UMG 96-S2

Universal energy measurement device

for panel mounting 96 x 96 mm

MÜLLER ZIEGLER Elektrische Messgeräte

ab 01.03.2022
zzgl. 6,8 %
Teuerungszuschlag

Communication
- Modbus RTU

Power quality
- Harmonics up to 15th harmonic

Accuracy of measurement
- Energy: class 0,5S (.../5 A)
- Current and voltage: 0,2%

Interface
- RS485

Networks
- TN-, TT-networks

Power grid monitoring software
- Free GridVis®-Basic

Outputs
- 1 digital output (S0-interface)

www.mueller-ziegler.de

made in germany

Version 22.07.01 • Technical changes reserved.
The current status of the brochure is available at www.mueller-ziegler.de.

Application

The UMG 96-S2 is suitable for measuring and checking electrical parameters and energy consumption as well as for monitoring the voltage quality parameters, such as harmonics. Applications can be found in energy distribution systems, for example for cost center recording and limit value monitoring. Furthermore, the device can be used as a sensor for building management systems or a PLC.

Main features

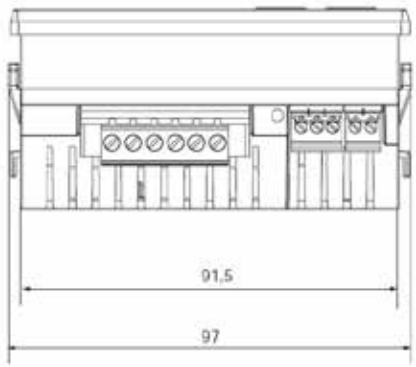
- 4 Voltage measurement inputs (300 V CATIII)
- 3 Current measurement inputs
- Continuous sampling of voltage and current measurement inputs
- Sampling frequency 8 kHz
- Transfer of the measured values via a serial interface
- Harmonics analysis up to 15th harmonic

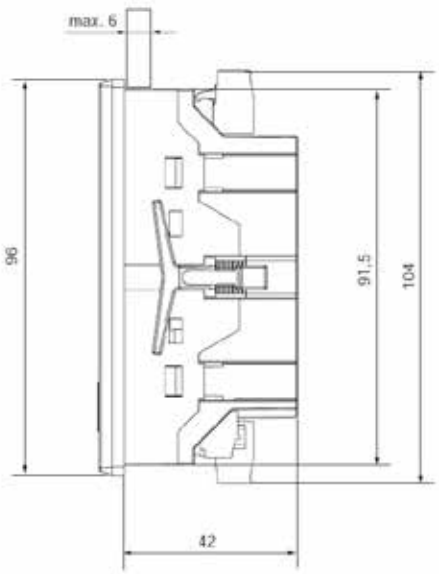
UMG 96-S2 rear view

General data

Weight	Net weight (with attached connectors)	approx. 250 gr
	Packaging weight (including accessories)	approx. 500 gr
	Impact resistance	IK07 acc. to IEC 62262
Transport and storage	Free fall	1 m
	Temperature	K55 (-25° C to +70° C)
	Relative humidity	0 to 90% RH
Ambient conditions during operation	Protection class	II acc. to IEC 60536 (VDE 0106, part 1)
	Operating temperature range	K55 (-10° C to +55° C)
	Relative humidity	0 to 75% RH
	Operating altitude	0 to 2000 m above sea level
	Degree of pollution	2
	Installation position	any
	Ventilation	no external ventilation required
	Protection against foreign bodies and water	in acc. with EN 60529
	- Front	IP40
	- Rear	IP20
	- Front side with sealing	IP54

