EN

ENERGY MONITORING

For applications in the field of industry 4.0
IoT and IIoT

IPF ELECTRONIC

High-End in High-Tech.

SCAN QR-CODE
AND READ FLYER DIGITALLY

ENERGY MONITORING – SIMPLE. DO. PLUG & PLAY

Constantly rising energy prices are visibly increasing cost pressure.
If you want to save energy and sustainably reduce costs, you need to know exactly which machines, systems and processes are responsible for particularly high consumption.
This is the only way to quickly identify potential savings and take targeted measures to secure and increase competitiveness.

With the ipf-Gateway, this is now as easy as can be - without complex conversions and high investment costs.

It has probably never been easier to implement and realize effective energy monitoring and end-to-end energy management in accordance with ISO-50001.
The ipf-Gateway is a manufacturer-independent platform, which, together with powerful visualization software, ensures a high level of compatibility with all hardware and IT systems currently on the market.

Thanks to simple connectivity, usability and scalability, with the ipf system solution Industry 4.0 / IoT and IIoT are now no longer buzzwords, but lived practice.
Also in your company.

IPF-GATEWAY. COMMUNICATIVE. FLEXIBLE.

The powerful ipf-Gateways with ARM-processor impress with their high connectivity and enable individual, continuous monitoring through the connection to a controller, the direct connection of up to six digital and four analog sensors or any number of sensors, e.g. via Modbus.

The operating system, which is easy to set up, is already "onboard", as is the web client solution, which processes the measurement data directly, makes it available and visualizes it via the dashboard.

ADVANTAGES AT A GLANCE	BY000002	BY000003
Processor	2 x ARM Cortex-A7 CPU 1 x Cortex-M4 CPU Cores	TI Sitara AM3358 32-Bit ARM Cortex-A8
Large internal memory	1GBD DDR3L RAM 4GB eMMC	1GBD DDR3L RAM 8GB eMMC
Numerous interfaces	100MbE USB2.0 Host USB2.0 Device CAN RS485 GPIO 4x analog input (4...20mA/0...10V) 6x digital IO's Back-Plane-Bus-Connector for AddOn-Module	100MbE USB2.0 Host USB2.0 Device CAN RS485 GPIO 2x analog input (4...20mA/0...10V) 2x digital IO's, 1x Relais no/nc 48V/0,5mA Back-Plane-Bus-Connector for AddOn-Module
Multiple protocols	Modbus CAN MQTT HTTP Cloud of Things OPC U/A DB/SQL	Modbus CAN MQTT HTTP Cloud of Things OPC U/A DB/SQL
Optional W-LAN module	802.11b/ g/ n.150 Mbits/s via Wifi stick	802.11b/ g/ n.150 Mbits/s via Wifi stick
Optional LTE stick	**AB000002**	**AB000002**

