

Expandable modular network analyzer – UMG 801



ALL-IN-ONE
NETWORK ANALYZER

FLEXIBLE CONNECTION

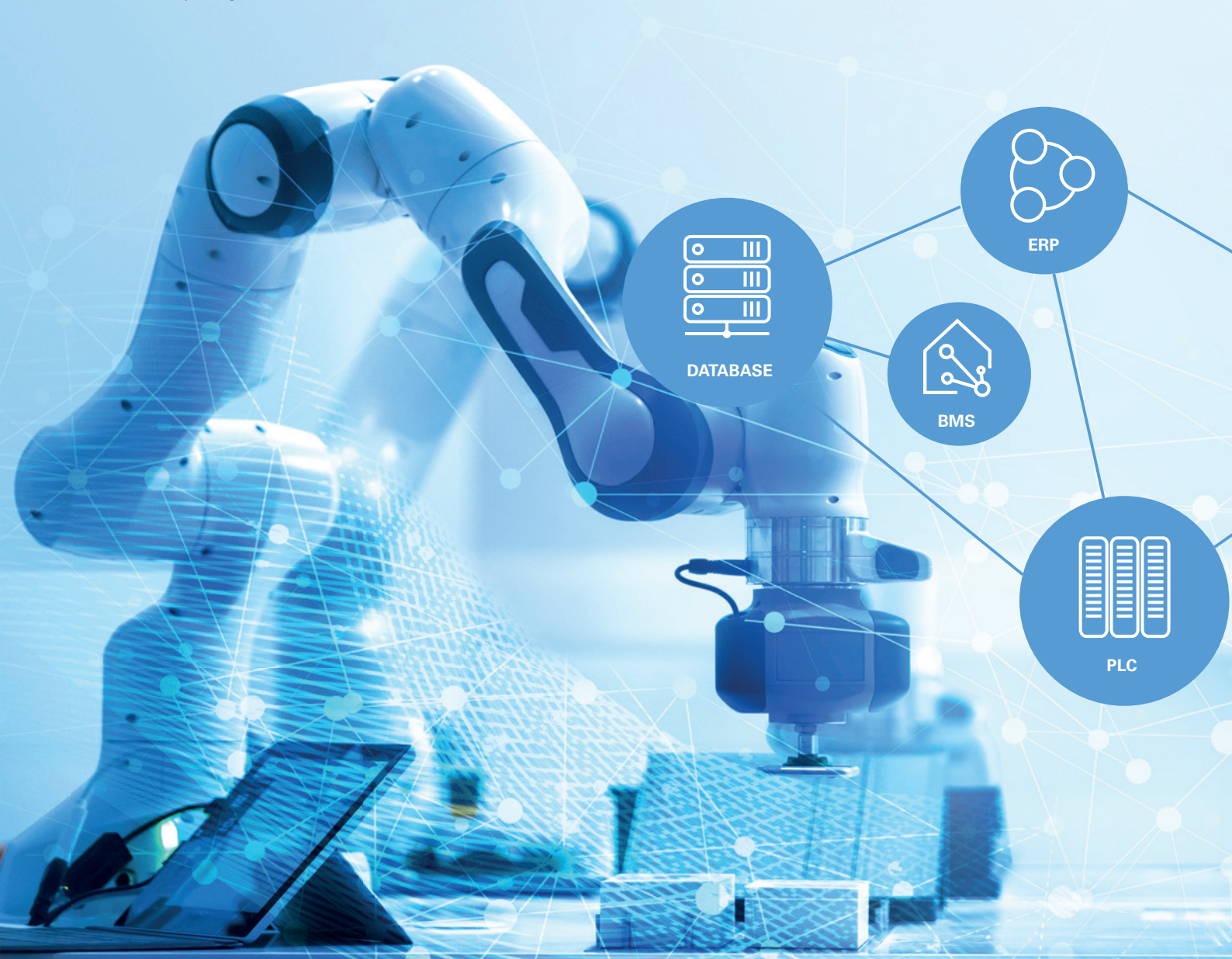
Transparency across all data levels is key to a modern company's success. Data from all areas of the company must be collected and consolidated, for example, in order to optimize planning for production processes, establish safety measures to protect systems and machinery and save costs.

Networking previously isolated areas – from machine level to ERP systems and building management systems – is very complex because it requires various standards, interfaces and communication capabilities to be coordinated.

The UMG 801 modular network analyzer provides a variety of communication interfaces and protocols (e.g. OPC UA) for standardized and manufacturer-independent data transmission to higher-level systems, thus eliminating the need for costly integration.

The UMG 801 covers all the needs of an energy management system (pursuant to ISO 50001) too. It provides transparency with respect to energy consumption and energy costs at all measurement levels. Critical deviations in power quality and residual currents (RCM) can thus be detected.

