HIGH PRECISION MULTIPURPOSE DEVICE
YOU INCREASE THE TRANSPARENCY OF YOUR ENERGY DATA –
WITH THE UNIVERSAL MEASUREMENT DEVICE UMG 96-S2

Qualified statements about energy consumption and power quality can only be made through measurements that extend beyond the feed point. If you would like to locate disturbances or energy wasters, data must be recorded at multiple points in the network. The granularity (resolution) of the measurement is key.

The new UMG96-S2 is an ideal solution for this task. This energy measurement device stands out as a comprehensive multipurpose device. It is suitable for measuring and controlling electrical variables and energy consumption as well as for monitoring the power quality parameters, such as harmonics. It is used in energy distribution systems, for example, for recording cost centers and monitoring thresholds. In addition, the device can also be used as a measurement value sensor for building management systems or a PLC.
AT A GLANCE

UNIVERSAL AREA OF APPLICATION
Suitable for TN and TT networks with a 1 and 5 A transformer connection

HIGH ACCURACY OF MEASUREMENT
Active energy with precision class 0.5S (.../5 A transformer)

TARIFF SWITCHING
Simple tariff conversion as additional building block for energy and cost transparency

LOW EFFORTS DURING INTEGRATION
An open communication channel via Modbus RTU offers direct access into higher level networks

LOW CONFIGURATION REQUIREMENTS
Straightforward use with low configuration requirements

COMPACT DESIGN
High performance in a compact 96 design with a low installation depth

COMPATIBILITY
Low integration requirements due to high compatibility for conventional transformers

VISUALIZATION AND DOCUMENTATION
Comprehensive options for data acquisition, visualizing and reporting through the GridVis®-Basic (network visualization software)

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**UMG 96-S2**

**AUX. SUPPLY**
90-265 V AC/90-250 V DC, 300 V CAT III

**PULSE OUTPUT**
Output of energy consumption as a 50 pulse

**VOLTAGE MEASUREMENT INPUTS**
230 V / 400 V, 300 V CAT III

**CURRENT MEASURING INPUTS**
1/5 A, 300 V CAT II

**INTERFACE**
RS485 with Modbus RTU

**MASTER SLAVE PRINCIPLE**

*UMG 512-PRO*
Measurement of the main feed-in with event analysis

*GridVis® software*
Database

*UMG 96RM*
Operating and RCM measurement of the supply line to the sub-distribution

*UMG 96-S2*  
Slave 1

*UMG 96-S2*  
Slave 2

*UMG 96-S2*  
Slave 3
Technical data

UMG 96-S2
90-265 V AC / 90-250 V DC, 300 V CAT III

Item no. 52.34.001

General information
Measurement precision for voltage, current 0.2%
Measurement precision for active energy (kWh,.../5 A) Class 0.5S

Inputs and outputs
Digital output 1
Pulse output •

Effective value measurement – instantaneous values, e.g.:
Current, voltage, frequency •
Active, reactive and apparent power •
Power factor •

Energy measurement
Active, reactive and apparent power •
Rate conversion •

Acquisition of mean values, e.g.:
Voltage, current / actual and maximum •
Active, reactive and apparent power / actual and maximum •
Frequency / actual and maximum •

Measurement of the voltage quality
Harmonics per order/current and voltage 1. – 15.
Distortion factor THD-U/THD-I in % •

Interface/protocol
RS485/Modbus RTU •

Measured voltage input
4 each
Overvoltage category 300 V CAT III
Measured range, voltage L-N, AC (without transformer) 0 ... 300 Vrms
Measured range, voltage L-L, AC (without transformer) 0 ... 425 Vrms
Frequency measuring range 45 ... 65 Hz
Sampling frequency per channel (50/60 Hz) 8 kHz
Measurement in quadrants 4

Networks
TN, TT

Measured current input
3 each
Rated current 1 / 5 A
Overvoltage category 300 V CAT II
Sampling frequency 8 kHz

Mechanical properties
Net weight (with attached connectors) Approx. 250 g
Device dimensions in mm (H x W x D) 96 x 96 x 48
Protection class per EN 60529 Front IP40 / rear IP20
Assembly per IEC EN 60999-1/DIN EN 50022 Front panel installation

Ambient conditions
Temperature range, Operation K55 (-10 ... +55°C)

GridVis-Basic software •

For detailed technical information, please refer to the operating instructions and the Modbus address list at www.janitza.com

* = included
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Sales partner

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