

# NEW PRODUCTS ISSUE 2022/2

## PLANNING AND CONSTRUCTING BUILDINGS FOR THE FUTURE

#### Dear Reader,

Flexibility and openness are the strengths of sustainable buildings. We offer you the best tools to flawlessly implement tomorrow's requirements today. Get to know our latest products and solutions from the fields of automation technology, interface electronics and electrical interconnections for your building project. Benefit from sophisticated connection systems, like the new 221 Series Inline Splicing Connector with levers that connect all conductor types with simplicity, speed and reliability, or WAGO's Energy Meters for simple and precise energy flow measurement in your systems and WAGO Solution Builder software. Do you want to efficiently and holistically implement your project engineering in building automation? Our new software solution will support you throughout the entire building lifecycle, from commissioning to maintenance. Position yourself for the future with WAGO in other industries and applications as well. Take, for example, the new 3-phase Pro 2 Power Supply that reliably and high-efficiently powers your automation systems. Are you already familiar with our latest solutions for modern mechanical engineering or energy distribution

network digitalization? Be ready to see what highlights WAGO has prepared for your digital future.

Enjoy this informative read.

#### Best regards,

Martin Hardenfels Head of Business Development Building



04

#### AN INTEGRATED APPROACH TO PROJECT ENGI-NEERING IN BUILD-ING AUTOMATION

WAGO Solution Builder can manage hundreds of devices through a central interface.





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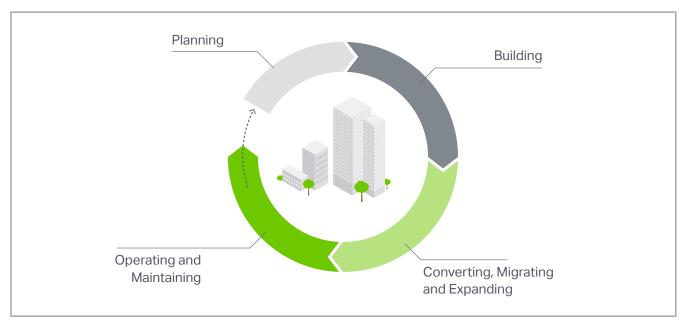
WAGO Solution Builder – register, download and use for one year free of charge!



https://www.wago.com/global/automation-technology/discover-software/solution-builder

#### An Integrated Approach to Project **Engineering in Building Automation**

WAGO Solution Builder can manage hundreds of devices through a central interface.



WAGO Solution Builder supports your building project from winning the contract all the way to maintenance.

As an integrated software solution tailored to building applications, WAGO Solution Builder supports you in setting up building automation systems. This simple, efficient tool for building projects enables platform-independent setup for the entire building through a Web interface - even offline. Technologies like BACnet® and subsystems like DALI are integrated into the workflow seamlessly. All the project documentation can be generated with the push of a button. Applications can also be saved as templates for easy reuse. All user groups work together through the new software solution's central interface, which simplifies operation and allows a consistent workflow. The bulk handling and intelligent bulk processing options also save time and money. With WAGO Solution Builder, you can manage hundreds of devices, such as automation stations, couplers, switches and third-party devices. Processing a large number of applications and data points, including automatic inheritance of information, is one of the core functions. Device management supports the user throughout a building's lifecycle.

- A clearly organized representation of the system on a Web interface
- An efficient workflow to save time engineering
- Intelligent bulk processing of data and devices helps prevent errors
- Simple, comprehensive project documentation with one mouse click





#### **Automation with Maximum Flexibility**

WAGO Application Building Control V1.1 offers additional interfaces and functions.

WAGO Application Building Control is a pre-programmed solution used in buildings and distributed properties. The new version 1.1 offers additional interfaces to integrate more sub-bus systems, including DALI-2, EnOcean®, KNX® and a Modbus-TCP connection, as well as additional functions for lighting and shading. The great advantage of this pre-programmed solution is that it requires no programming knowledge - commissioning and operation follow a simple approach based on configuring, not programming. Nonetheless, this application software offers users maximum flexibility and scalability for adapting to different demands. Also included: an integrated dashboard for attractive visualizations and alarms for limiting value and status monitoring. For global access to data, the solution can be connected to WAGO Cloud Building Operation and Control. This offers an easy way to get started with simple, efficient building management.