WEB CLIENT DASHBOARD. POWERFUL. VERSATILE

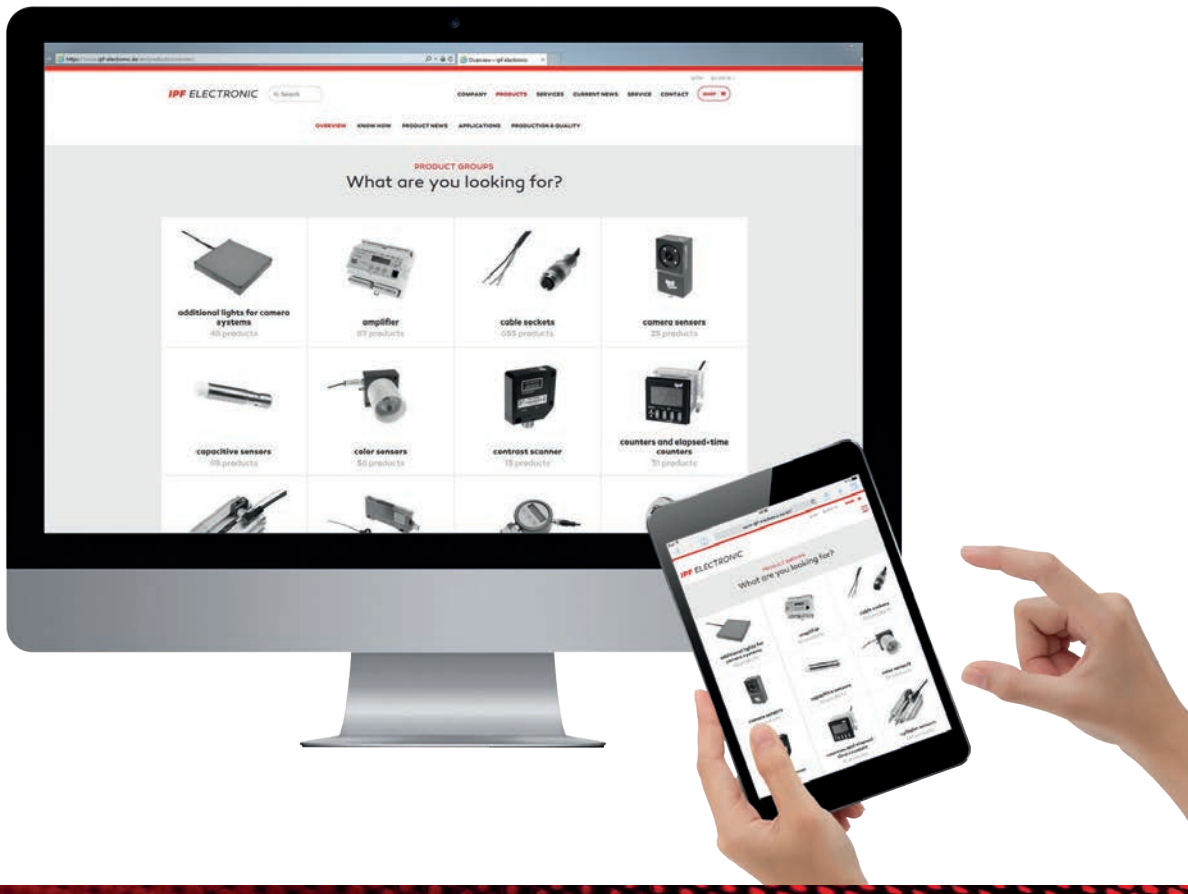
The clear, dynamic dashboard handles the visualization of all measured values on PCs or mobile devices and is based on open source software. The highly flexible visualization solution is therefore individually configurable in a variety of ways and offers a quick overview of the most important key figures and variables with numerous display options.

HIGHLIGHTS:

- Various display options
  (e.g. tachometer, column, curve diagrams, heatmaps, histograms, and many more)
- Easy selection of individual detailed views with higher resolution
  of individual representations
- Fast automatic alarming, e.g. based on rules, conditions or thresholds
- Trouble-free data transfer via email or messenger services
- Efficient teamwork via platform-independent VNC connection

Figure Gateway / Dashboards

www.ipf-electronic.com



WITHOUT CHANGE THERE IS NO DEVELOPMENT

And that is why we have completely redesigned our website for you. For example, our product search now offers a faster and easier orientation, either via the quick search or via the product overview sorted in alphabetical order by product groups.

By clicking on a product group, you can use a wide range of filter functions to further narrow down your product search and compare products with each other in a targeted manner, so that you can find your solution with just a few clicks. In addition, you will receive valuable additional information, e.g. in the form of white papers, application examples or product news, in which our developers present new products based on specific customer requirements and applications.

