm² |