- Flexible adaptation to specific application requirements
- Easy commissioning with an approach based on configuring, not programming
- Freely definable and configurable functions





#### **Central Management of Distributed Properties**

WAGO Cloud Building Operation and Control offers easy cloud-based management of buildings.

The new solution allows distributed properties with local infrastructure and decentralized systems to be monitored and managed from a single central location. Individual building systems like heating, air-conditioning, ventilation, lighting and other electrical systems can be easily connected to WAGO Cloud via local automation and an IoT gateway. The cloud-based visualization provides facilities operators with a comprehensive overview of the information from all their properties at all times, which they can then use for comparisons and well-informed analyses - vital for optimizing processes and saving energy. Status and alarm notifications from the distributed properties can also be recorded centrally, providing benefits such as perfectly timing service and maintenance.

- Easy connection of distributed properties
- Central monitoring of sensor data and alarm limits
- Optimized service and efficient operation



#### Centralized, Location-Independent Lighting Operation and Monitoring

#### WAGO Lighting Management - Now with Cloud Connection and OPC UA Interface

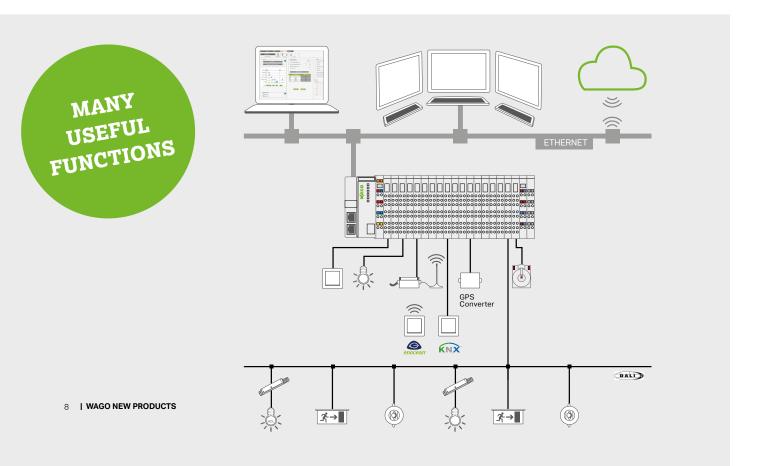
More and more users require the ability to monitor and manage the lighting of individual buildings or distributed properties from a central location. The new WAGO Lighting Management version 2.1 offers the ideal solution. Convenient cloud connection allows access to the equipment data at any time, from anywhere in the world. In addition to WAGO Cloud and WAGO Cloud Building Operation and Control, other cloud applications are supported, such as Azure, AWS, IBM, SAP and native MQTT. Since the application also supports multi-cloud connectivity, data can be provided to two cloud systems simultaneously and in parallel, allowing users to implement different tasks in the appropriate cloud application. In addition, WAGO Lighting Management now supports OPC UA to provide data to higher-level systems for further processing and evaluation. This makes all the equipment information available at any time, from anywhere in the world, via the cloud

connection and OPC UA interface. Additional advantages of the WAGO solution include easy configuration guided by the principle of "configuring, not programming," convenient, organized operation and central alarm and fault message management to notify users of equipment defects, irregularities and limit value violations.





- Location-independent operation and monitoring of lighting systems
- Centralized fault management
- Convenient analysis, processing and visualization of equipment data



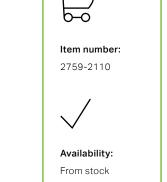


## Room Automation – Flexible, Efficient and Easy

New Functions and Options for WAGO Application flexROOM®

The flexROOM® application makes integrated room automation possible for lighting, sun protection and indoor climate control; the approach is based solely on configuring, requiring no programming. The segment-based concept supports modification of rooms and open spaces through variable wall positioning, even during use - no need to access or handle the cabling. The new version allows direct connection of Thermokon Sensortechnik GmbH's Novos Series Room Operating Units. It also supports an expanded selection of EnOcean® wireless room control units and sensors, so integrating the right control unit for your application is never a problem. MP-Bus is now an integral component of the flexROOM® application, allowing use of intelligent valve actuators for distributed sensors and cost-effective cabling. Even more options exist when it is combined with the WAGO Application Weather Station, which now offers shade correction and dynamic wind monitoring to optimize sun protection control. In addition, more safety functions have been added for

automatic retraction of the external facade hangings.



