



**NEW
PRODUCTS
ISSUE 1/2020**

SMART TECHNOLOGY FOR YOUR ENERGY EFFICIENCY NEEDS

Dear Reader,

Why are we really lagging behind in climate protection? According to statistics, 35% of Europe's buildings are over 50 years old, but very few – just 3% – have been renovated so far. If these existing buildings were all consistently upgraded to be climate-friendly, energy consumption and CO₂ emissions could be drastically reduced. The technologies and solutions to master this challenge are ready to deploy. WAGO has a well-established legacy of proactively supporting energy-efficient building operations that has led to numerous innovations within the areas of building installation and automation being introduced at the Light + Building trade show. And we are presenting the most exciting ones in this issue. A prime example is the new WAGO Gelbox. With this ingenious development, you can protect your electrical installations easily, quickly and reliably from moisture and humidity. Don't waste valuable time when you're protecting electrical interconnections: Open the box, insert the wired connector, close the box – done! Our new developments in the field of building automation also support you in completing your projects more efficiently and economically. An example of this support is the firmware extension for the PFC200 Controllers and Touch Panels 600 product lines, which allows existing devices to be updated as well. Now it is possible to activate BACnet licenses on the devices. As a result, a large number of devices including WAGO Controllers, Couplers or Touch Panels are now available for BACnet projects. We've gone beyond our standard-setting electrical interconnection

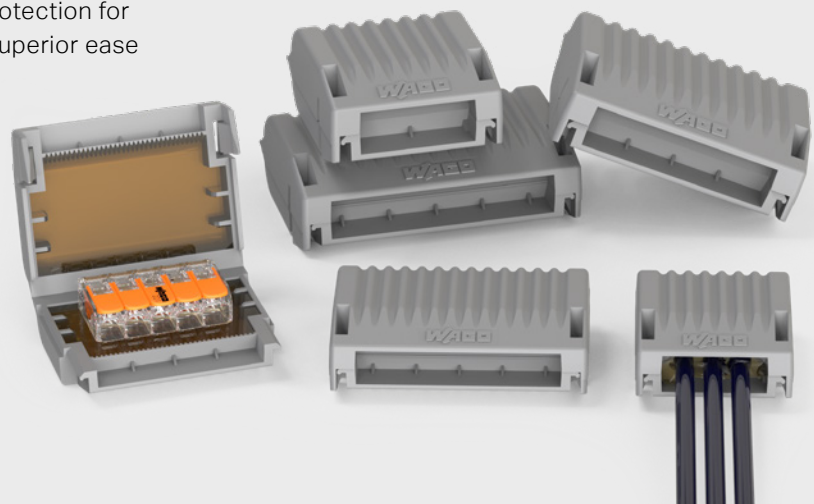
and automation technologies to optimize and develop interface solutions that support your goals. For example, our new Pro 2 Power Supplies not only set new standards in communication and parameterization, but with up to 96.3% efficiency, they've established a new benchmark for economical operation. And don't forget to consider control cabinets requirements, where time and space savings are critical. Thanks to the push-in CAGE CLAMP® connection with a lever and its slim form factor, our new compact energy meter makes this possible, while providing a perfect overview with its large display. Are you intrigued by how WAGO's recent developments can help you? Ready for insight and details that will help you succeed? Then you'll enjoy this issue!

Best regards,
Dirk Dronia
Market Management Building Technology



04 SIMPLY PROTECTED FROM MOISTURE

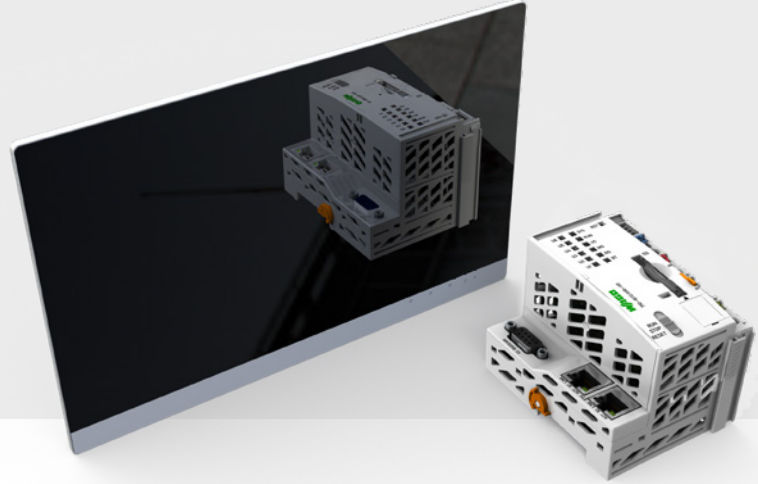
WAGO's Gelbox provides IPX8 levels of protection for splicing connectors – all while providing superior ease of use and reliability.



12

BACnet FUNCTIONALITY SIMPLY UPGRADED

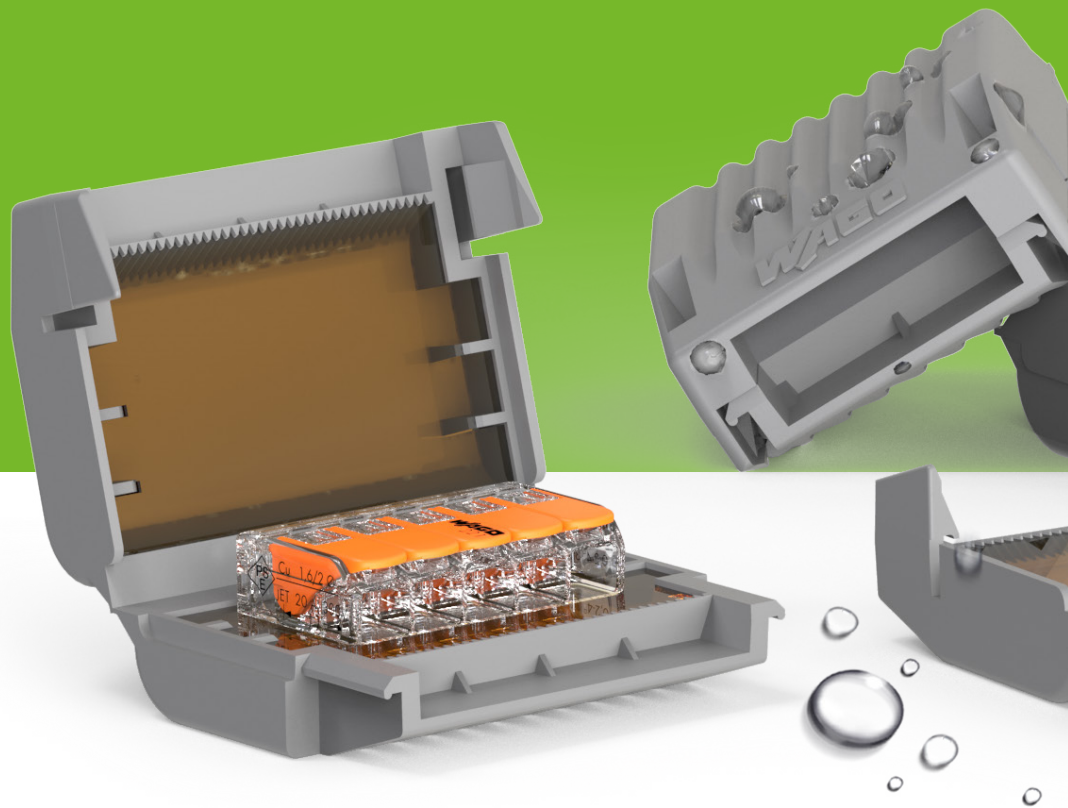
BACnet/IP Firmware Extension for
PFC200 and Touch Panels 600



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WAGO GELBOX



Simply Protected from Moisture

WAGO's Gelbox provides IPX8 levels of protection for splicing connectors – all while offering superior ease of use and reliability.

