Full potential for efficient building automation

The powerIO®-System is ideal for connecting communicative sensors and actuators. It combines performance and data in one system. It enables a completely decentralized structure of the building installation and revolutionizes your working method!

Instead of laying miles of cables to the central control cabinet and laboriously wiring each connection, the powerIO®-System offers you an easy installation. This reduces your effort and allows you more possibilities.

Profitable!
Reduction of cable pull and control cabinet construction by up to 70 %

- Fewer cables and up to 30 % savings in installation costs
- High time saving thanks to low coordination effort with reduced construction time
- Copper and PVC savings and reduction of MSR costs

Flexible!
Open system, easy and rapidly to expand

- Freedom through standardized protocols and freely selectable control systems
- Modularity & decentralization allow an almost free topology

Reliable!
More control, higher security, fewer connection errors, more data

- More safety: significant reduction of the fire load
- More control, fewer connection errors
- High data traffic possible at high speed

The **powerIO®**-System simplifies everything!

We enable more efficient control, better monitoring and safer operational management than previous conventional systems.

powerIO® – From vision to company

Decentralized building automation is the future of all smart buildings

A vision has grown, developed and become reality. From practice and with about 30 years of experience in the planning and construction of functional buildings such as industry, offices, municipalities, hotels, schools and many more, a decentralized installation system for building automation has been developed. The powerIO GmbH offers you all necessary components from one source!

„The **powerIO®**-System requires less installation, coordination and costs - and offers more control and information. In this way, we can connect people and technology, environment and energy as well as life and comfort. This is how we ensure a successful future. For each of your projects!"
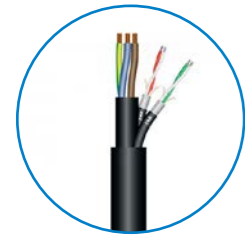
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Building automation 4.0

Decentralized. Simple. Visionary.

power **IO**

powerIO® is the system for decentralized building automation

powerIO®-Line
All you need is our Hybrid-Cable for data transmission (Ethernet TCP/IP, 100 Mbit/s) and power (230V).

Free choice of control system
The powerIO®-System is compatible with any ethernet-enabled PLC*, DDC* or BMS*!

powerIO®-Box
The decentralized automation box distributes power and data. Depending on requirements, several powerIO®-Boxes can be connected to the powerIO®-Line. Serial protocols are converted to TCP/IP fully automatically – this offers enormous advantages in terms of speed and operational safety.

powerIO®-Start Unit
This start coupling unit is used in the control cabinet and transfers data to separate powerIO®-Lines.

Control cabinet
The powerIO®-System enables an extremely reduced switch cabinet construction. On the one hand reducing the power electronics (230/24V) consumers can be connected via the boxes). On the other hand the communicative sensor and actuator technology saves a lot of input and output modules – and thus also many cables.

Control according to IEC 61131-3
Optionally, you can turn any powerIO®-Box into a CODESYS® PLC control. As room controller or the first box as central controller for your powerIO®-Line. For all Codesys based controllers, detailed libraries for communicative sensors and actuators as well as for HVAC* applications are available as download.

powerIO®-Y
This Y-Adapter makes it possible to connect two sensors or actuators to one connection of the powerIO®-Box.

powerIO®-Extension boards
If RS485 with standard protocols (Modbus/BACnet) is not sufficient, the system can be expanded using the powerIO®-Extension boards. Possible are classical inputs and outputs or other protocols.

Modbus
DALI
M-Bus
BACnet
KNX
Ethernet
enocean

Connection of sensors and actuators
Via the powerIO®-Boxes the sensors and actuators of the various systems (air conditioning, heating and ventilation technology) are connected. Standardized M12 connectors are used for serial devices are supplied with RS485 as well as 24V/DC.
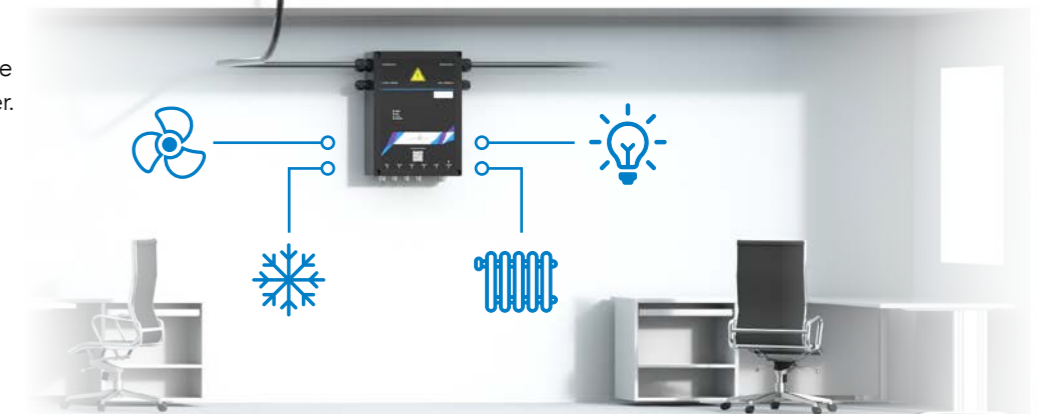
powerIO®-Bluetooth Dongle
Allows you to connect the powerIO®-Box with the powerIO®-App. This ensures simple commissioning, facilitates service and enables manual override.

powerIO®-RIO
Offers classic connection options (digital and analog inputs and outputs with manual override up to 16 A) and is controlled via Modbus - or via the expansion board for fast communication e.g. in room automation.

powerIO®-Hub
The hub divides the powerIO®-Line. Advantage: longer distances in the building is possible – with the same short-circuit current path.

AHU Unit*
Your complete ventilation system on one powerIO®-Line!

Firewall
A single cable does not require a firewall. It couldn't be simpler.

Room automation
It couldn't be more efficient! Connect all sensors and actuators in a room to one powerIO®-Box. Ethernet and 230V/24V always with you! Fire dampers, volume flow controllers, room operating units or classic I/O extensions. With control or without – you decide!

High compatibility with leading manufacturers

Have a look at our 3D demo wall and get your own impression!
www.powerio.com/demowall

download the powerIO®-App
www.powerio.com/app

Get it on **Google Play**
Download on the **App Store**

*PLC = Programmable Logic Controller
DDC = Direct-Digital-Control
BMS = Building Management System
HVAC = Heating, Ventilation and Air Conditioning
AHU Unit = Air Handling Unit