



# ICPDAS EUROPE

Energy Monitoring

An abstract graphic consisting of a complex network of interconnected nodes and lines, resembling a molecular structure or a data network. The nodes are represented by circles of varying sizes, and the lines are thin, connecting the nodes in a web-like pattern. The overall color scheme is grayscale, with some nodes highlighted in a light gray.

Ideas for automation

# System overview

## Energy Monitoring

For a quick overview of all performance data.  
Easy operation and configuration via web server.

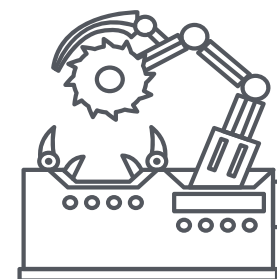
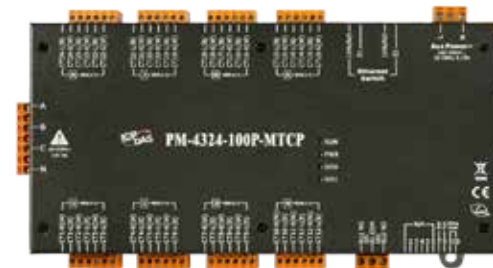
- ✓ Monitor energy consumption
- ✓ Identify main consumers
- ✓ Data Analysis & Reports
- ✓ Reduce peak loads
- ✓ Optimize failures & maintenance



