

MEASUREMENT TECHNOLOGY FOR EFFICIENT SYSTEMS

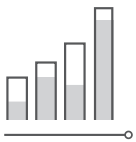
MANUFACTURING INDUSTRY

Brief information

Janitza®

EFFICIENT PRODUCTION PLANTS

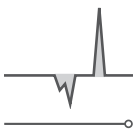
To simultaneously increase energy efficiency and decrease costs: that is a goal pursued by all successful companies. Comprehensive measurement technology plays a central role in achieving it. It supports companies in monitoring and controlling their energy consumption, ensuring a more cost-effective and secure energy supply.



INCREASE ENERGY EFFICIENCY, REDUCE CO₂ EMISSIONS

More efficient systems mean lower operational costs and a reduced environmental impact for the company. All of this helps to comply with increasingly strict statutory requirements, such as the Energy Efficiency Act.

- Monitor and analyze energy consumption
- Identify and improve inefficient processes
- Detailed machine performance analyses for reliable energy efficiency reports
- Seamless integration into an energy management system, e.g. pursuant to ISO 50001



GUARANTEEING SECURITY OF SUPPLY, AVOIDING PRODUCTION DOWNTIME

Companies ensure a secure energy supply by monitoring their power quality in accordance with the relevant standards. This monitoring and analysis of balance currents also enables the state of machines and systems to be assessed.

- Avoid unscheduled maintenance and production downtime
- Keep detailed records for power quality analysis
- Comply with relevant standards, such as DIN EN 61000-2-4
- Record and analyze improvements and negative changes in the energy supply



AVOID LOAD PEAKS, REDUCE COSTS

Intelligent load management means intelligent control of energyflows. This means that companies can reduce their load peaks and energy costs, save resources, and guarantee the stability of their mains supply.

- Avoid overloading
- Ensure even distribution
- Significantly reduce grid connection costs
- Use energy distribution systems more efficiently
- Using renewable energy, such as photovoltaics, is more efficient and more profitable.