- With the integrated Web configuration, operators can make changes directly during use
- An expanded selection of room control units and sensors with direct support
- Shade correction and dynamic wind monitoring in combination with the WAGO Application Weather Station to optimize sun protection



#### Perfect Control, No Matter the Weather

#### WAGO Application Weather Station for Optimal Sunshade Control

This solution makes the measurement data of connected sensors from different manufacturers, such as temperature, precipitation, wind speed and light intensity data, available for further processing and display in a visualization or a management system. It also provides central functions like weather protection, automated glare protection and timer programs. Ever greater demands are being made on sunshade control, especially in larger projects. To meet them, the Application Weather Station offers two new functions. The shading correction also optimizes the supply of sunlight, using the shading caused by surrounding buildings as part of a shading analysis. The result: only the blinds that are actually in the sun are adjusted to the sun's position. The shaded windows' blinds can be raised, or their slats can be set horizontally to improve the supply of sunlight in the room. The "Dynamic Wind Monitoring" function offers selective weather protection. In the presence of strong winds, it only protects the shades that are actually at risk of damage according to a wind analysis. This means the slat tracking for glare-free operation and the automatic thermal control for reducing cooling loads can remain active for the remaining blinds, for example. Taking local wind profiles into account also provides better protection against damage.





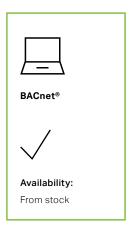
- A pre-programmed application and particularly easy integration in connection with WAGO Application flexROOM®
- Improved thermal support and glare protection through dynamic wind monitoring
- Shade correction optimizes the amount of daylight

#### **Even Greater Flexibility for Using BACnet®**

New Revision 22 is now available on additional WAGO devices, including S-license for up to 48 objects.

BACnet® is the key to open, interoperable building automation. WAGO now makes this open communication protocol for building automation networks available for the PFC200 Controller family, the Touch Panels 600 and the Edge Controllers by utilizing BACnet® Revision 22. The new revision supports a larger number of trend log objects. Data exchange between BACnet® and CODESYS has also been optimized. This reduces the cycle time, and more technical systems can be automated with one controller. Furthermore, the Network Port object is supported as a new BACnet® object for representing network information via BACnet®. The BACnet®-capable devices can be used in a building automation solution as BACnet® Building Controllers (BBCs) and can manage different numbers of objects depending on the specific license.

In addition to the licenses for up to 256 BACnet® objects and unlimited licenses, an "S-license" is now available for up to 48 objects for implementing smaller applications as well. All devices are BTL-listed, which is important for tendering processes. This ensures that the devices used are BACnet®-compliant and integrate seamlessly with other BACnet®-compliant devices.





- Devices with latest BACnet® Revision 22
- Scalability through different licenses
- More trend log objects thanks to performance optimization



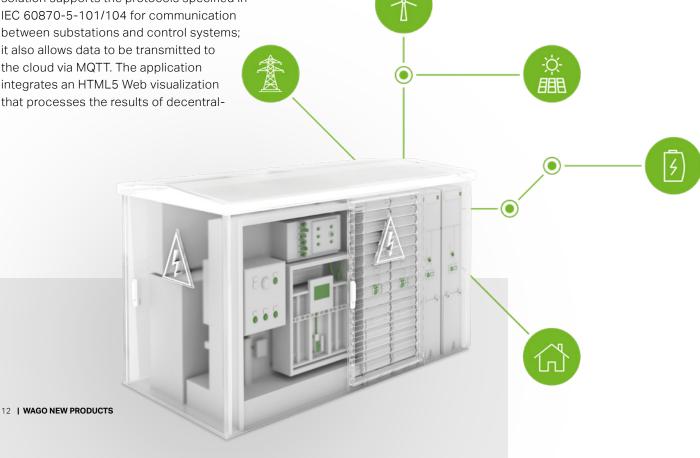
## Comprehensive Monitoring and Automation of Substations

WAGO Application Grid Gateway provides data transparency in power distribution networks.