>> PMC-5231



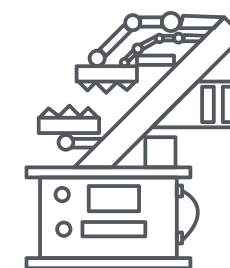
>> PM-4324



>> PM-3133



>> M-7017



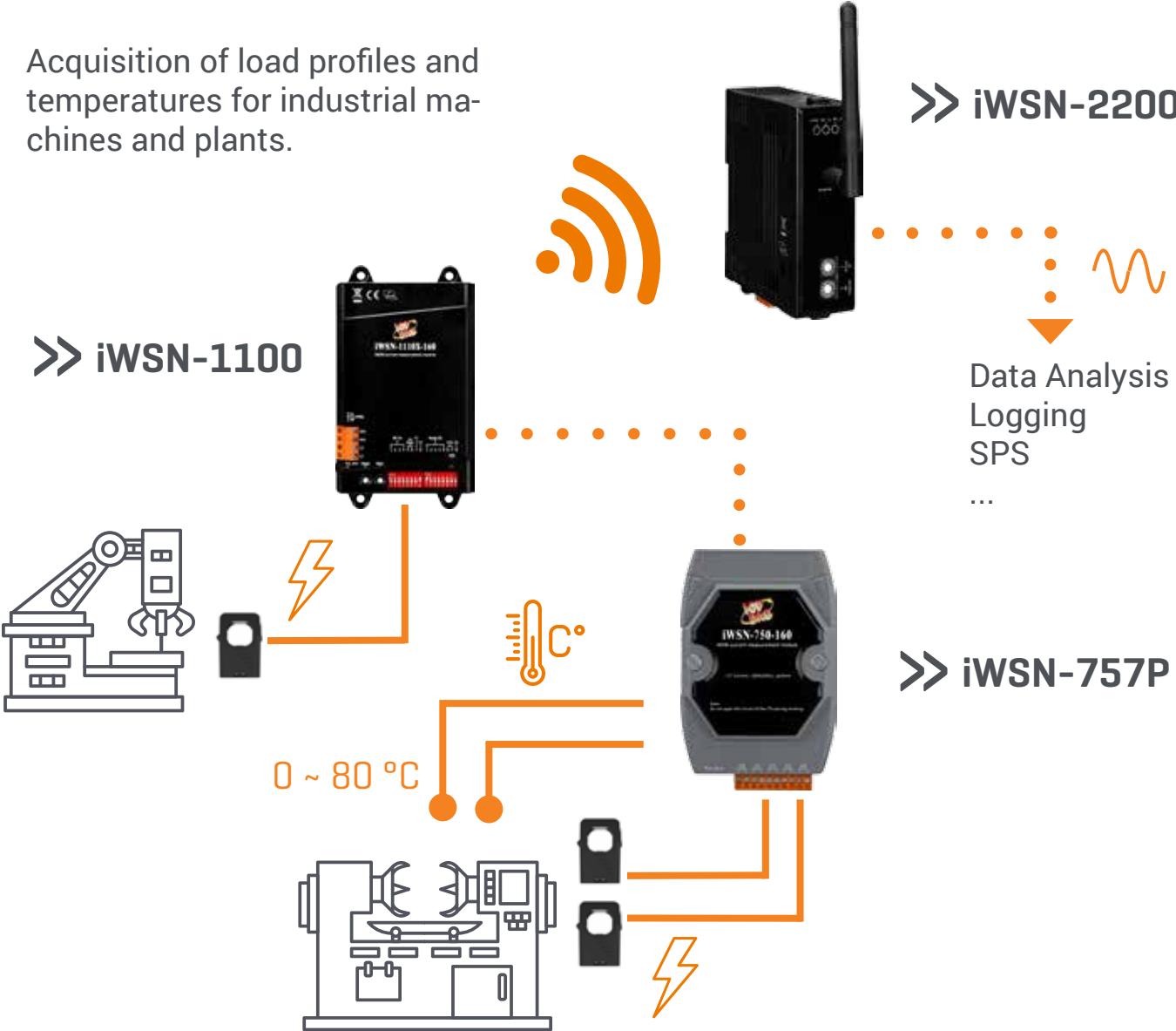
>> DNM-831I



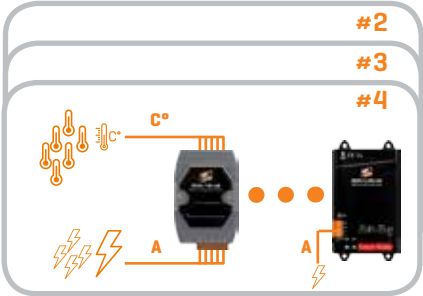
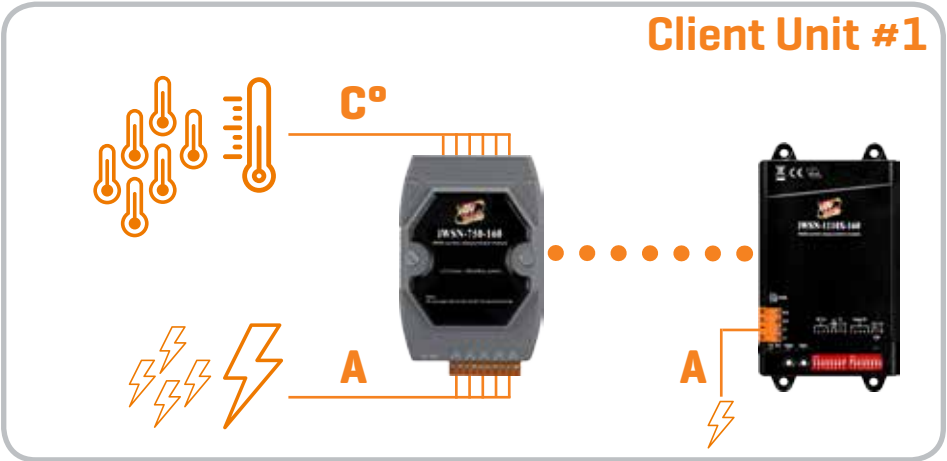
# System overview

## Wireless Energy Monitoring

Acquisition of load profiles and temperatures for industrial machines and plants.

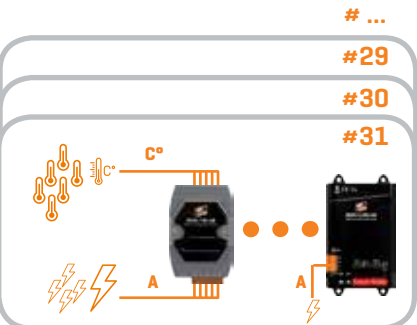
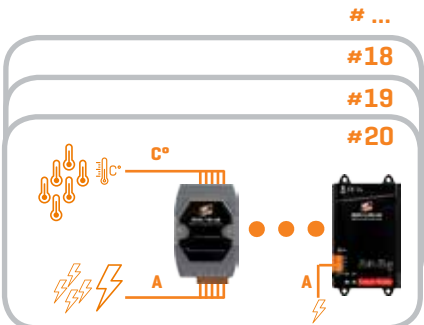
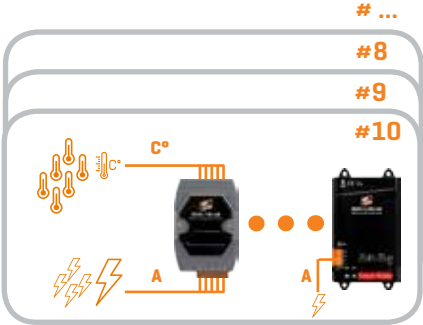


The system can be expanded to up to 31 client units. Per unit up to 7 temperature and 6 current measurements are possible.