The UMG 801 can be expanded using stackable, easy-to-integrate modules with up to 92 current measuring channels and up to 144 digital inputs. The easy-to-connect plug-in concept (Plug & Play) reduces wiring work and an integrated bus system connects the basic device with the modules. Seamless power supply and data transmission are thus guaranteed.



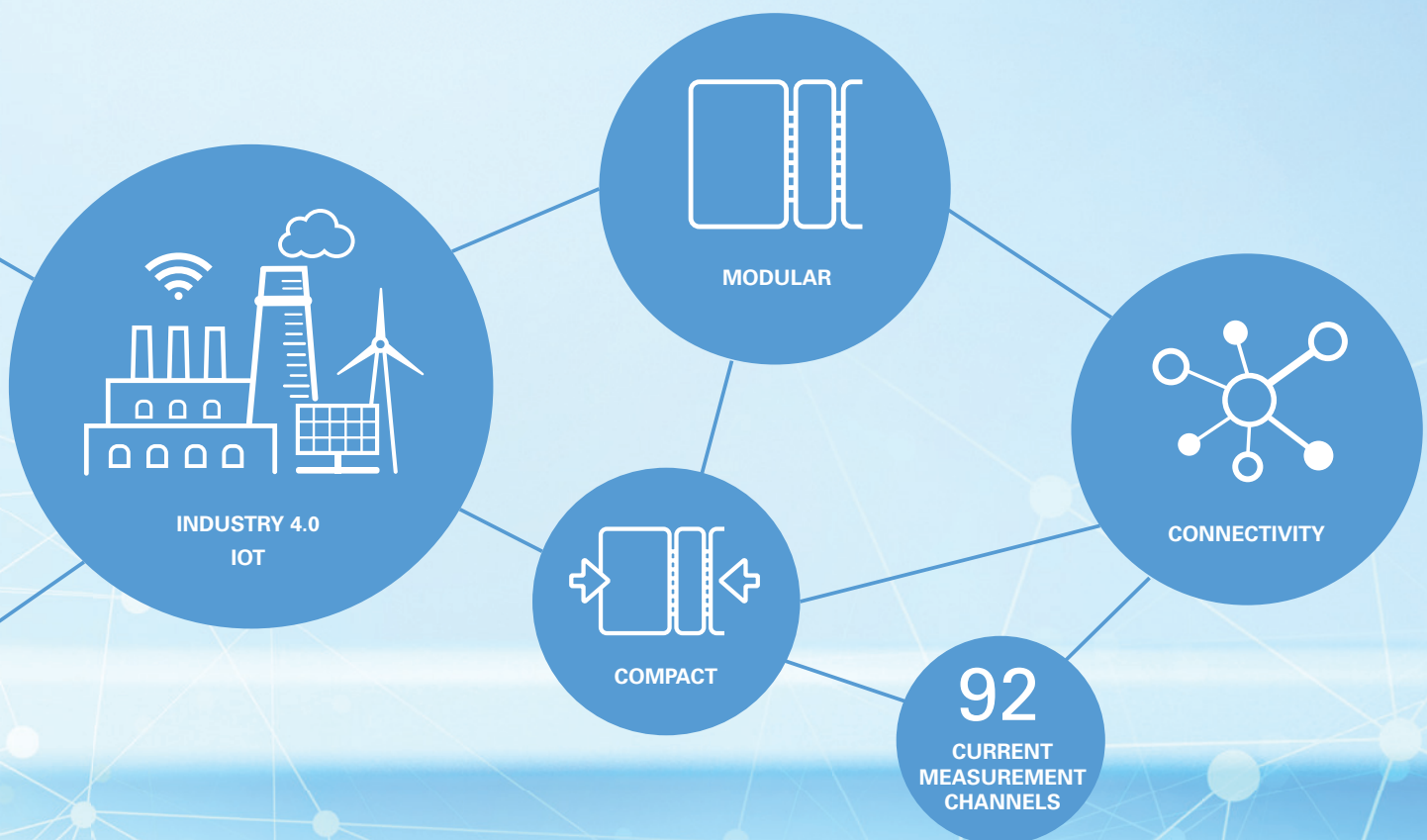
HIGH-AVAILABILITY DATA

The networking options offered by the UMG 801 maximize its benefits and minimize the work required for integration into higher-level systems. The device is equipped with two simultaneously or separately usable Ethernet interfaces for direct wiring and data transmission. When used separately, complex measurement device and module topologies can be implemented. The UMG 801 also has an RS-485 interface for reading the collected data or designing a measurement topology.

With the OPC UA standard, you also benefit from a software architecture with integrated security mechanisms. This makes consolidating data from all corporate divisions much easier, which is another milestone on the road to implementing Industry 4.0.