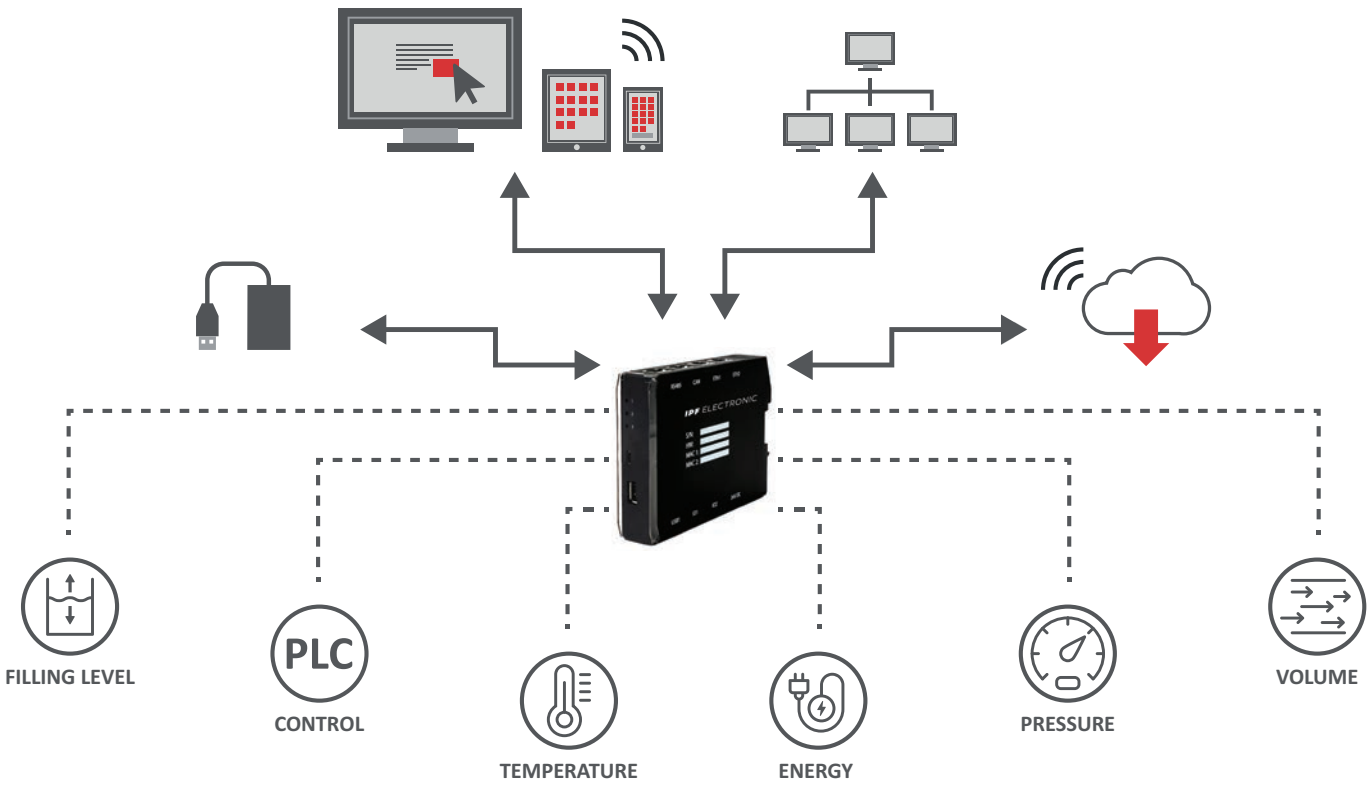
THE SYSTEM SOLUTION

DEPLOY FLEXIBLY, SCALE AT ANY TIME

The ipf-Gateway either enables the monitoring of a single plant or can be implemented as a networked, plant-wide solution. For trouble-free communication and transfer of inventory data, the ipf-Gateway masters all common protocols. ipf electronic offers a whole range of different sensors for decentralized consumption measurements (page 8-11).

The recorded data and measured values can be stored in the ipf-Gateway's internal memory or transferred to a local server or optionally stored in a cloud via a secure VPN connection.