Dimensions





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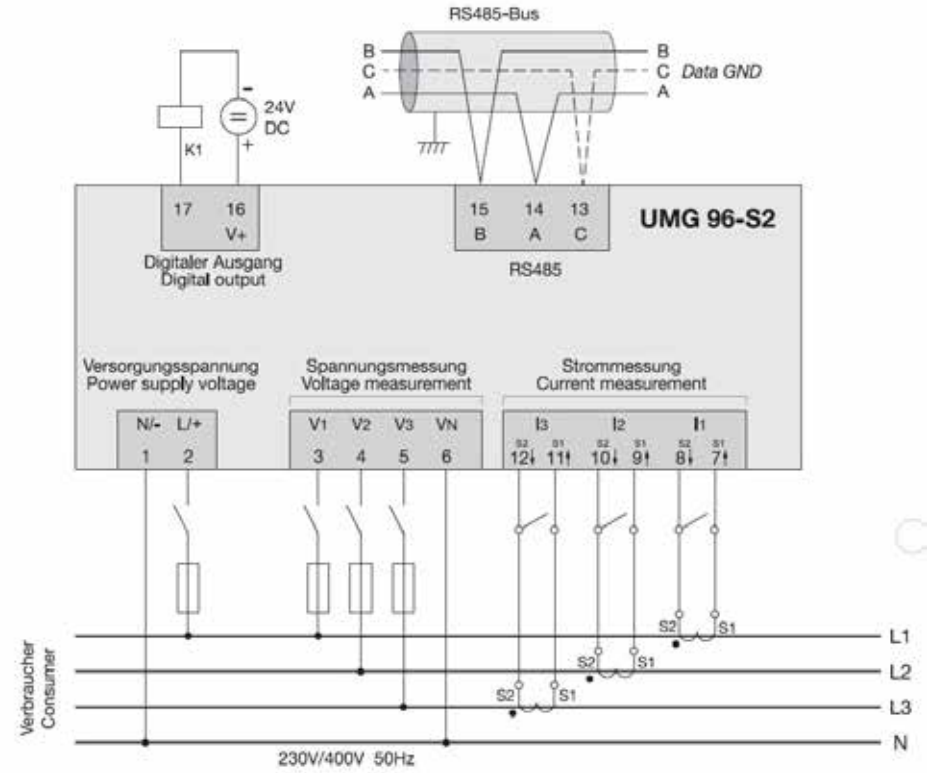
Typical connection variant



Technical data

Supply voltage	Nominal range	AC 90 V - 265 V (50/60 Hz) or DC 90 V - 250 V, 300V CAT III
	Operating range	+/10% of nominal range
	Power consumption	max. 1,5 VA / 0,5 W
	Internal fuse (not exchangeable)	Type T1A / 250 VDC / 227 VAC acc. to IEC 60127
	Recommended overcurrent protection device for the line protection	6-16 A (Char. B, IEC- UL-approval)

Voltage measurement	Nominal voltage	230/400 V (+/- 10%), 3-phase 4-wire systems
	Overvoltage category	300 V CAT III
	Measurement voltage surge	4 kV
	Fuse for the voltage measurement	1 - 10 A (with IEC- /UL-approval)
	Measuring range L-N	0[1] - 300 Vrms (max. overvoltage 400 Vrms)
	Measuring range L-L	0[1] - 425 Vrms (max. overvoltage 425 Vrms)
	Measurement range exceedance L-N	U_{L-N} > 300 Vrms
	Resolution	0,01 V
	Crest factor	1,9 (related to the measurement range)
	Impedance	3 MΩ / phase
	Power consumption	ca. 0,1 VA
	Sampling frequency	8 kHz
	Frequency of the basic oscillation	45 Hz ... 65 Hz, resolution 0,01 Hz

[1] The device only determines the measured values if voltage L1-N is greater than 20 Veff (4-conductor measurement) or voltage L1-L2 is greater than 34 Veff (3-conductor measurement) on voltage measurement input V1.

Current measurement	Rated current	x/1 and x/5 A
	Metering range	0-6 Arms
	Measurement range exceedance	I > 7 Aeff
	Crest factor	2 (based on the rated current)
	Resolution	1 mA (display 0,01 A at .../5 A; 1/4 mA at .../1 A
	Overvoltage category	300 V CAT II
	Measurement voltage surge	2 KV
	Power consumption	approx. 0,2 VA (Ri = 5 m Ω)
	Overload 1 s	60 A (sinusoidal))
	Sampling frequency	8 kHz
Serial interface	RS485 - Modbus RTU / Slave	9,6 kbps, 19,2 kbps, 38,4 kbps
Digitale output	1 digital output	semiconductor relay, not short-circuit proof
	Switching voltage	max. 60 V DC
	Switching current	max. 50 mAeff DC
	Pulse output (energy pulse)	max. 12,5 Hz
Terminal connection capacity	supply voltage/voltage measurement/current measurement	Connectable conductor (Connect only one conductor per terminal!)
	Single core, multi-core, fine-stranded	0,08 - 2,5 mm^2, AWG 28-16
	Terminal pins, core end sheath	0,2 - 2,5 mm^2
	Tightening torque	0,4 - 0,5 Nm (3.54 - 4.43 lbf in)
	Stripping length	7 mm (0.2756 in)
Terminal connection capacity	Serial interface / digital interface	
	Single core, multi-core, fine-stranded	0,2 - 1,5 mm^2, AWG 28-12
	Terminal pins, core end sheath	0,2 - 1,5 mm^2
	Tightening torque	0,2 - 0,25 Nm (1.77 - 2.21 lbf in)
	Stripping length	7 mm (0.2756 in)

€ Price

Type	UMG 96-S2	Version 52.34.002	€ 195,00

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