Electrical installations in environments that range from merely damp to soaking wet can now be made waterproof – in a way that's faster and easier than expected. Deploy it instantly at the site of your electrical installation. Access it at any time. Store it indefinitely if you wish. The WAGO Gelbox offers these benefits and unbeatable connection protection anywhere electrical installations are exposed to moisture

and humidity, such as outdoors. The WAGO Gelbox utilizes high-quality, silicone-free gel from Cellpack, making this enclosure ready to use in any branch of industry. The WAGO Gelbox is available in six sizes and is compatible with both WAGO's 221 Series COMPACT Splicing Connectors and 2273 Series COMPACT PUSH WIRE® Connectors.



Your Benefits:

- Fast application – ready for direct, on-site deployment
- Unlimited shelf life
- Ease of use
- Exceptional versatility – made of silicone-free gel for use in all industries
- Safe application: VDE test report and IPX8 certification pending



Item number:

207-133x
207-143x



Availability:

May 2020



Bringing Order to the Chaos of Many Wires

WAGO's Junction Box for the 221 Series allows you to clearly organize and quickly connect up to 60 conductors.

It doesn't matter if you are connecting a heating system or light distributions, things can get confusing wherever multiple cables meet. WAGO's Junction Box helps connect up to 60 conductors with WAGO's 221 Series COMPACT Splicing Connector for all conductor types up to 4 mm² (12 AWG). It creates a large-scale, fixed position of the clamping points on one level for both flush-mounted and surface-mounted cables. A total of 12 strain relief devices allow convenient and safe cable entry and fastening. The clearly visible labeling options of each terminal point ensure that you not only have an overview but keep it. Real-world examples include quickly identifying the circuit while upgrading or troubleshooting, retrofitting the installation or correcting errors. Since the junction box can be freely positioned, a host of possible appli-

cations exists in a wide variety of worksites. The tool-free and maintenance-free connection technology of the 221 Series Splicing Connector ensures fast wiring, simple rewiring and a secure connection.



Your Benefits:

- Simple, quick and safe connection of up to 60 conductors
- A clear, structured arrangement that's secured on one level
- Clearly visible labeling of each individual clamping unit



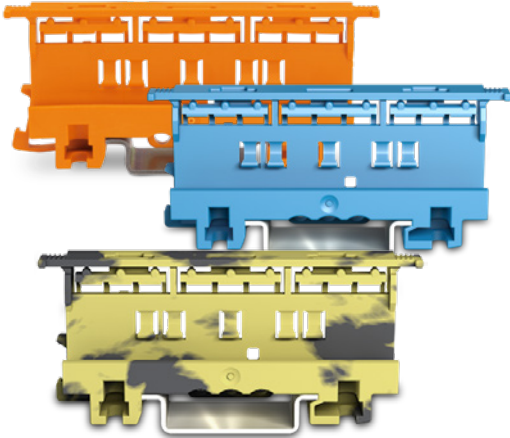
Item number:
207-4301 Series



Availability:
June 2020

Greater Distribution Box Transparency

WAGO's 221 Series Mounting Carriers ensure easy installation and expedited maintenance.



Your Benefits:

- Suitable for 221 Series Splicing Connectors up to 6 mm² (10 AWG) – for 2, 3 and 5 conductors
- Simple, flexible and clear installation
- Fast troubleshooting and maintenance



Item number:

221-500/000-053
221-500/000-006
221-510/000-053
221-510/000-006

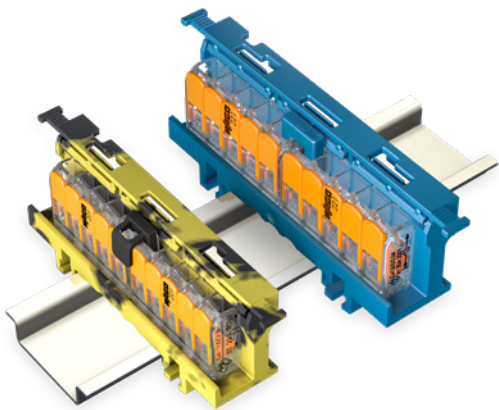


Availability:

from stock

One Potential, Even More Clamping Points

WAGO's Series 221 Adjacent Jumper increases the number of clamping points on one potential.



Your Benefits:

- Create potential distributions with up to 8 connection points in the DIN-rail adapter
- Optional lock guards against the unintentional opening of a connection (locking function)
- Four variants: with and without locking of the contact point lever, each available in blue or gray
- Suitable for both sizes of the 221 Series: 4 and 6 mm² (12 and 10 AWG)



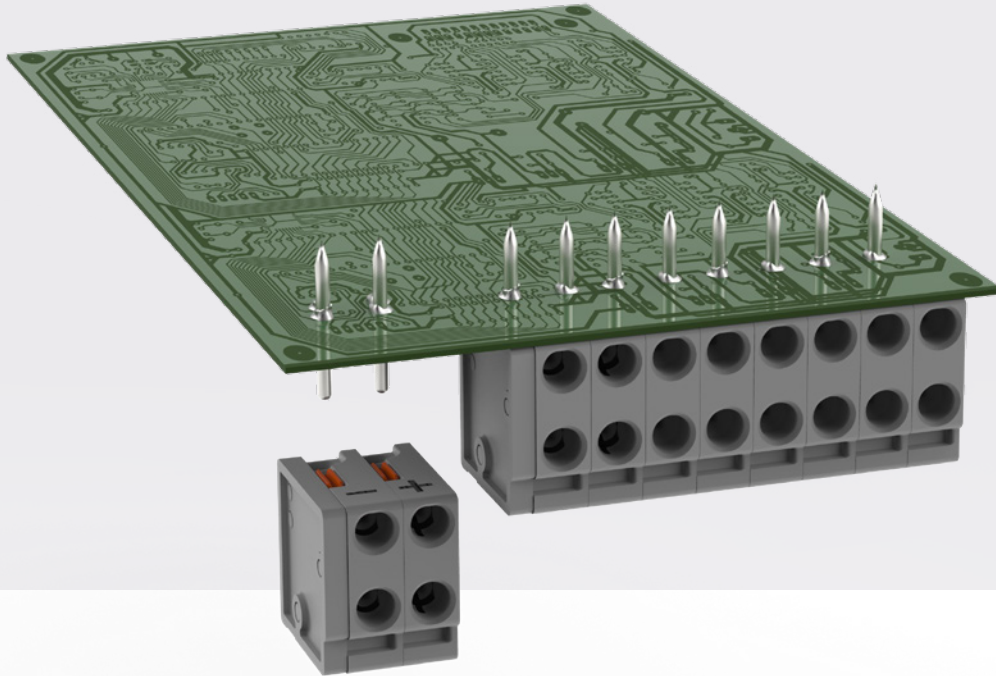
Item number:

221-941
221-941/0000-0006
221-942
221-942/0000-0006



Availability:

July 2020



New Pluggable PCB Terminal Block with Many Advantages

WAGO's 252 Series PCB Terminal Block provides flexibility in building applications.