Data access made easy

- OPC UA, Modbus and standardized data formats such as PQDiff and Comtrade
- Modbus TCP/IP whitelisting to prevent unauthorized access
- Configuration of the entire measuring system via OPC UA
- Gateway functionality to connect additional devices
- Flexible application-based use of 4 multifunction channels for RCM, temperature or current measurement



AT A GLANCE



UMG 801
Part no.: 5231003



800-CT8-A module
Part no.: 5231230

CONNECTIVITY

- 8 current measuring channels with 1/5 A inputs
- 4 multifunction channels, configurable as RCM, a temperature measuring channel or current measuring channels via mA signals
- Two groups with four digital IOs each (tariff switching and pulse input, logical modes)
- Analog output (direct current 0/4–20 mA)
- 2 Ethernet interfaces enabling simultaneous or separate use

HIGH ACCURACY

- High sampling frequency (51.2 kHz voltage)
- 1024 samples for voltage measurement
- High measuring accuracy on all channels

CONVENIENCE

- Integrated web server on basic device for easy initial configuration
- Easy-to-use extreme value capture functionality for the most important measured variables, such as conductor currents and voltages

SPACE-SAVING

- Requires 4 sub-units for 8 additional current measuring channels
- Connection of conventional current transformers
- Perfectly designed for existing or new installations
- Requires 1 module slot

UMG 801 modules



800-CT8-LP module
Part no.: 5231234

LOW SPACE REQUIREMENT

- Only 1 sub-unit for 8 additional low-power current measuring channels

SAFE AND INEXPENSIVE

- Connection of low-power current transformers
- Higher levels of occupational health and safety during installation
- Price saving on low-power current transformers compared to conventional transformers
- Requires 1 module slot



Module 800-CON-RJ45 800-CON module
Part no.: 5231242 Part no.: 5231210

LOW SPACE REQUIREMENT

- 800-CON module only 1 sub-unit per module
- 800-CON-RJ45 module only 2 sub-units per module

MEASUREMENT POINT BRIDGING

- 2 modules connect remote measurement points with each other
- Bridge distances of up to 100 m using cables

CONNECTIVITY

- 800-CON-RJ45 modules have an RJ45 interface and can be connected via a standardized cable
- 800-CON modules are connected via shield clamps to a pair-stranded, shielded data cable
- Requires no module slot



800-DI14 module
Part no.: 5231214

LOW SPACE REQUIREMENT

- Only 1 sub-unit for 14 additional digital inputs
- Captures digital status information (on/off, open/closed, etc.)
- Requires 1 module slot

COMPACT AND ECONOMICAL MEASUREMENT POINT EXPANSION

WHAT ARE MODULE SLOTS?

There is a limit to the number of modules that can be connected to a UMG 801. The basic device has a total of 10 virtual slots for modules. The current measuring modules and expansion module for digital inputs only take up a single virtual slot.

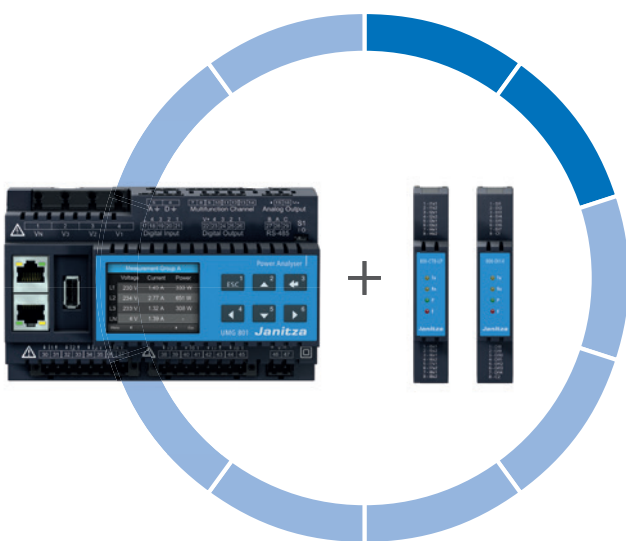
This means you can connect a maximum of 10 current measuring modules to the basic device in order to expand it by an additional 80 current measuring channels, for example. All modules can be combined with each other as required until all 10 module slots are in use. Modules that do not require any module slots can be connected as often as you like.

BENEFITS FOR LOW-POWER CURRENT TRANSFORMERS

Low-power current transformers have an output signal of 333 mV. They do not need to be short-circuited and are safe to install from an occupational health and safety perspective. The fact, there are no transformer disconnect terminals and the slim design of the module saves you up to 1.4 m/55,12 inch of space on the DIN rail. Low-power current transformers are also less expensive and there are absolutely no costs involved for transformer disconnect terminals.