USE AT MACHINE LEVEL



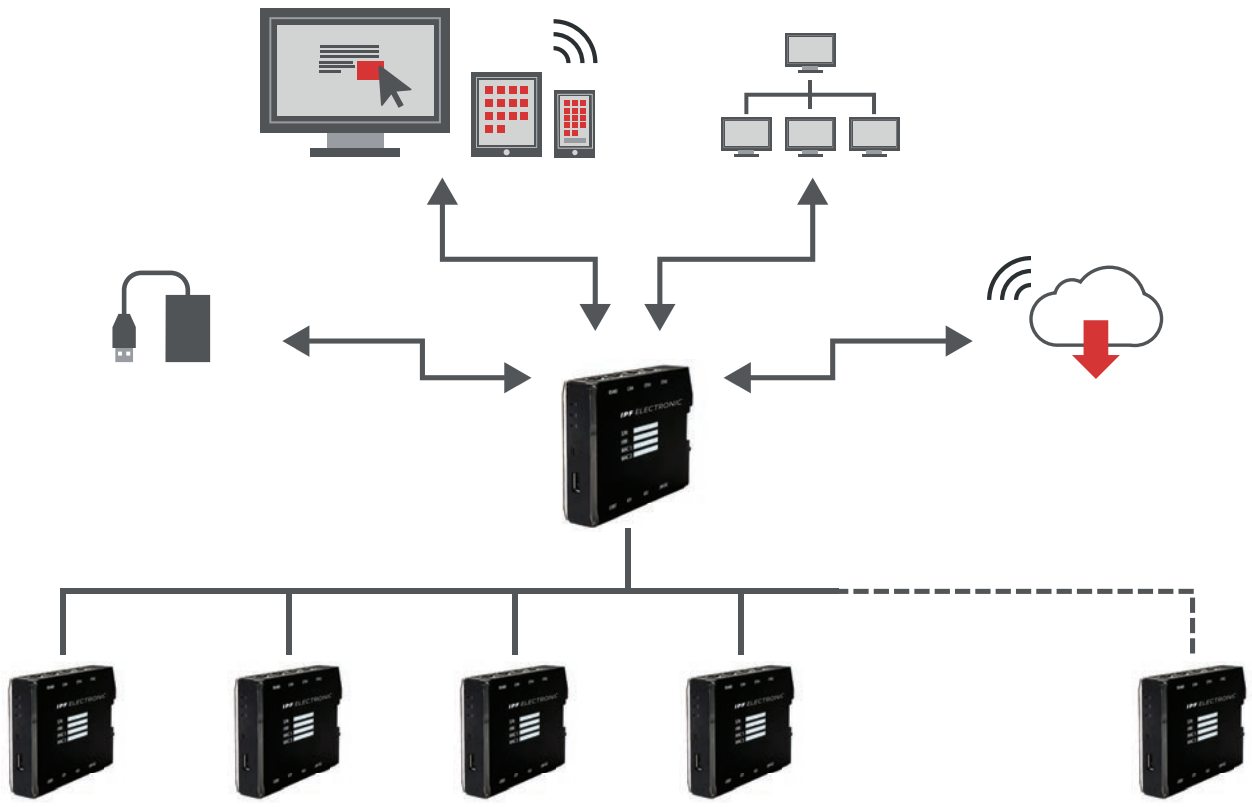
THE COCKPIT

CONFIGURE INDIVIDUALLY, OPERATE INTUITIVELY

The interactive dashboard offers a wide range of options for individual visualization and graphical representation of data from various sources, e.g. InfluxDB, MySQL, PostgreSQL or Prometheus. Also enlarged representations with detailed views e.g. for a higher resolution of timelines etc. are possible.

Finished dashboards can be exported to a compact JavaScript data format, imported to other devices, and opened with the visualization software. A platform-independent VNC connection also enables easy team-wide collaboration.

USE AT PLANT LEVEL



GATEWAYS AND EXPANSION MODULES

BY000002/BY000003

- Gateway for data acquisition of energy flows
- Integrated data storage
- Visualization software pre-installed (freeware)
- Up to 4 analog inputs
- Digital IO's
- Supports multiple protocols: Modbus, CAN, MQTT, HTTP, Cloud of Things, OPC U/A, DB/SQL
- Back-plane bus connection for connection of expansion modules

AB000002

- LTE stick for IOT Gateway

AB000003

- Connection of up to eight additional analog input signals

VERSATILE SOLUTIONS - TARGETED CONSUMPTION MEASUREMENTS, SUSTAINABLE COST REDUCTIONS

Complementing the ipf-Gateway, ipf electronic has a large selection of high-performance sensors for temperature and consumption measurements of gaseous and liquid media. Here is an overview with the essential functions and features.