A compact 2-conductor PCB connector with pin connection from above joins WAGO's 252 Series PCB Terminal Blocks. It has been specially developed for the alarm systems used in buildings. The pin connection is made comfortably from the top of the unit. Solid conductors can be directly inserted via PUSH WIRE® connection technology and removed via push-buttons. An additional advantage of the 252 Series PCB Terminal Block is revealed during use: In ring lines, the 2-wire connection guarantees uninterrupted operation and enables quick and easy PCB replacement. A new feature for the entire 252

Series: With optional printing, the pluggable PCB terminal blocks can also be used in KNX applications.



Your Benefits:

- Suitable for KNX applications
- Uninterrupted use in ring lines
- Push-in termination of solid conductors



Item number:

252-302 to
252-310



Availability:

from stock

Maximum Safety in the Smallest Space

A center locking lever and strain relief plate for WAGO's MCS MAXI 16 PCB Connectors offer safety in an incredibly compact design.

Both the highest safety and an easy-to-use design – in the smallest of spaces – is provided by the center locking lever with or without strain relief plate for WAGO's 832 Series MCS MAXI 16 PCB Connectors. This makes WAGO the market's most compact solution for locking PCB connectors within power electronics. The intuitive center locking lever protects against unintentional disconnection of the connector – without additional pin spacing width, allowing the connectors to be placed directly next to each other. In combination with the strain relief plate, conductors are secured against pull-out forces. At the same time, the user has a solid gripping plate that makes plugging and unplugging the connector easier.



Your Benefits:

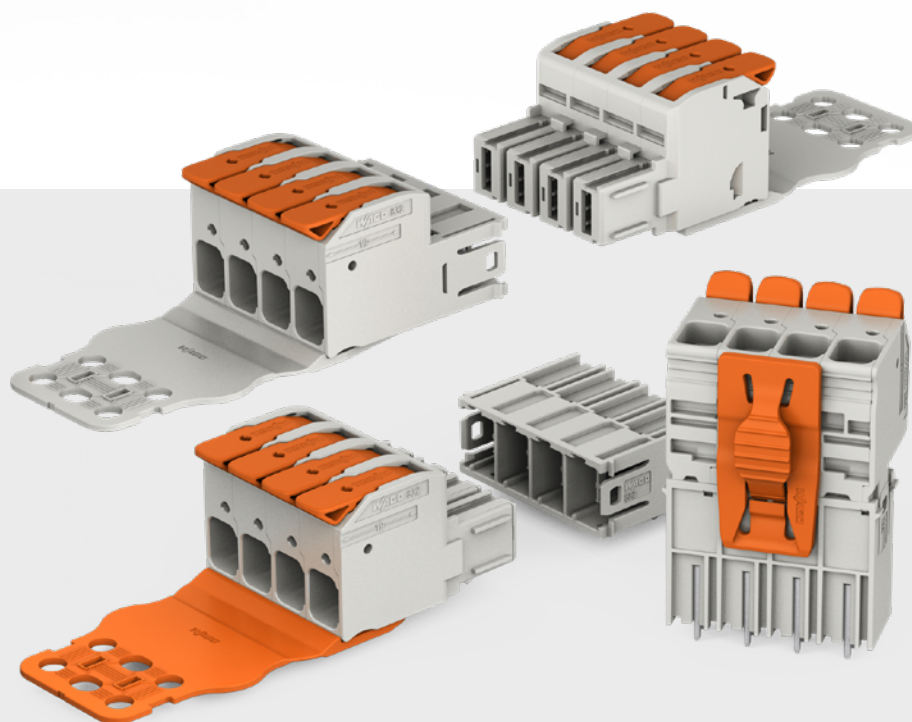
- **The most compact center locking lever on the market for PCB connectors used within power electronics**
- **Intuitive mechanism allows easy locking and unlocking with one hand.**
- **The strain relief plate secures the connected conductors and facilitates installation as a gripping plate.**