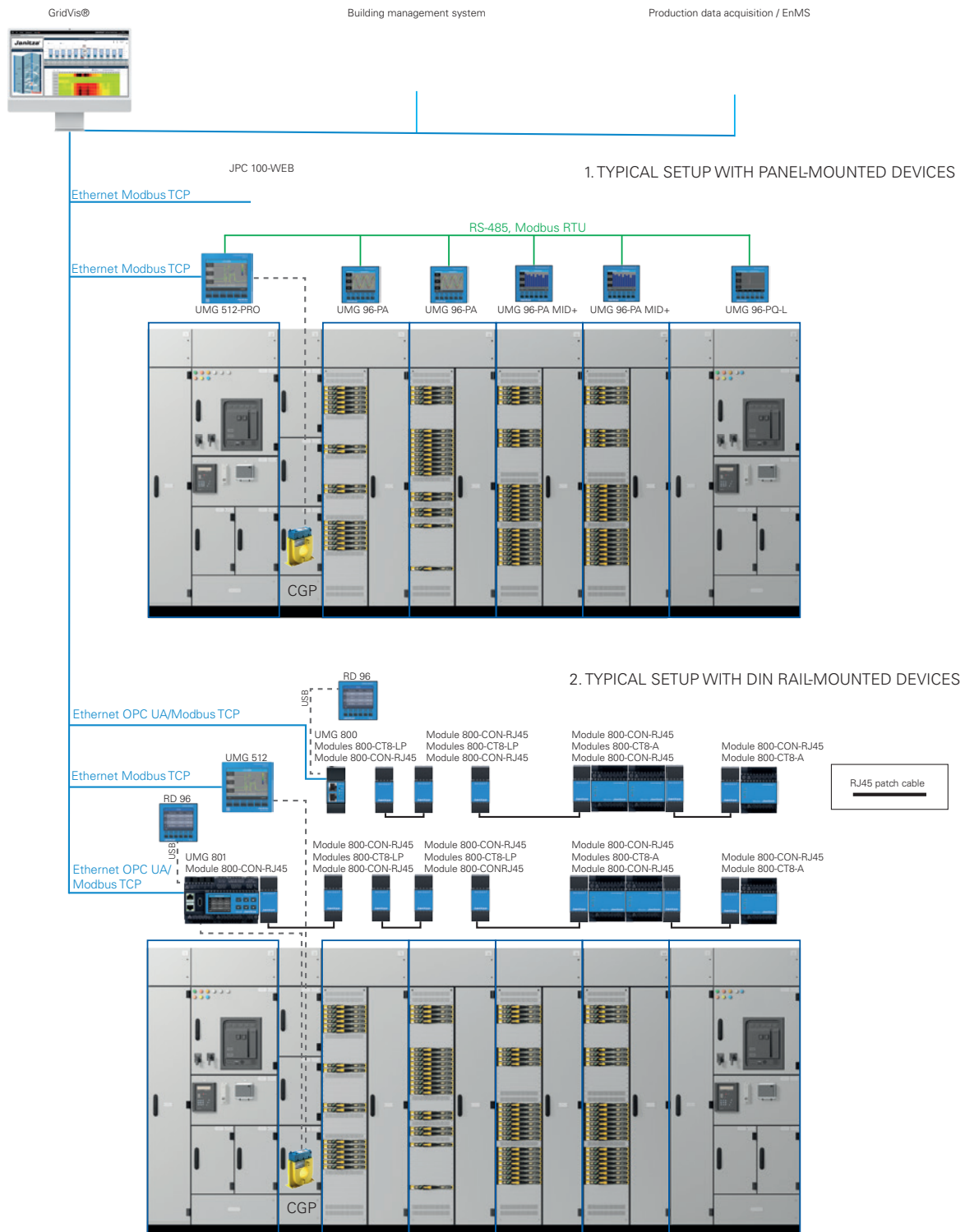


INCREASING FIRE PROTECTION AND INSTALLATION PROTECTION

A comprehensive residual current monitoring system monitors and logs the functionality of production facilities. This allows fires and failures to be detected and prevented before they occur, thus ensuring operational safety.

- Reduce downtime with effective fault localization
- Improve power supply availability
- Minimize unscheduled stoppages and production downtime.
- Manual isolation testing in accordance with DGUV V3 can be avoided with constant monitoring, if certain requirements are met.
- The remaining part of the test in accordance with DGUV V3 can be carried out without a break in production while the systems are in operation.

10. *Journal of the American Medical Association*, 2000; 283: 2689-2693.



Comprehensive measurement with Janitza measurement devices

MEASUREMENT TECHNOLOGY REQUIREMENTS

The right energy measurement technology in the manufacturing industry monitors and controls energy consumption, and ensures a safe and reliable energy supply.

Janitza offers specific products for every application, to guarantee the best power and safety of your energy supply.