**iWSN-2200**

The signals from the client units are transmitted wireless to the Wireless Concentrator.



# PMC und PMD Series

## Energy Monitoring System

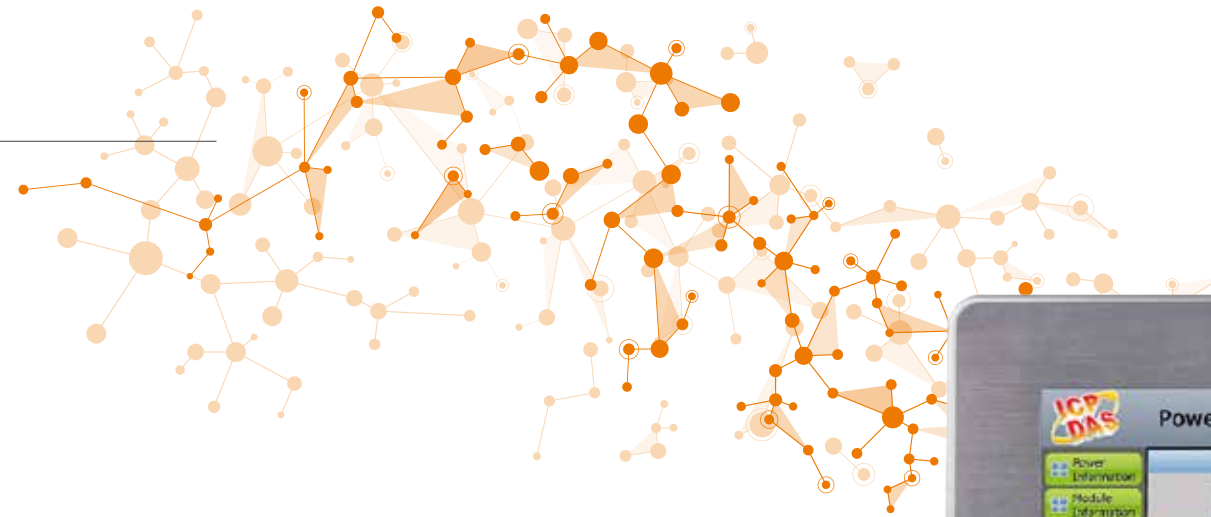


### PMC-5231 energy data logger

- simple operation via browser
- IF-THEN-ELSE Logic Editor
- Logging
- Monitoring & Analysis



The logged data can be visualized and analyzed via the web interface of the devices. Charts for real-time or historical evaluations are available for this purpose. With just a few clicks and without programming, all settings can be configured on the touch panel or via web server. This also includes the IF-THEN-ELSE engine, which is used to implement smaller control tasks directly on the data logger. Protocols such as ModbusTCP/RTU, SNMP, FTP and MQTT are supported for seamless integration into higher-level management systems.



### PMD Serie energy data logger with display

- 7" or 10.4" LCD Touch
- simple operation via browser
- IF-THEN-ELSE Logic Editor
- Logging
- Monitoring & Analysis



# PM Series

## Intelligent energy meters

For reliable measurement and continuous monitoring of electrical parameters in real time, ICPDAS-EUROPE offers the intelligent energy meters of the PM series. Measuring ranges from 60A to 2000A allow the user a wide range of applications. Cable conversion transformers or Rogowski coils are optionally included in the scope of delivery, which simplify retrofitting installations in particular.