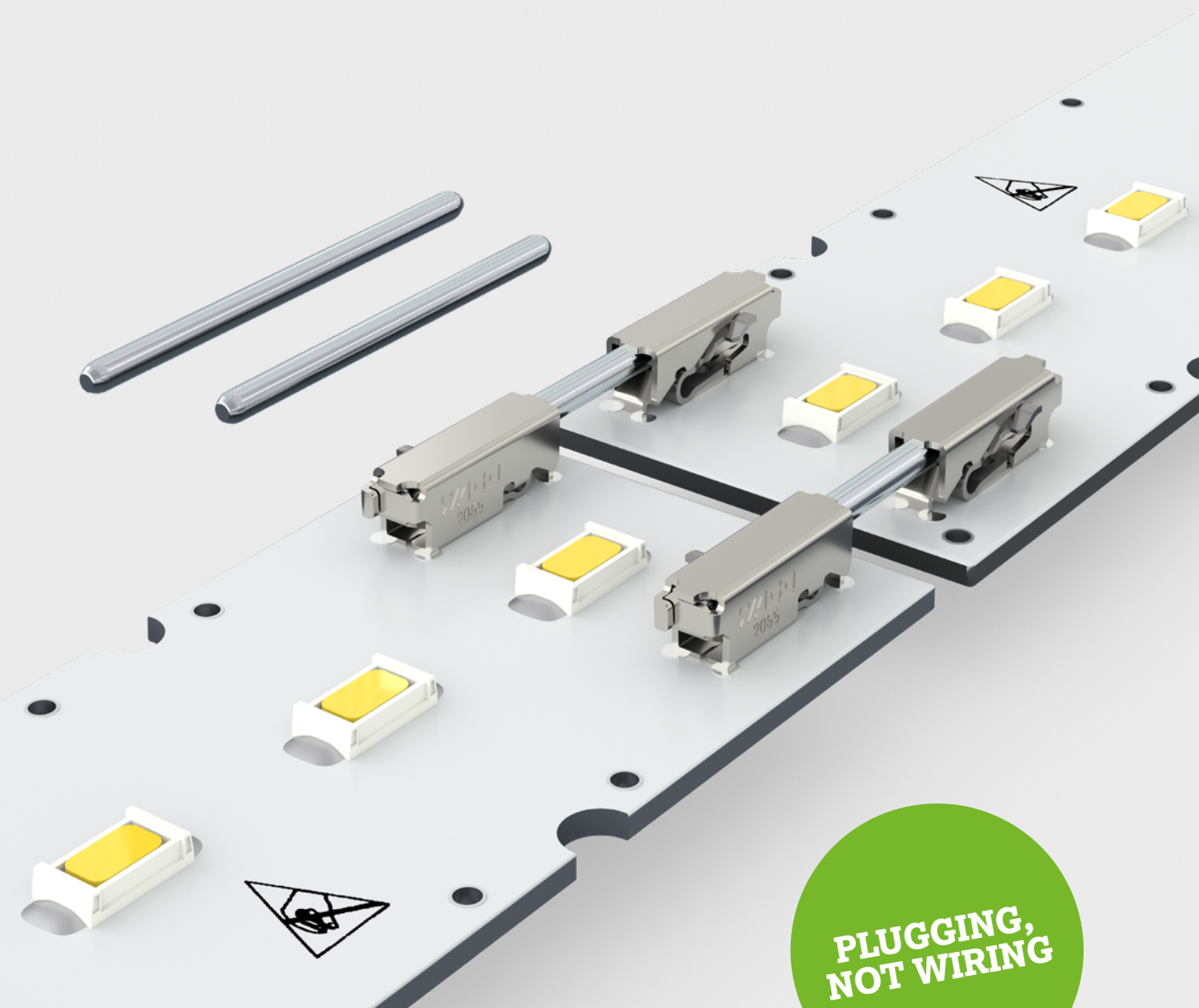


Item number:
832 Series



Availability:
from stock





**PLUGGING,
NOT WIRING**

Faster LED Module Connection


Board-to-Board Link for the WAGO 2065 Series SMD PCB Terminal Blocks

Why wire several LED modules together, when inserting a link is so much easier and faster? With the new Board-to-Board Link for the WAGO 2065 Series SMD PCB Terminal Blocks, connecting LED modules together is now simple as can be. The combination of terminal block and board-to-board link saves time, money and space.




Your Benefits:

- Simple LED module connection
- Save time over manual wiring
- Space-saving combination of terminal block and board-to-board link



Item number:
2065-131
2065-133



Availability:
from stock

Unlimited Freedom in LED Light Design

New Lighting Connection Box: A Connection Solution for All Installation Types

Increasing miniaturization and popular flat LED lights require universal connection options. WAGO's new lighting connection box offers the best solution because it is housed outside the light. This gives lighting manufacturers more design freedom. Additionally, no dirt and dust can get into the light during installation because it no longer has to be opened for the connection. The new box has ample installation space and is suitable for a large range of conductor cross-sections up to $5 \times 2.5 \text{ mm}^2$. Regardless of how the project is installed, lights with the WAGO Lighting Connection Box fit into every concept – it doesn't matter if you choose a pluggable building installation, such as the WAGO Pluggable Connection System *WINSTA*® or a

conventional installation type. The integrated Linect® Interface also contributes to this, a connector with a conventional conductor connection is also available in addition to the pluggable version.



Your Benefits:

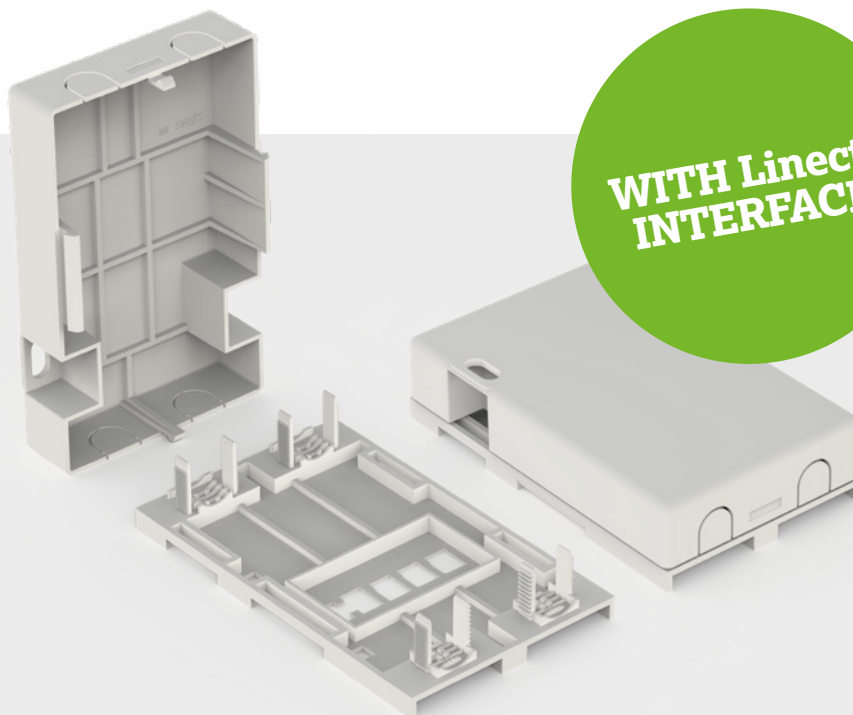
- Perfect connection technology for very flat lights
- Suitable for all installation types
- Large connection space for conductor cross-sections up to $5 \times 2.5 \text{ mm}^2$