THE CHALLENGE OF RENEWABLE ENERGIES

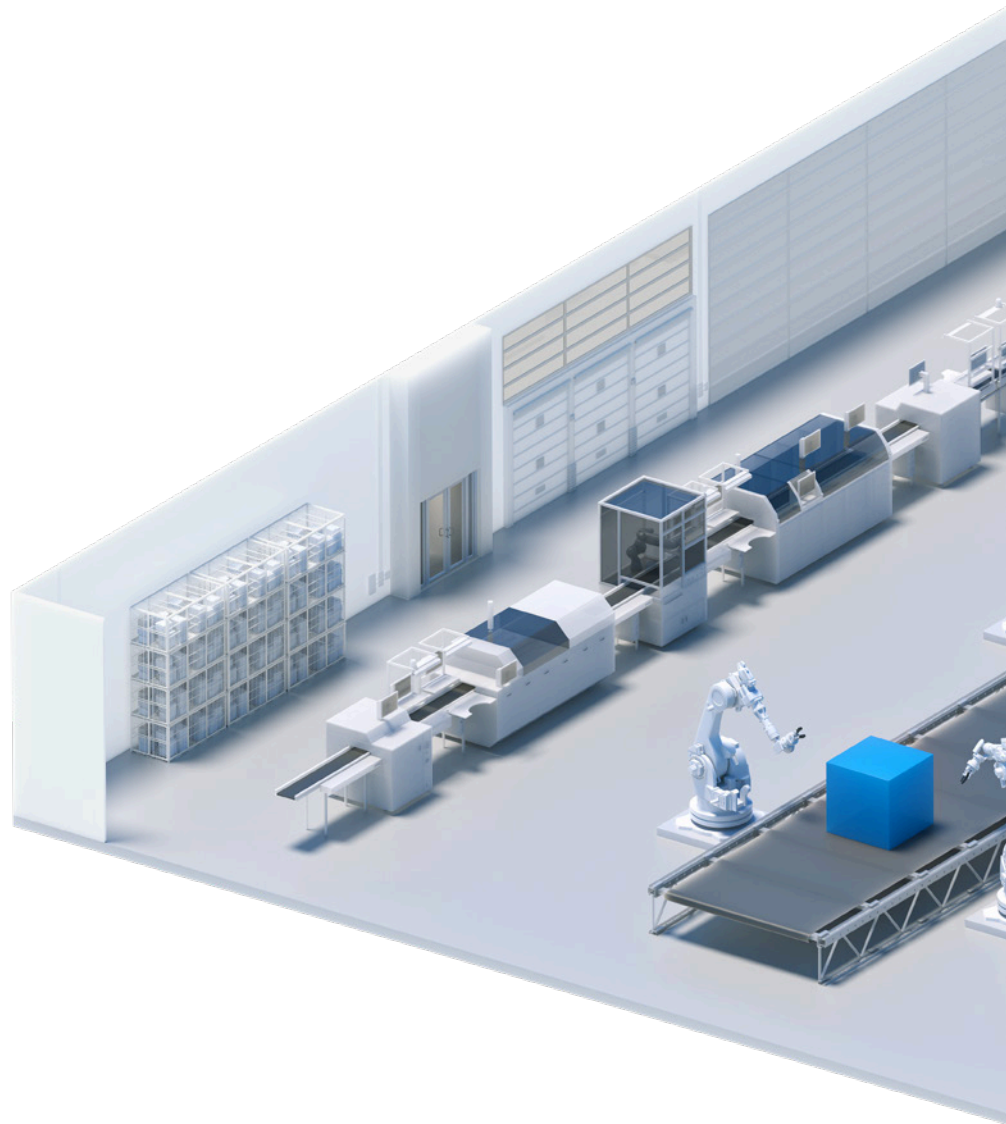
- Management of distributed energy production (e.g. photovoltaics)
- Controlled integration of new technologies (e.g. e-charging stations, battery storage systems)

AVAILABILITY

- Minimization of interruptions and downtime
- Faster fault analysis

SYSTEM INTEGRATION

- Simple expansion of the system, to accommodate additional measurement points
- Integration of existing measuring devices from other manufacturers and of different types

