Measuring systems for the safe and economical operation of medical facilities

PQ PLUS GmbH

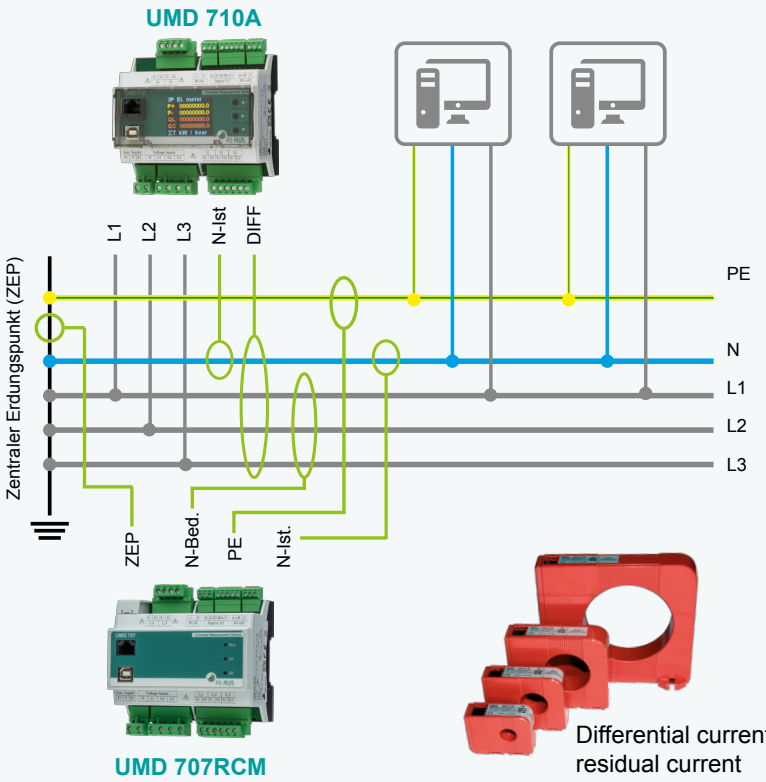
Our solutions for medical technology

The measuring system for all medical technology requirements

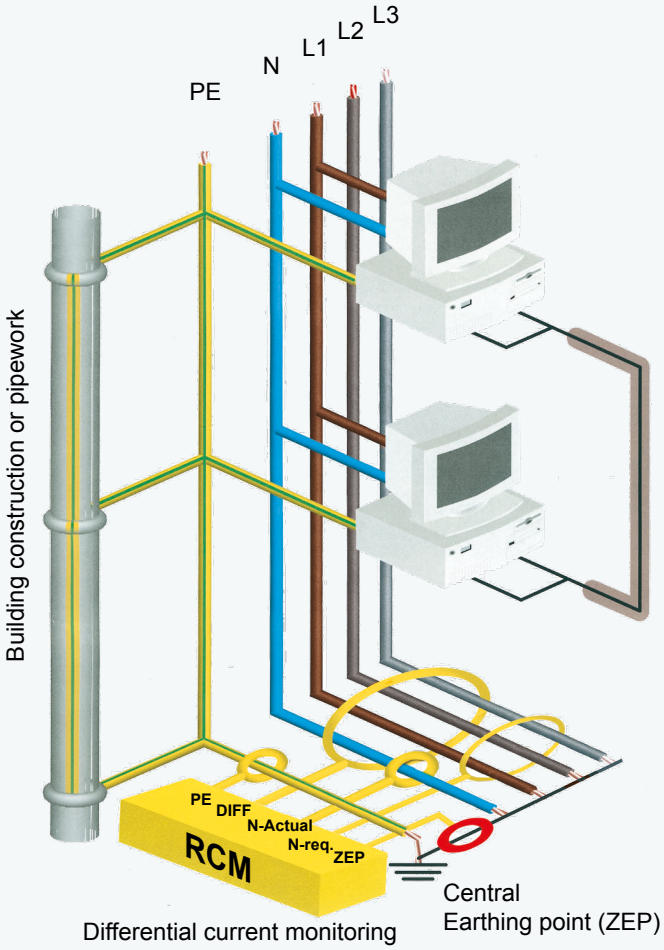
All requirements of the modern medical technology can be met with our large selection of different energy measurement devices. Integration into existing systems is possible at any time thanks to the open, standardised interfaces. PQ Plus has the right solution for all tasks, whether you need to monitor power quality, classic consumption measurement, or all required differential currents.