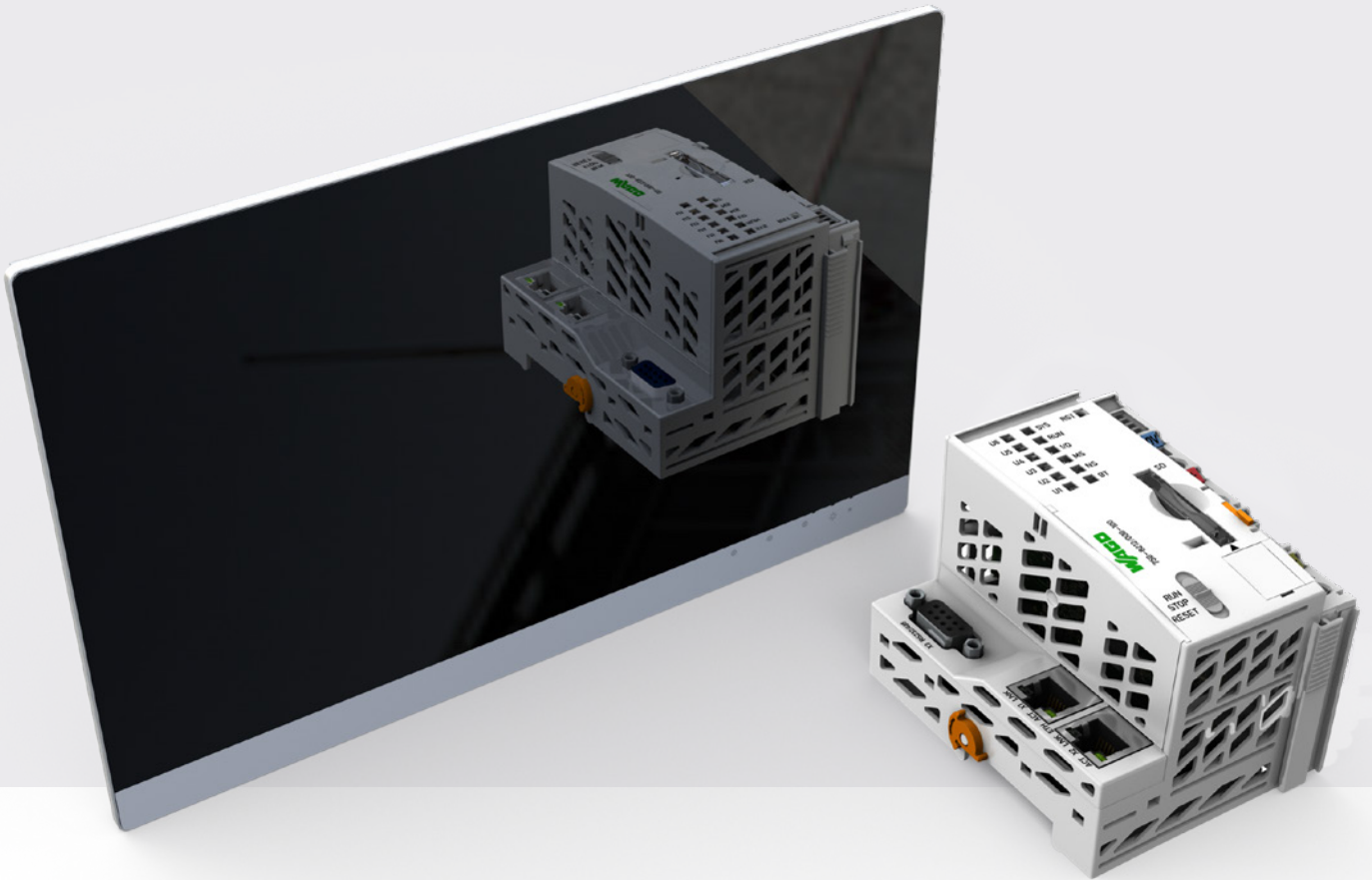


Item number:
0899-8005



Availability:
July 2020



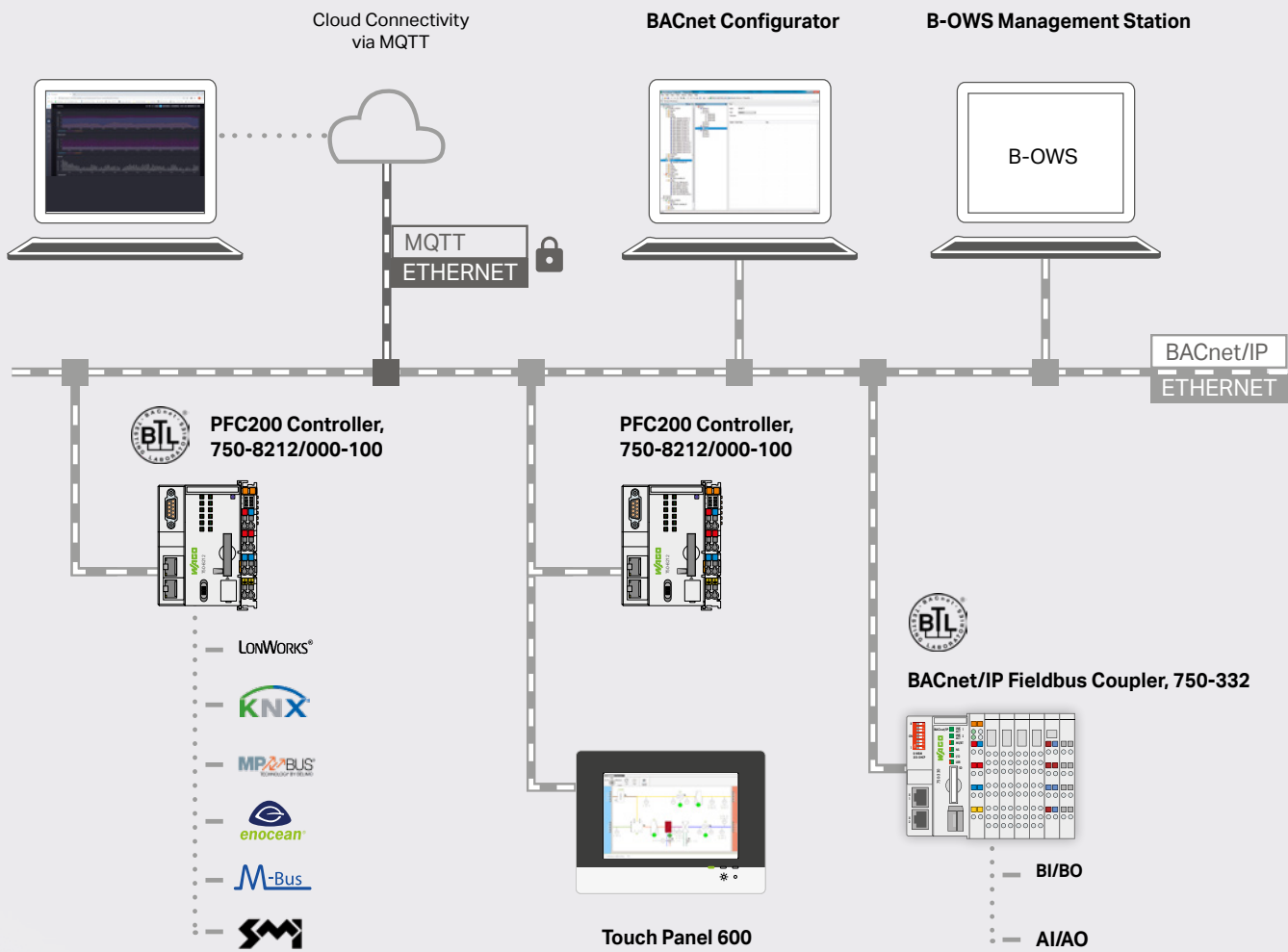


Retrofit BACnet Functionality

BACnet/IP Firmware Extension for PFC200 and Touch Panels 600

BACnet is one of the most common communication protocols used in building automation. Recognizing this, WAGO is now offering a firmware extension for its range of PFC200 Controllers and Touch Panel 600 units; the extension can be used to activate existing devices by licensing for BACnet/IP. This addition allows a large number of BACnet objects to be automated with just one PFC200 Controller or Touch Panel 600. With

the powerful, Linux®-based Touch Panels and BACnet licenses, control and visualization of larger building automation projects can be implemented on a single device. The devices act as BACnet Building Controllers (BBC) per BACnet Revision 14. The BTL listing means that they meet the typical requirements found within tenders. WAGO offers two different licenses: one supplies up to 256 BACnet objects, the other has no limitations.