- Saves up to 1.4 m/55,12 inch of space when fully expanded
- Cost saving on low-power current transformers compared to conventional transformers
- Potential cost savings of up to 40 %
- No need for transformer disconnect terminals
- Less work required for cabling and connection
- Increased occupational health and safety during installation

EXAMPLES OF MODULE COMBINATIONS



EXAMPLE 1

1 x 800-CT8-LP + 1 x 800-DI14 = 2 module slots required

EXAMPLE 2

2 x 800-DI14
+ 6 x 800-CT8-A
+ 2 x 800-CON*
= 8 module slots



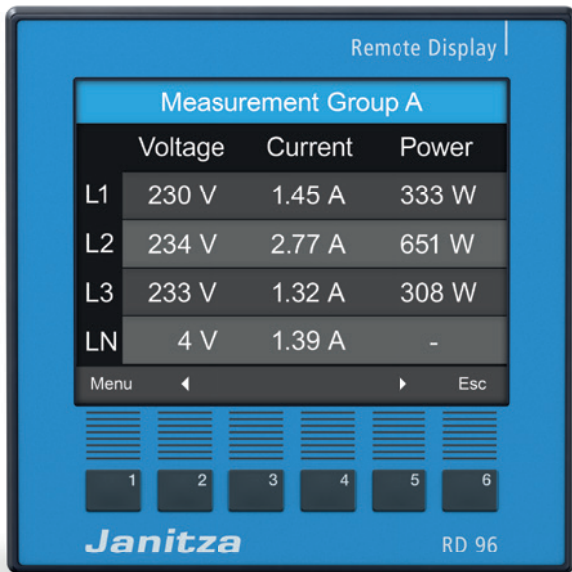
EXAMPLE 3

7 x 800-DI14
+ 3 x 800-CT8-A
= 10 module slots



*800-CON does not require a module slot

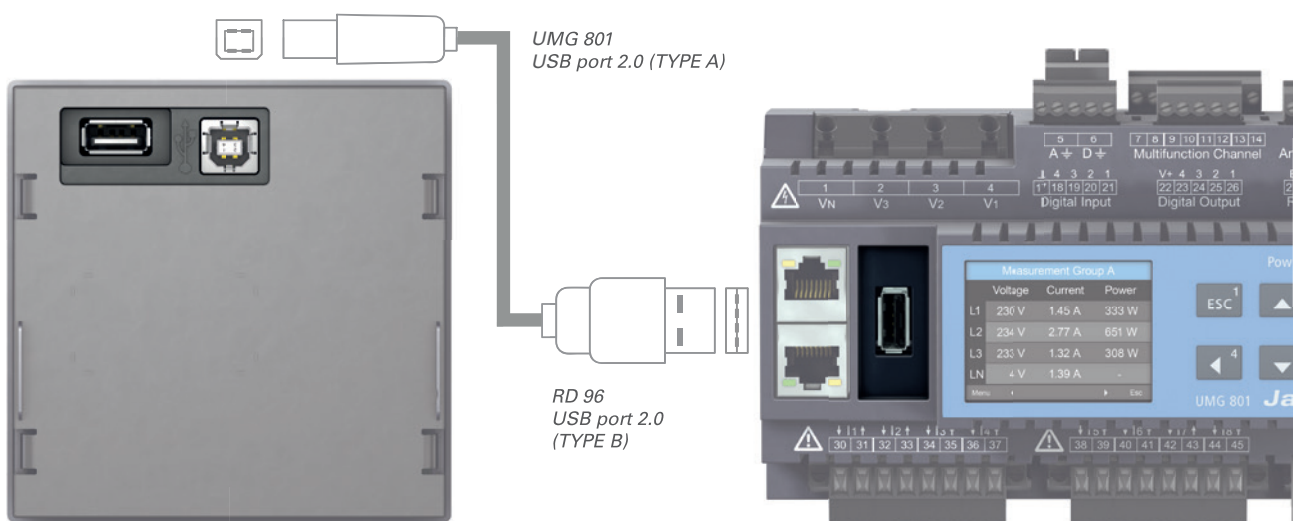
OVERVIEW DEVICE DATA WITH REMOTE DISPLAY



With the RD 96 remote display, the measured values from the UMG 801 and its connected modules can be seen directly on the switchboard cabinet door – without opening the switchboard cabinet. In addition, the UMG 801 and its modules can be configured via the display.

- Design: 96 x 96 mm front panel
- Simple operation via buttons
- Connection via USB interface
- Mirroring of the UMG 801 display on the RD 96
- All displays including views of the modules are available
- Full operation including configuration of the UMG 801 as well as the modules

RD 96
Part no.: 5231212



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Sales partner

Part no.: 3303738 • Doc no.: 2.500.196.8 • Dated 10/2023 • Subject to technical alterations.
The latest version of the brochure is available at www.janitza.com.