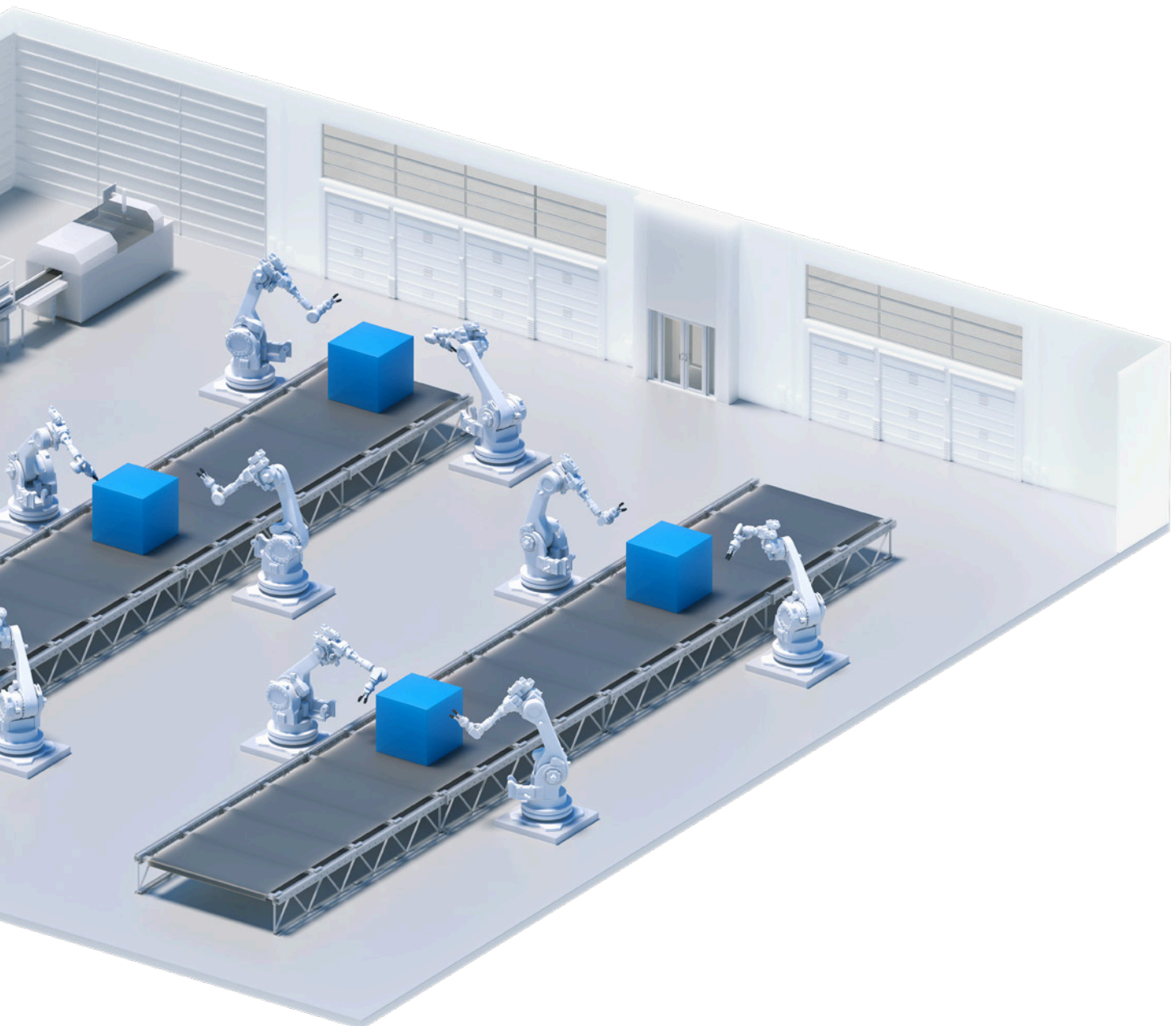


FULL TRANSPARENCY DOWN TO MACHINE LEVEL

- All consumable media can be integrated into energy management (water, gas, heat, oil, etc.)
- Measurement data recording via multiple communication channels

FULFILMENT OF STATUTORY REQUIREMENTS

- Energy management pursuant to DIN EN ISO 50001
- Proof of power quality pursuant to relevant standards
- Compliance with the Energy Efficiency Act



JANITZA SOLUTIONS FOR INDUSTRIAL COMPANIES



Part number: 5217003 48 ... 110 V AC / 24 ... 150 V DC*
5217011 95 ... 240 V AC / 80 ... 300 V DC*

UMG 512

CLASS A-CERTIFIED POWER QUALITY ANALYZER

- Class A-certified according to IEC 61000-4-30
- Standard-compliant monitoring, e.g. 50160 and 61000-2-4
- Holistic appraisal of power quality, energy consumption and total residual current
- Monitoring and central storage of all relevant electrical energy and network data
- Integration via Ethernet, master function for Modbus RTU