Your Benefits:

- Use existing products with BACnet/IP
- Automating a very large number of BACnet objects
- Control and visualization in one device for cost-effective solutions
- Scalability through different licenses



Item number:

- 0759-0286/
- 0211-1000
- 0759-2286/
- 0211-1000



Availability:

April 2020



Control Lighting Conveniently and Clearly

New, Intuitive User Interface for WAGO Lighting Management

After installing and commissioning WAGO Light Management, the focus becomes operation and monitoring while the system is running. For this focus, the new visualization provides a streamlined user interface. Regardless of whether on a desktop, touch panel, tablet or smartphone – the entire lighting system can be operated clearly and conveniently via the HTML5 web user interface. Access is performed via a standard web browser. Responsive design ensures perfect display on all end devices. By visualizing the lighting system's operating data, the user is always informed on the current operating status of the entire lighting system. Simultaneous access to several light management controls is also possible via the new visual-

ization interface. In addition to language and color settings, HMI devices, users, rooms and custom profiles can be easily created and managed. These capabilities support fine-tuning lighting to meet very specific needs.



Your Benefits:

- Intuitive operation
- Individually designed user interface
- Cross-controller access through light management software



Item number:

750-8212
2759-204/261-1000
2759-2101/271-1000
2759-2102/271-1000
2759-2103/271-1000



Availability:

March 2020

Cybersecurity Directly in the Switch

New Industrial Managed Switch with Integrated Encryption

Cybersecurity is a hot-button issue in building automation (BA). With the new industrial managed switches from WAGO, users can easily increase the security of their BA applications. The innovation integrates cybersecurity functions: Data packets are encrypted with 128 bits on two ports. This means that it's possible to integrate secure data transmission into an existing network – regardless of the protocol and without changes in the application. The encryption meets the IEEE 802.1AE standard (IEEE MAC Security Standard), ensuring data integrity and authentication of the transmitter with high data throughput. The optional authentication of the other participants in the network is port-specific in accordance with IEEE 802.1X and RADIUS server. Due to its compact geometric shape (45 x 90 x 110 mm), the new 8-port gigabit switches can be easily retrofitted in the control cabinet. And each switch is equipped with two ports for encrypted communication.

With WAGO's 852-1328 Industrial Managed Switch, SFP modules are used for secure communication. This also enables secure networking of distant buildings with optical fibers. Configuration and diagnostics of the industrial managed switches are also performed securely using a web browser or SNMPv3.



Your Benefits:

- Industrial managed switches with hardware-related encryption (Mac security)
- Retrofit secure data transmission in existing networks
- Authentication in the network



Item number:

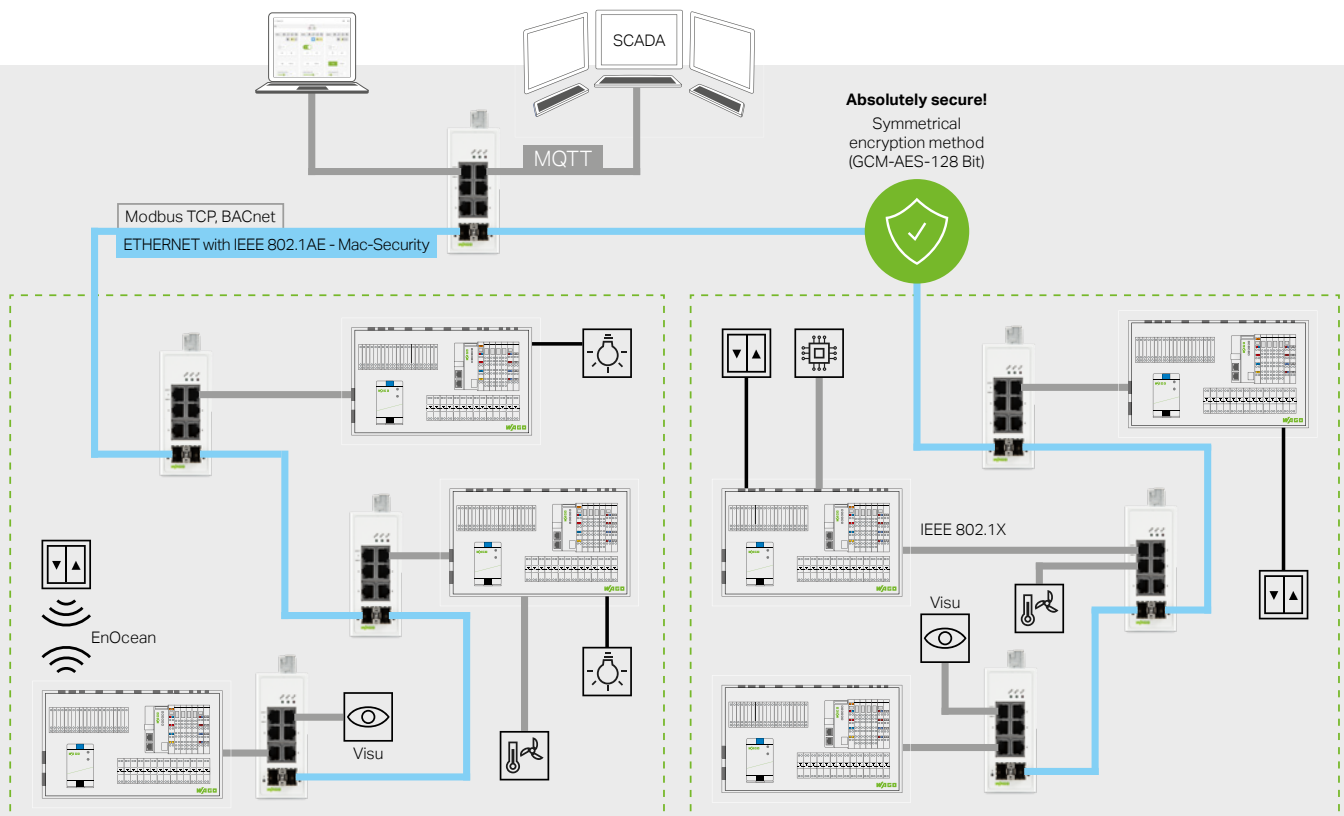
852-1322

852-1328



Availability:

June 2020





NOW ALSO
IN 15.6 AND
21.5 INCHES



High-Quality Visualization

Visu Panels and Control Panels with Larger Display Sizes and Higher Resolution

Automation and visualization tasks are becoming increasingly complex. When combined with **e!COCKPIT**, the new Visu Panels and Control Panels provide the perfect solution for high-quality visualization. Their screen sizes of 15.6" (39.6 cm) and 21.5" (54.6 cm) are significantly larger than those of the current WAGO Touch Panels 600, allowing the new devices to display more information. The resolution is now higher with Full HD for displaying data in greater detail – thanks to the onboard visualization – without sacrificing response time.

Practical features such as an energy-saving standby function, integrated sensors for automatic brightness adjustment and an easy-to-mount design make installation and operation

simple. All Visu Panels and Control Panels are equipped with the future-proof Linux® operating system and are "Docker-ready" – just like the current Touch Panels 600.



Your Benefits:

- High-quality visualizations can be displayed with the new Visu and Control Panels.
- Docker-ready devices
- High-resolution displays in a robust aluminum housing



Item number:

762-430x

762-420x

762-520x

762-530x



Availability:

March 2020

PFC200 Controllers Now with Four ETHERNET Ports

Two additional interfaces offer more connectivity and additional freedom.

The latest generation of WAGO's PFC200 Controllers now offers up to four separately configurable ETHERNET ports, allowing the implementation of applications that increase demands on connectivity. The networks on the ports can be freely configured. This means that the controller can be integrated with two ports into both an extensive network and a smaller local network. The possibilities range from connecting to four different networks to connecting all four ports with other switches. This flexibility can prevent having to use an additional switch in the control cabinet, which is often the case. Integrated firewall functionality ensures high security in local networks. The four interfaces on the PFC200 are designed as 100BASE-TX ports with RJ-45 sockets. All common ETHERNET protocols are supported. Typical applications

for the PFC200 can be found in machinery and equipment control, in the process industry and in building automation. The powerful controller works with the real-time capable Linux® as its operating system and can be programmed with the IEC 61131-3 languages.



Your Benefits:

- Four ETHERNET ports on one controller
- Freely configurable
- There is no need for an additional switch in the control cabinet.



Item number:
750-8210



Availability:
March 2020

WITH 4
ETHERNET
PORTS





Data Analysis without IT Skills

The WAGO Cloud is the universal IoT solution for machines, systems and buildings.

It doesn't matter if it's in industry, in buildings or in retail – worldwide access to data has become essential for any company. WAGO Cloud offers you the possibility to centrally collect and analyze data from different machines, systems and buildings. Furthermore, you can easily manage and monitor all WAGO controllers, including your data and applications, on a PC, in a conference room or on a tablet while traveling. With simple, user-friendly operation, WAGO Cloud was developed so that people without extensive IT experience can use it. Thanks to its app structure, WAGO Cloud is intuitive to use. Many standard functions such as visualization, remote maintenance and firmware update are already set up. WAGO Cloud is ready

after just a few mouse clicks. It is based on the established Microsoft Azure cloud platform. Microsoft Azure is highly scalable in terms of computing power, data storage, transactions, availability and security standards – it is a future-proof solution.



Your Benefits:

- Global access through WAGO Cloud
- Ready and easy to use
- Highly scalable solution



Item number:
2759-1061/6501,
-6505, -6510



Availability:
December 2019

Efficiency Becomes Visible

WAGO Energy Data Management (EDM) – Easy, Flexible, Efficient

WAGO Energy Data Management offers more than data acquisition, storage and visualization. Based on data transparency and energy key figure calculation, it allows accurate efficiency assessments and leads to successful energy management that adheres to ISO 50001. IT knowledge is not needed for this – simple parameterization is sufficient. With this solution, users benefit from maximum flexibility, security and convenience – from the extensive connectivity of energy meters and systems to location- and software-independent HTML5 web visualization, alarms for limit violations and integrated cloud connectivity. Optionally, modern dash-

boards can present efficiency developments in a clear, traceable and device-independent manner.



Your Benefits:

- **Simple parameterization instead of complicated programming**
- **Efficiency assessment thanks to energy key figure calculation**
- **Maximum security and connectivity**



Item number:

2759-206/

261-1000

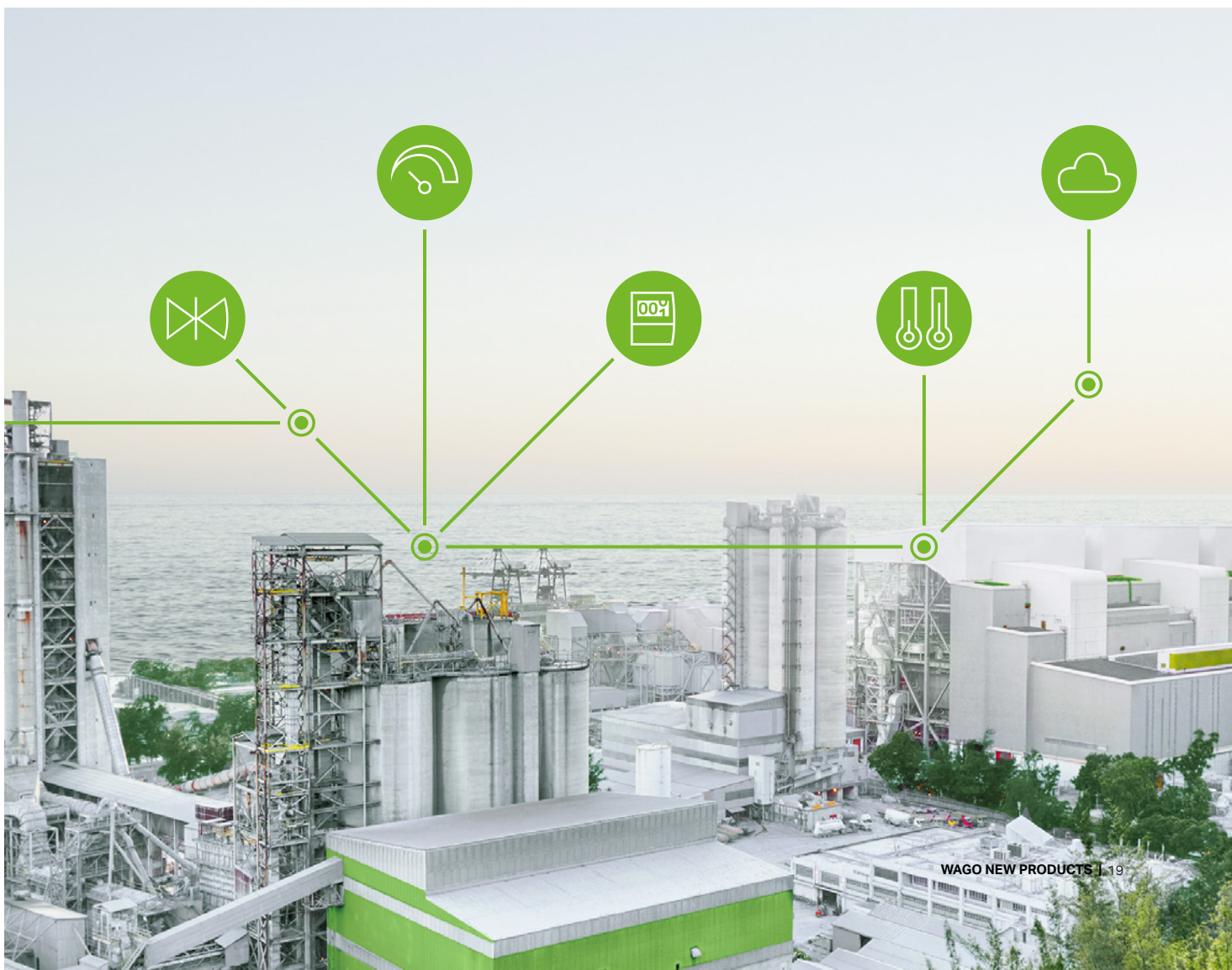
2759-207/

271-1000



Availability:

from stock





Easy Installation and Configuration

New Compact Energy Meters with a Large Display

Comprehensive energy measurement is necessary for optimizing energy consumption. WAGO now has new energy meters in its portfolio that offer numerous advantages. They use the Push-in CAGE CLAMP® with a lever, making them connect quickly and easily. The devices have a width of just 72 mm for direct measurement; versions for current transformers are even slimmer at only 35 mm. These widths save a lot of space in the control cabinet. In addition to the values for active and reactive energy, the energy meters also record the mains frequency as well as current, voltage and power for all phases. The user sees all energy quality features at a glance on the large, illuminated display. The new energy meters are true communication professionals. All devices have both an M-Bus and Modbus® interface that can be selected by the user. In addition, two S0 interfaces are available for both energy directions, with the pulse rate being adjustable. Configuring and operating the new meters is very simple: A large display facilitates operation using the integrated sensitive controls. A configuration app can also be

used that communicates with the device via *Bluetooth*®. With these new energy measurement devices, a wide variety of building or industrial applications can be implemented thanks to the MID declaration of conformity. Applications with consumption billing are also possible.



