

Measuring Transducers

{ sinusoidal) Type MV - 1.1 s



The measuring transducer MV-1.1s is used for the transformation and galvanic isolation of a sinusoidal alternating voltage into an impressed direct current and (or) direct voltage signal. The alternating current to be measured is transmitted to a voltage transformer, serving for galvanic isolation and transformation and from there to the downstream rectifier circuit. The direct voltage generated there is amplified and transformed into an impressed direct current and (or) in an impressed direct voltage. The output is no-load proof and short-circuits proof. Only for "LIVE ZERO", an auxiliary voltage is required.

Technical Data

Input Data

Input variable	sinusoidal alternating voltage
Rated values	0-100 V, 0-120 V, 0-250 V, 0-500 V and 0-600 V (in case of voltages > 500 V, an auxiliary voltage is required)
Rated frequency	50-60 Hz or 400 Hz
Energy consumption	1 VA, with "LIVE ZERO" 0,3 VA
Overload permanent	1,2-fold
High surge load	2-fold, 1 sec.

Output Data

Outputs	0-20 mA/0-500 Ohm load no Auxiliary Voltage 0-10 V max. 10 mA load no Auxiliary Voltage 4-20 mA/0-500 Ohm with Auxiliary Voltage 4-20 mA/0-500 Ohm load and 2-10 V max no Auxiliary Voltage . 10 mA load, switchable on front side, if both outputs are used simultaneously, the maximum load on the voltage output is 1 mA, $I_{max} < 40 \text{ mA}$, $U_{max} < 24 \text{ V}$
Option	<ul style="list-style-type: none"> • frequency module a value from 0-5 Hz to 0-10 kHz ○ „open-collector“ NPN, max. 30V, 100 mA load, impulse/break 50/50 % ○ Square wave signal 5V, max. 10 mA load, impulse/break 50/50 %

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Auxiliary Voltage

Default	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, (EMC EN 61326 class A) • 6-30 V AC+DC or 36-265 V AC+DC, 2 VA, (EMC EN 61326 class A)

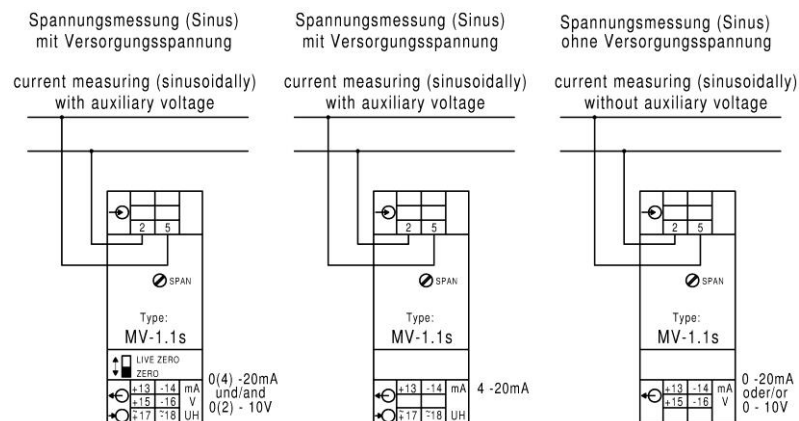
General Data

Accuracy	$\pm 0,5\%$ full scale at 10-100 % of rated value (with auxiliary voltage 0-100 % of rated value)
Frequency influence	$< 0,05\%$ with 10 Hz
Response time	< 400 ms
Operation temperature	-15 to $+20$ to $+30$ to $+55$ °C
Storage temperature	-25 ... $+85$ °C
Temperature influence	$< 0,1\%$ at 10 K
Installation	<p>snap on mounting on top hat rail 35 mm (EN 60715) The equipment is suitable for tight on tight assembly, however, with ambient temperatures of >45 °C a distance apart of 10 mm is recommended. The assembly location should if possible be free from vibration.</p>
Terminals	screw terminal max. 4 mm ² , tightening torque 0,8 Nm
Weight	190 g

Adjustment

After open the clear cover it is possible to adjust with a screwdriver with a width of 2,5 mm on the potentiometer which is named "SPAN" the final value. All transducers of this type with double output, the output can be changed between "LIVE ZERO" (4-20 mA/2-10 V) and "ZERO" (0-20 mA/0-10 V) with the slide switch.

Connection



For devices with frequency output further outputs not available. Terminals +13 and -14 are the frequency output.

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