SENSOR VERSIONS

SERIES SM

- *I* Flow, volume and temperature measurement of electrically conductive liquids
- *I* Media such as e.g. water, coolants, pastes etc.
- *I* Dosing function
- *I* 2 x analog output, switching, pulse and frequency output
- *I* Measuring range up to 650 l/min

SERIES SL

- *I* Flow, consumption, temperature measurement, velocity of technical gases
- *I* Media e.g. compressed air, natural gas, nitrogen, carbon dioxide, etc.
- *I* Analog output, Modbus Ethernet-TCP, M-Bus

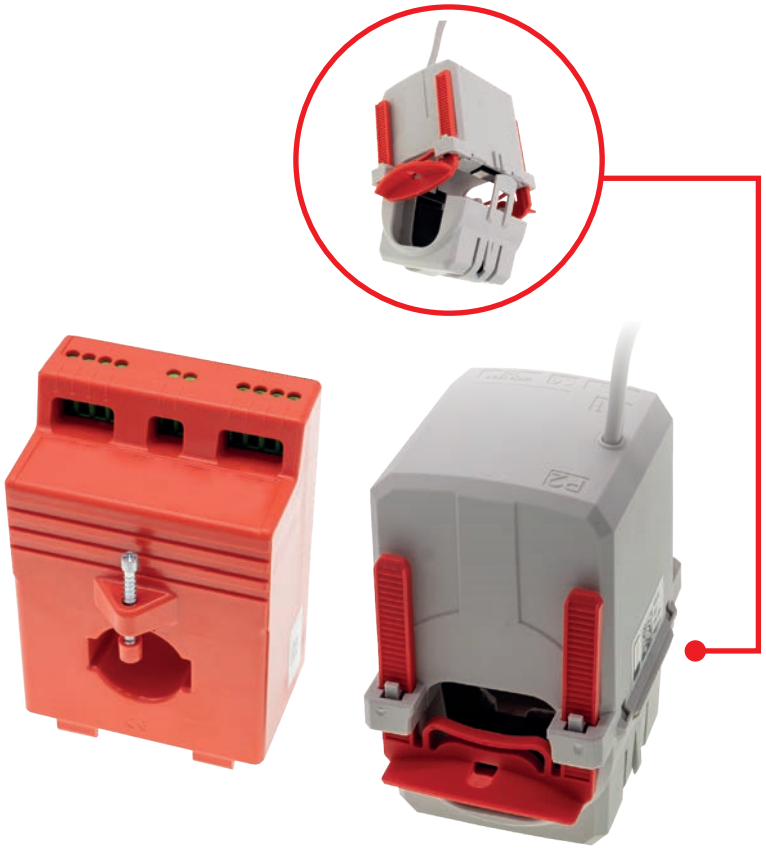
SENSOR VERSIONS

SERIES FK/FM/UT

- Level measurement of liquids and pasty media
- Media e.g. industrial water, coolants/ lubricants, cleaning emulsions
- Analog- and switching output
- Measuring range up to 6000mm

SERIES NZ

- Power consumption measurement of components, plants and operating sites
- Mounting on busbar or round conductor
- Analog output
- Measuring range up to 600A



SERIES DW3 / DT16 / DW16 / DW06

- Pressure measurement of gaseous and liquid media
- Media e.g. compressed air, natural gas, cooling water
- Analog- and switching output
- Measuring range up to 600bar

SERIES YT3

- Temperature measurement of technical gases and liquids
- Media e.g. compressed air, coolant
- Analog and switching output
- Measuring range up to 350°C

ipf electronic gmbh
info@ipf-electronic.com • **www.ipf-electronic.com**

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