Your Benefits:

- Saving time at every level thanks to the Push-in CAGE CLAMP® and lever
- Conserving valuable cabinet space via slimline design
- Professional communication thanks to the M-Bus and Modbus® interface and two S0 pulse outputs
- Full transparency with an illuminated full-format display
- Intuitive configuration through touch-sensitive controls and configuration app via *Bluetooth*®



Item number:

879-3000

879-3020

879-3040



Availability:

November 2020

Communicative and Reliable in Demanding Environments

WAGO Power Supplies Pro 2


WAGO's line of Pro 2 Power Supplies, which range from 120 to 960 W, sets new industry communication and parameterization benchmarks. And with up to 96.3% efficiency, the devices have also set new standards for economical operation. This saves hard cash, especially when used in applications that run around the clock, 365 days a year – such as those in building automation. On top of that, the adjustable overload behavior, as well as the Top- or PowerBoost, guarantee high system uptime. Optionally, the devices are now also available with a protective coating, which offers even greater resistance to dirt, moisture and corrosion, e.g., by harmful gases according to the ISA-71.04 Class G3 standard. This is particularly advantageous in applications for utilities and disposal companies, as well as those in process technology. Snap-on type communication modules for IO-Link (and

coming soon for Modbus RTU and Modbus TCP), enable constant communication and intelligent monitoring. They also allow parameterization for both commissioning and maintenance via the PLC or the building automation system, preventing expensive on-site service.




Your Benefits:

- Save energy and costs thanks to a peak efficiency of up to 96.3%
- Reliable supply via Top- or PowerBoost function
- Always informed through constant communication via standardized protocols



Item number:
 2787-2448, -2147, -2146, -2144
 2789-9080*
 2787-2346**
 2789-9015***
 2787-2348***



Availability:
 *from stock
 **September 2020
 ***June 2020





5 NEW VARIANTS

Compact and Powerful

WAGO Power Supply Compact in 5 New Variants

WAGO adds the following models to its portfolio of 43880 DIN-rail-mount power supplies: 24 VDC and 0.5 A (787-1200), as well as 12 VDC and 2.5 A, 5 A or 8 A (787-1201, -1211 or -1221). Each new model features push-in connection technology (*picoMAX*®) for fast, error-free and maintenance-free installation. Versatility is guaranteed by mounting on DIN-rail, as well as by using the optional mounting lugs directly on the mounting plate to achieve a wide variety of installation positions. Packed with performance, WAGO's DIN-rail-mount Compact Power Supply (787-2850) provides 30 W of power in a scant 35.5 mm (2 division units) for 24 VDC. It takes 33% less space compared to other devices in this performance class. It is particularly robust thanks to

overvoltage category III and marine approval and is easy to connect via push-in CAGE CLAMP® connections with push-buttons.



Your Benefits:

- Different mounting positions possible
- Approved in device construction due to compliance with EN 60335-1 (787-12xx)
- Pre-wiring (787-12xx) via pluggable connection technology (*picoMAX*®)



Item number:

- 787-1200
- 787-1201
- 787-1211
- 787-1221
- 787-2850



Availability:

from stock

Simply Protect Small Currents

New WAGO 0.5 A Electronic Circuit Breaker

With WAGO's single-channel circuit breaker (787-2861 / 0050-0000), even small load currents of 0.5 A can now be easily protected in control circuits. A quick and safe trip after 4 ms is guaranteed with all seven available circuit breakers. In addition, the circuit breaker saves space in the control cabinet or in the system distributor with its overall width of just 6 mm. Different control options for the integrated digital input allow channels to be set to a specific state, increasing usability. The digital output reports the current status. Identical profiles allow direct commoning of the input and output voltages across 857 and 2857 Series devices.



Your Benefits:

- Protection of load currents from 0.5 A to 8 A
- Slim 6 mm (0.236 inch) housing saves space
- Safe tripping of the circuit breaker after just 4 ms

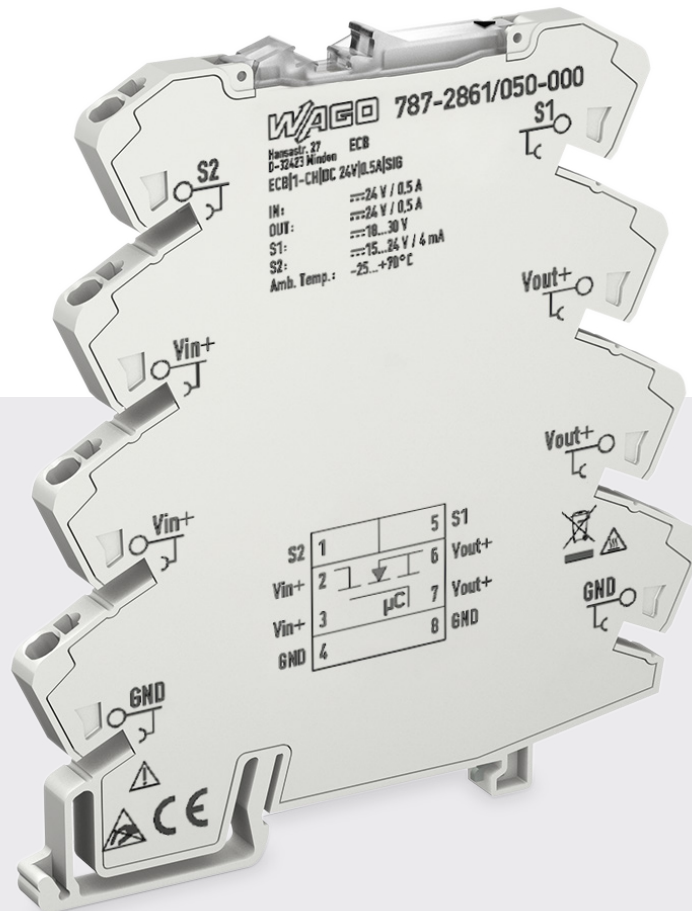


Item number:
787-2861/050-000



Availability:
from stock

**NEW:
0.5 A**



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