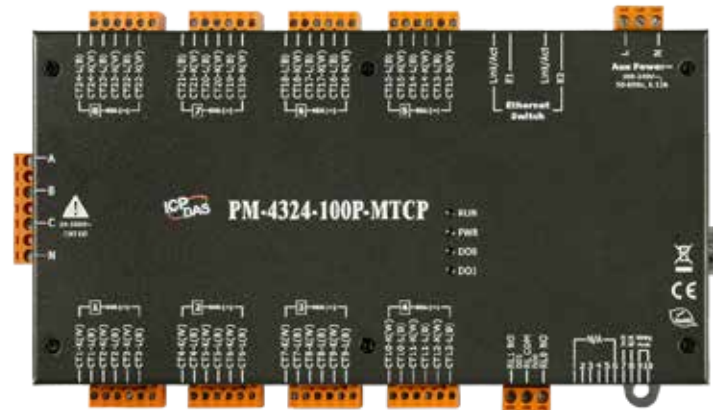
### PM-3000 energy meter

- 1-phase and 3-phases measurements
- RS-485, Ethernet und CANopen
- Measuring ranges from 60A to 2000A



### PM-4000 multi energy meter

- 24 1-phase or eight 3-phases measurements
- RS-485, Ethernet und CANopen
- Measurements from 60A to 2000A



### PM-2133D energy meter with display

- 3-phases measurements
- RS-485, ModbusRTU
- Measuring ranges from 60A to 400A





## DNM Series

### Intelligent energy meters

In many applications it is necessary to measure direct current, alternating current and voltage at the same time. The goal is effective monitoring and control of downstream processes. Examples can be found in the areas of material handling, e-mobility or renewable energies. With the DNM-831I-100V series ICPDAS-EUROPE has developed an ideal solution for this purpose.



#### **DNM-831I-100V** **voltage attenuator** **current transformer**



- 1x Current input ( $\pm 2000A$ )
- 1x Voltage input ( $\pm 100 VDC$ )
- 3000 VDC Isolation
- 4 kV ESD-Protection
- 3 kV Overvoltage protection



## uIBX Series

### Data archiving



#### **uIBX-250-BW** **data server**

- Microsoft® Windows 10
- PMC Dataserver Software
- MS SQL, MySQL, MariaDB, MS Access

# iWSN Product series

## Wireless Energy Monitoring



### iWSN-2200 wireless concentrator

- 433 MHz
- 16 RF Channels



### iWSN-1100 self powered wireless power meter

- wireless data transmission
- magnetic mounting
- 1x Power
- no external power supply necessary



### iWSN-757P self powered power meter

- optional extension module
- magnetic mounting
- 7x temperature
- 5x power
- No external energy supply necessary

With the wireless measuring devices from ICPDAS-EUROPE, temperature and energy data can be easily acquired and transmitted wirelessly. Thanks to the integrated energy harvesting module, no separate energy supply is necessary. Effort and costs for cabling are saved. Magnetic mounting further simplifies the installation of the devices.

## Accessories

### Cable conversion transformer



Cable conversion transformers in various designs for reliable current measurements. Due to the easy installation, the SCT series is also particularly suitable for retrofitting installations.



#### **SCT Serie** **current transformer @333mV**

- 10mm for up to 50A
- 16mm for up to 200A
- 24mm for up to 300A
- 36mm for up to 600A

## Accessories

### Rogowski signal amplifiers and coils



#### **PM-3000P** **energy meter**



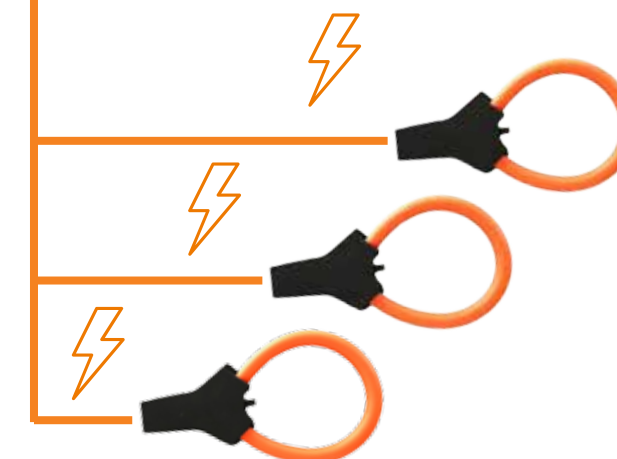
#### **RC-3PH-333** **3 phase rogowski integrator**

- 333mV Voltage output
- high measuring accuracy
- low power consumption



#### **RC Serie** **rogowski transformer**

- 1000A
- 36mm diameter
- 6mm coil cross section
- compact design
- simple installation







Ideas for automation

[www.icpdas-europe.com](http://www.icpdas-europe.com)

ICPDAS-EUROPE GmbH  
Mahdenstr. 3 | D-72768 Reutlingen