The TN-S system

The basic prerequisite for the safe operation of IT, machines, and interlinked systems

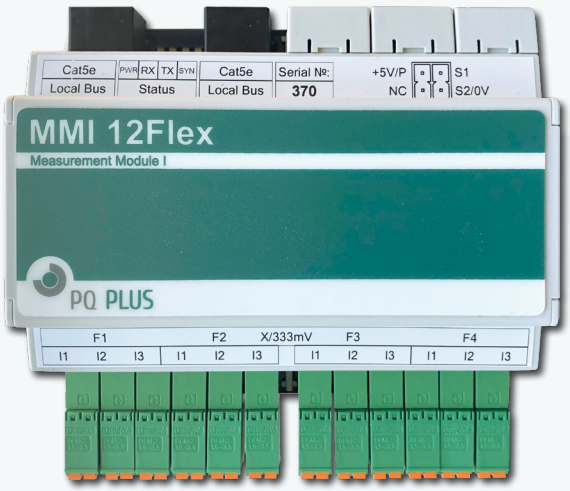


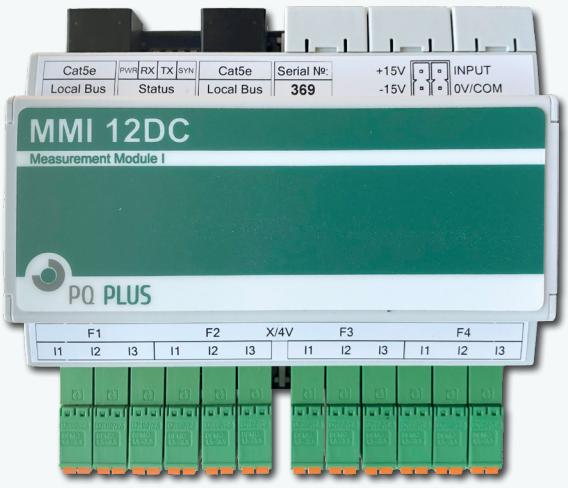
Differential current/ residual current transformer



Differential current monitoring or power monitoring

Suitable metrological equipment for medical facilities



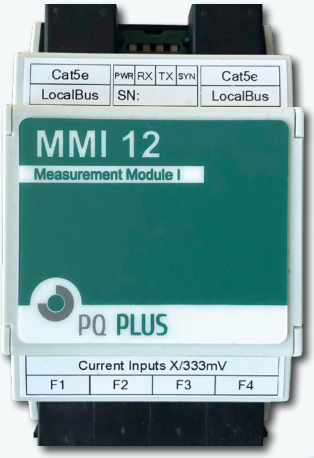


MMI 12Flex

The MMI 12Flex is a module for recording up to 12 operating currents of individual outlets via flexible Rogowski coils. Single-phase or three-phase loads with or without neutral conductor current can be recorded here. This can be configured using the free ENVIS software. The Rogowski coils are connected via 4-pin plug-in connectors. The power supply of +5 V_{DC} for the Rogowski coils is integrated into the module.

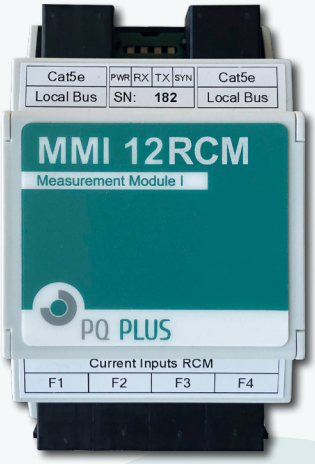
MMI 12DC

The MMI 12DC is a module for recording up to12 direct currents of individual outlets such as UPS systems. The Hall sensors or direct current transformers are connected via 4-pin plug-in connectors. The secondary signal of the transformers and sensors must be ± 4 V. The power supply of ± 15 VDC for the connected Hall sensors is integrated into the module.



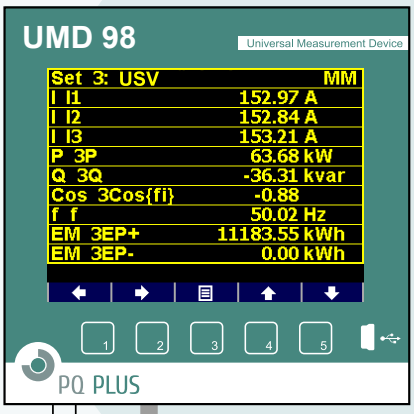
MMI 12

The MMI 12 is a module for recording up to 12 operating currents of individual outlets. Single-phase or three-phase loads with or without neutral conductor current can be recorded here. This can be configured using the free ENVIS software. The 333 mV transformers are connected to the MMI 12 using plug-in connectors.



MMI 12RCM

The MMI 12RCM is a module for the continuous recording of up to 12 differential currents. The differential current transformers are connected to the MMI 12RCM using plug-in connectors. Permanent differential current monitoring ensures a high level of personal and system protection. This also reduces the time and effort required for DGUV V3 inspections.

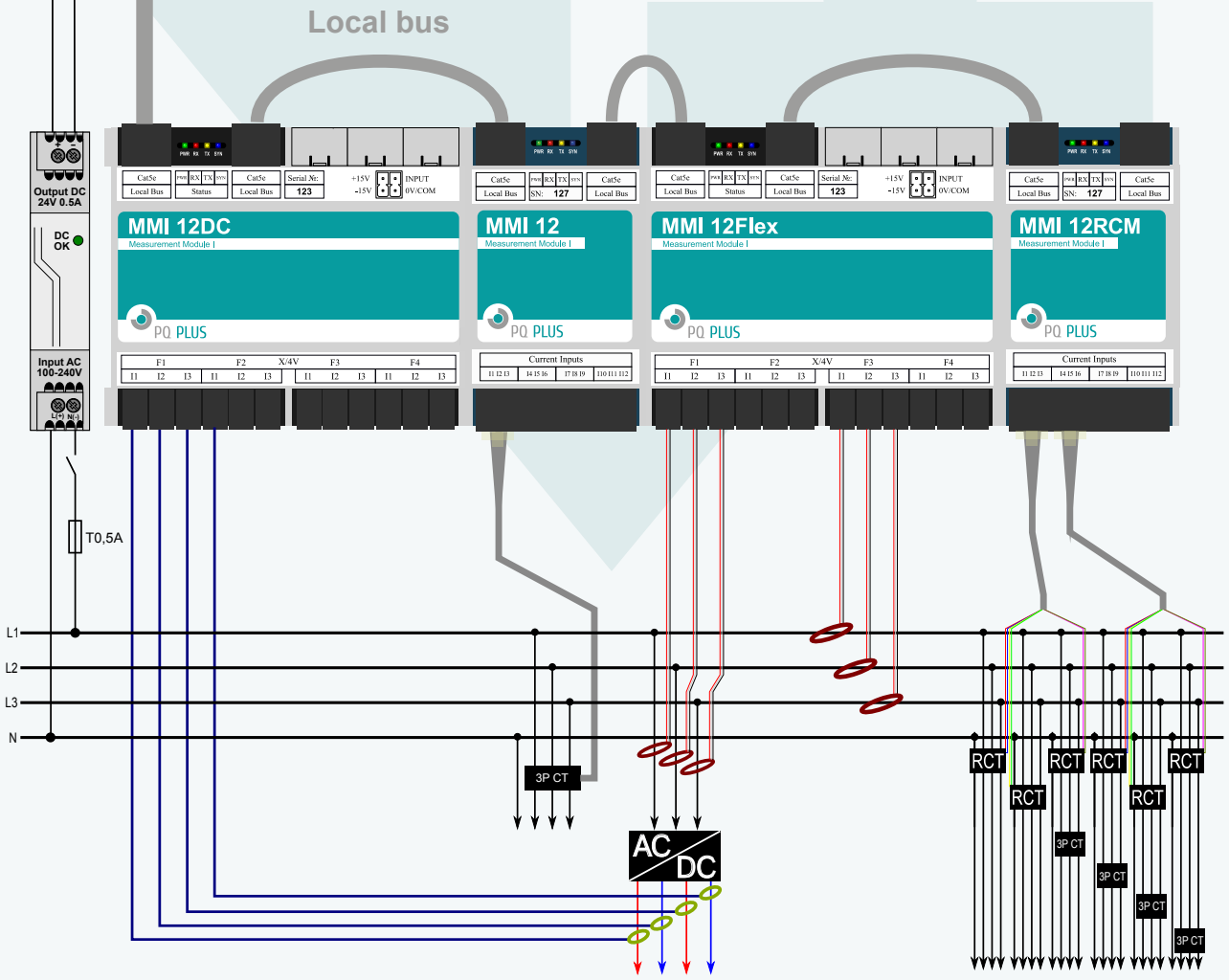


Modular measurement technology on the UMD 98

Many of our grid analysers, such as the UMD 98LB, can be used as a master. This means that the outgoing measured data are not only logged, but also shown on the UMD's display.

The various MMI modules are connected to each other via RJ45 cables, allowing the power modules to be installed where they are needed in the distribution board. The measured data are made available at the local bus interface.

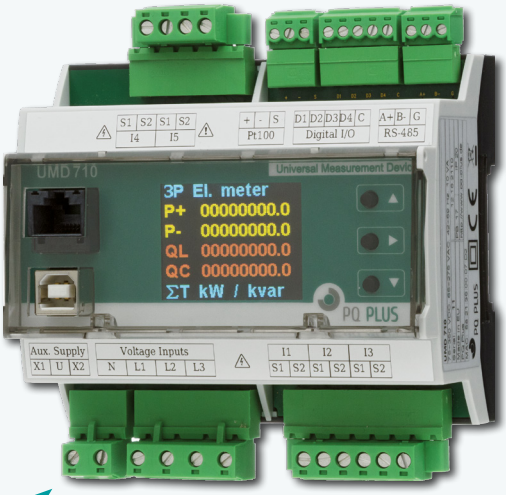
The UMDs record the measured values, save them, and visualise them via the display and the integrated web server. The UMD itself enables further measurement (e.g., infeed) via 1 / 5 A current transformers. Optionally, the power quality can be fully recorded and analysed in accordance with DIN EN 50160.



Recognising and recording electrical measured variables and differential currents. With the UMD 707RCM and UMD 710A universal measurement devices.

Key features UMD 710A

- Four-channel current measurement
- Measuring input for differential current
- Measuring input for Pt100 temperature sensor
- Mains quality in accordance with EN 50160 and EN 61000-2-4, among others
- Class A in accordance with EN 61000-4-30
- Harmonics up to the 128th harmonic
- Optional supraharmonic 2 kHz to 9 kHz
- Oscilloscope functions for current and voltage
- Trigger signals for limit value events
- Modbus master function
- 512 MB flash memory
- Data logger – also for measured values of the slaves
- Integrated web server for your live measured values
- 4 digital inputs/outputs
- Ethernet (Modbus TCP/IP)
- RS485 (Modbus RTU)
- Front USB connection



Advantages:

- The availability of the system is significantly improved by the permanent monitoring of the power supply system
- Extensions to the infrastructure can be planned precisely
- Bottlenecks are recognised at an early stage
- The existing infrastructure is utilised effectively
- The energy requirement is optimised
- Costs are reduced
- Continuous monitoring of residual currents means that insulation measurement in accordance with DGUV regulation 3 is no longer necessary

The UMD 707RCM monitors your residual currents, the power quality in accordance with EN 50160 and EN 61000-2-4 and the harmonics up to the 128th harmonic (optionally also the supraharmonics from 2 kHz to 9 kHz) on 5 channels using appropriate differential current transformers.

An Ethernet interface, an RS485 interface, and a USB connection on the front are available as communication interfaces.

NEW

Request our new catalogue or browse its online version on our website.

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