Part number: 5231003 External 24 V DC, PELV*

UMG 801

EXPANDABLE MODULAR NETWORK ANALYZER

- Continuous power quality monitoring pursuant to EN 50160 and EN 61000-2-4
- Own device homepage
- Modular expandability to max. 22 three-phase current measuring devices, including neutral conductor + 4 multifunctional channels (RCM/temperature)
- Integration via Ethernet (OPC UA and Modbus TCP), master function for Modbus RTU
- Low power module variants possible



Part number: 5236021 (Class S) 90 ... 277 V AC / 90 ... 250 V DC*
5236022 (Class S) 24 ... 90 V AC / 24 ... 90 V DC*

UMG 96 PQ-L

MODULARLY EXPANDABLE NETWORK ANALYZER

- Comprehensive measurement of power quality, residual current and temperature
- Class S certified according to IEC 61000-4-30 (activation)
- Comprehensive transparency of power quality at all levels
- Display of full-wave events directly on the color display
- Retrofittable module and firmware packages
- Low-power variants with direct operation of passive Rogowski coils, as well as variants for IT networks, are available



Part number: 5232004 90 ... 277 V AC / 90 ... 250 V DC*

UMG 96-PA-MID+

MODULARLY EXPANDABLE NETWORK ANALYZER

- MID compliant: Tamper-proof and legally valid, incl. certified meter reading cycle
- Recording, billing and cost center allocation of rentals or demarcation of third-party consumers
- Residual current detection and calibration-compliant measurement possible on one device (add-on module)
- Temperature measurement (add-on module)
- Ethernet, master function for Modbus RTU (add-on module)

*Supply voltage

These products represent only a selection. For a full overview of our measurement technology, please visit www.janitza.com or contact us.



Part number: 5238001 (UL) External 24 V DC, PELV*
5238002 External 24 V DC, PELV*

UMG 800 – MODULAR AND SCALABLE ENERGY ANALYZER

- Transparency of costs down to the machine level
- Compact basic device includes 2 sub-units with the option of expansion units with 1-4 sub-units – perfect as a retrofit solution
- Expandable by up to 12 + 1 modules or up to 96 current measurement inputs
- Integrated web server for simple commissioning, configuration and monitoring
- OPC UA, RS485, Modbus TCP/IP Gateway
- Cost effective energy management system expansion, e.g. pursuant to ISO 50001

GridVis® – POWER GRID MONITORING SOFTWARE

Today, manufacturing companies face numerous challenges. The power grid monitoring software GridVis® helps to tackle these head-on.

With numerous functions for the visualization and evaluation of your energy data, you are provided with an overview of all key information at all times. Standardized reports comply with numerous standards, thus making both documentation and analysis easier.

This not only ensures energy management that complies with standards and a secure power supply, but also significantly reduces your energy costs.



ADVANTAGES

ACCOUNTABILITY

EN 50160 Power quality report

SAFETY

alarm management, limit value monitoring

ENERGY MANAGEMENT

pursuant to DIN ISO 50001, KPIs, contract management

CONNECTIVITY

OPC UA, CSV, REST API, M-Bus, Modbus

VISUALIZATION & DOCUMENTATION

report editor, dashboards, reporting

NETWORK ANALYSIS & EVALUATION

event browser, utilization and high availability reports, RCM reporting

ABOUT JANITZA

Janitza is a German company that manufactures energy measurement technology to improve energy efficiency and ensure security of supply. The company offers made-to-measure solutions for customers from a range of industrial sectors, such as data centers, the manufacturing industry, construction & infrastructure, energy supply and renewable energies.

OUR PORTFOLIO

The Janitza portfolio consists of innovative measurement devices and perfectly matched GridVis® power grid monitoring software, complemented by high-quality components. Janitza customers worldwide benefit from solutions for energy data management, power quality monitoring, load management and residual current monitoring in a system environment – Made in Germany.

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for the manufacturing industry:

