



MEASURING TRANSDUCERS FOR ALTERNATING CURRENT (SINUSOIDAL)

Iw-MU

General information	This operating manual is included with the equipment as standard. It contains the information required for correct usage. It is aimed at trained personnel and specialist staff who are familiar with the assembly, installation and commissioning of the product described here. If additional information is required, further details can be requested by the address given below.
Conformity	This equipment conforms to the requirements of the Directive from the Council of the European Community on the harmonisation of the member states regarding electromagnetic compatibility, EMC Directive 2004/108/EC, as well as Low Voltage Directive 2006/95/EC.
Application	The measuring transducers Iw-MU serve to convert a sinusoidal alternating current into a load-independent direct-current and/or direct-voltage signal. In the version with double outputs the outputs are switchable between 0-20 mA / 0-10 V and 4-20 mA / 2-10 V.
Function	The alternating current to be measured will get to the succeeding rectifying circuit via a current transformer serving for galvanic separation. The direct voltage gained in this way will be increased and converted into a load-independent direct-current and/or into an impressed direct voltage. The outputs are no-load resistant and short-circuit proof. Any connection between both outputs will be unacceptable. An auxiliary voltage will be required only in case of "live zero" resp. for the version with double outputs.

Technical data

Input	Input quantity	sinusoidal alternating current
	Rated values	0-1 A or 0-5 A
	Rated frequency	50 Hz, 60 Hz or 400 Hz
	Overload permanent	2-fold
	Surge overload	20-fold 1 sec.
	Own consumption	1 VA, in case of "live zero" 0,3 VA
Output	Output quantities	single-output or double-output
	Rated values	0-20 mA/750 Ohm of load or 0-10 V max. load 20 mA
	Option	- "live zero" 4-20 mA/750 Ohm of load (aux. will be required) - 0-20mA /0-500 Ohm of load and 0-10V max. load 10 mA as well as 4-20mA /0-500 Ohm of load and 2-10V max. load 10 mA front-laterally switchable (aux. will be required) - Frequency module - a value of 0 – 5 Hz up to 0 – 10 kHz <ul style="list-style-type: none"> o „Open-collector“ NPN, max. 30V 100 mA loadable, impulse/break 50/50 % o Square wave signal 5V, max. 10 mA loadable, impulse/break 50/50 %
Dynamic system behaviour	Accuracy	+/- 0,5 % at 5-100 % of the rated value (in case of aux. 0-100 % of the rated value)
	Frequency influence	< 0.01 % with difference frequency 10 Hz
	Temperature range	-15°C up to <u>+20°C up to +30°C</u> up to +55 °C
	Temperature influence	< 0,1 % at 10 K
	Influence of aux.	none
	Load influence	none
	External magnetic field influence	none (up to 400 A/m)
	Residual ripple	< 40 mV _{ss}
	Response time	< 400 ms (with frequency module < 400 ms)
	No-load voltage	max. 24 V
	Current limitation	max. 2-fold in case of saturation
	Testing voltage	4 kV between input and output, input and aux., output and aux.
Adjustment	After taking off the plexiglass cover it is possible to adjust with the potentiometer which is named "SPAN" the final value. In case of switchable double-outputs the outputs can be switched over with the slide between "LIVE ZERO" (4-20 mA/2-10 V) and "ZERO" (0-20 mA/0-10 V).	



MÜLLER + ZIEGLER GmbH & Co. KG, Industriestr. 23, D-91710 Gunzenhausen
Tel. +49 (0) 98 31.50 04 0, Fax +49 (0) 98 31.50 04 20
<http://www.mueller-ziegler.de>, e-mail: info@mueller-ziegler.de

Regulations	EMC	DIN EN 61326
	Mechanical strength	DIN EN 61010 part 1
	Electrical security	DIN EN 61010 part 1
		Housing all insulated, protection class II, at a working voltage up to 300V (network to neutral conductor) degree of pollution 2, overvoltage category CAT III
		at a working voltage up to 600V (network to neutral conductor) degree of pollution 2, overvoltage category CAT II
	Accuracy, overload	DIN EN 60688
	Separation	DIN EN 61010 part 1, 3,52 kV 50 Hz 10 sec.
	Air gaps and creep distances	DIN EN 61010 part 1
	System of protection	DIN EN 60529 housing IP30, terminals IP20
	Connection	DIN 43807

Auxiliary voltage

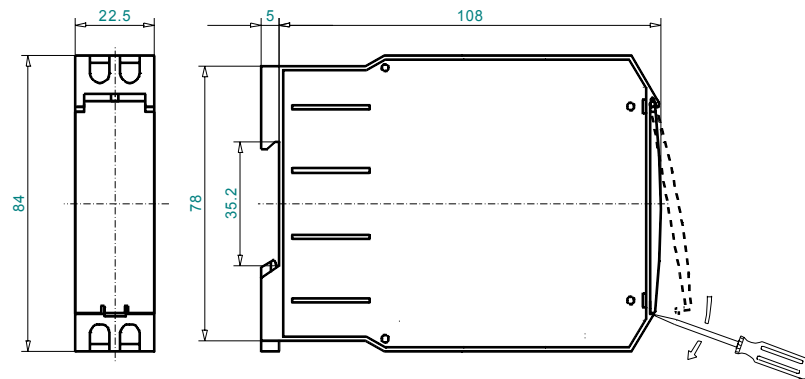
Only necessary in case of "live zero" or in case of switchable double outputs:

- Option
- 230 V AC \pm 20 %, 45-65 Hz, 2,5 VA
 - 110 V AC \pm 20 %, 45-65 Hz, 2,5 VA
 - 24 V DC, -15 % bis +25 %, 2 W, (EMC DIN EN 61326 class A)
 - 6-30 V AC + DC or 36-265 V AC + DC, 2 VA, (EMC DIN EN 61326 class A)

Weight

190g

Dimensions

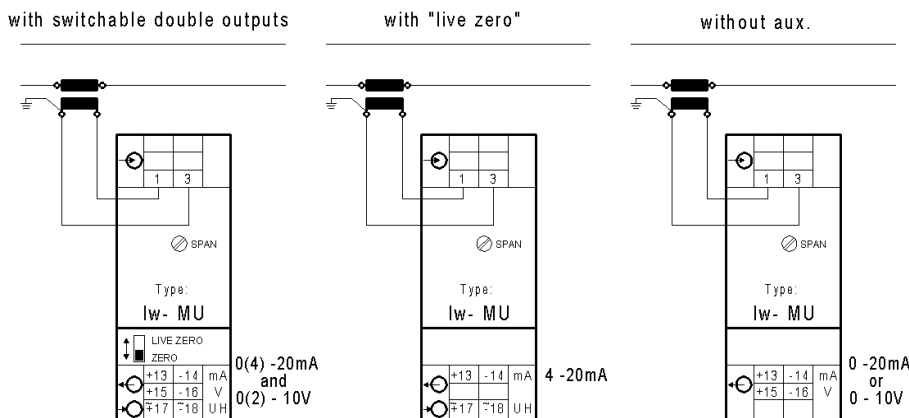


Installation

Attachement snap-on mounting according to DIN EN 50 022
Electrical connection threaded terminal end 4 mm² max.

Connection

AC-current measurement (sinusoidal)



Transducers with frequency module have no further outputs and no "LIVE-ZERO"-switching. At the clamps +13 and -14 the frequency output is available.

Warning!

Before starting any work on or in a device, it must be disconnected from the mains or switched to a voltage-free state.

Maintenance

The device is maintenance-free when used correctly.

Caution!

Servicing or maintenance work must only be carried out by trained specialist personnel.



MÜLLER + ZIEGLER GmbH & Co. KG, Industriestr. 23, D-91710 Gunzenhausen

Tel. +49 (0) 98 31.50 04 0, Fax +49 (0) 98 31.50 04 20

<http://www.mueller-ziegler.de>, e-mail: info@mueller-ziegler.de