The digitalization of distribution grid stations, also called substations or local network stations, is a core requirement for safe and efficient power distribution networks. WAGO Application Grid Gateway is the ideal solution for monitoring and automating these stations. It gives operators consistent data transparency for the power distribution network, enabling them to improve network management, operation and avoid unnecessary network expansion. Generation two of the application solution for the WAGO PFC200 (WAGO telecontrol technology) can measure, control and visualize electrical variables on both the medium-voltage and low-voltage sides of the transformer. Besides power measurement modules for the WAGO I/O System, flexible integration is also possible for sensors and actuators of devices from third-party vendors. The solution supports the protocols specified in IEC 60870-5-101/104 for communication between substations and control systems; it also allows data to be transmitted to the cloud via MQTT. The application integrates an HTML5 Web visualization that processes the results of decentralized data collection and prepares them for different user groups in a clearly organized way. The firmware is hardened per the BDEW White Paper, making it ready for critical infrastructures.

- Better assessment of grid performance through precisely measured values
- Improved network management and operation
- Hardened firmware for use in critical infrastructures







#### Integrate Analog Signals via IO-Link

#### The WAGO I/O System Field, Now with an Analog IO-Link Converter

The new Analog IO-Link Converter for the WAGO I/O System Field provides an economical, compact solution for easily incorporating conventional analog sensors and actuators into an IO-Link system. This also allows retrofit projects to be integrated into digital communication. IO-Link is used to reliably record and output analog signals. The new Analog IO-Link Converter offers customers a cost-effective option for analog value transmission with immunity to interference. The converter can be configured via IO-Link. For the version with a display, the parameters can also be set directly on the device. A compact design, IP67 protection and a high operating temperature range make the Analog IO-Link

Converter (U, I, RTD) ideal for automation without control cabinets.

- Easily convert analog signals with IO-Link
- Interference-free signal transmission
- · Compact design with IP67 protection
- · Ideal for retrofit projects



#### **More Power in Harsh Environments**

#### New PFC200 Controllers and Modules for the WAGO I/O System 750 XTR

WAGO is expanding its I/O System 750 XTR, which was engineered for demanding environmental conditions, with more powerful PFC200 Controllers\* and several new I/O Modules. The new PFC200 technology is based on G2 hardware and features a 1 GHz Cortex A8 CPU with 512 MB of RAM and a 4 GB eMMC for applications requiring high computing power or large storage space. A four-channel module for pulse width modulation (PWM) is also available, allowing all channels to be parameterized separately. Analog inputs for current and voltage measurements with four high-resolution channels and eight-channel low-side switching digital inputs and outputs are also new. The I/O System 750 XTR is designed for applications subjected to environmental extremes and harsh conditions. These include the energy sector, shipbuilding, offshore facilities and railway applications. The system boasts a high number of channels on a compact footprint, which saves valuable control cabinet space. The majority of the I/O modules are only 12 mm wide and offer up to 16 channels.

\* Each of the new compact 2nd generation controllers (G2) is equipped with two ETH-ERNET ports and RS-232/RS-485. They are available in three versions: a simple XTR variant, with telecontrol technology (Tele) and with interfaces for CAN, CANopen and PROFIBUS-DP slave.



#### Your benefits:

- The PFC200s' G2 hardware provides more processing power
- I/O System 750 XTR with new PWM module and low-side switching digital outputs
- Reliable even under extreme conditions



Item numbers:

PFC200 G2 2ETH RS XTR:

750-8212/040-000

PFC200 G2 2ETH RS Tele XTR:

750-8212/040-001

PFC200 G2 2ETH RS

CAN DPS XTR:

750-8216/040-000

24 VDC 3ms LSS 2-wire XTR:

750-1417/040-000 8DI

8DO 24 VDC 0.5A LSS

2-wire XTR:

750-1516/040-000

4AI U/I Diff Galv XTR:

750-471/040-000

Inc. Encoder 5 VDC 32bits XTR:

750-637/040-000

4PWM 24 VDC 0.2A XTR:

750-677/040-000\*

End Module 8\*N XTR:

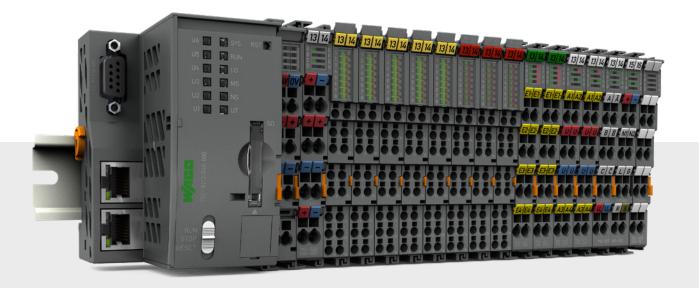
750-600/040-001



Availability:

From stock

\*Q2/2022





## New Safety I/Os for Better Performance and Greater Speed

Your benefits:

- Safe channel-specific acknowledgment per PROFIsafe V2.6
- Channel status for each input and output in the cyclic process image
- Meets the EN IEC 13849 and IEC 61511 standards
- For functional safety up to SIL 3;
   PLe/Cat. 4



Item numbers:

4FDI 24V PROFIsafe:

750-661/000-004

753-661/000-004\*

8FDI 24V PROFIsafe:

750-662/000-004

753-662/000-004\*

4FDI/2FDO 24V/10A

PROFIsafe:

750-666/000-004

4FDI/4FDO 24V/2A

PROFIsafe:

750-667/000-004 753-667/000-004\*



Availability:

On request

\*with pluggable connector

#### **New Module for Pulse Width Modulation**



#### Your benefits:

- Four channels in a width of only 12 mm (0.472 inch)
- Current carrying capacity up to 0.2 A per channel; switching frequency up to 20 kHz
- Adjustable operating modes for a wide variety of applications



Item number:

750-677



Availability:

Q2/2022

#### Simple MID-Compliant Measurement

#### WAGO's Energy Meters reliably measure your supply and consumption levels.

WAGO's 4-quadrant energy meters (MID) make energy measurement particularly easy and accurate; they're also certified for billing-related energy measurement throughout Europe thanks to compliance with the MID Directive 2014/32/EU. In addition to the values for active and reactive energy, all the meters also record the mains frequency, as well as current, voltage and power for all phases. This means the three-phase energy meters can also be used for three single-phase applications. Three versions of the energy meters are available. The direct meters with a width of 4 HP (72 mm) are available in two connection variants. The universal connection variants (4PU) have input and output terminals on the bottom of the device; in contrast, the devices marked 4PS have

their input terminal on the bottom and output terminals on the top.

This allows the devices to fit perfectly into existing systems too, and the selection can be based on the cable routing. The type 2CT transformer meters are only 2 HP (35 mm) wide, saving space on the DIN-rail right from the control cabinet planning stage. If the energy consumption meters are insufficient for direct connection with currents up to 65 A on a typical three-phase power network, flexible transformer meters can be used. Depending on the transformer ratio, these can also be used for very high currents. The lever connection technology with push-in technology allows fast tool-free device connection. The free WAGO Energy Meter Configurator app (available in German and English) supports



commissioning. It can intuitively set all the required parameters via a smartphone or tablet over a Bluetooth® connection. There are several ways to read out the values during operation: via the display, the app or connected energy management systems. The energy meters' large illuminated displays show users all important values at a glance; touch-sensitive operating elements allow them to operate the device directly on site as well. The WAGO Energy Meter Configurator app also displays the current values, which can also be saved in the app as a CSV report and sent via standard messenger services or email. All energy meters also have three integrated communication interfaces: M-Bus (Meter-Bus) and Modbus® interfaces and two S0 pulse outputs. This makes the energy meters true communication professionals and allows them to be either evaluated remotely or integrated into an energy management system.



#### Your benefits:

- Available in three versions to suit many requirements
- Easy installation and commissioning
- Many evaluation options



Item numbers:

Direct Meter (4PU):

879-3000

Direct Meter (4PS):

879-3020

Transformer Meter

(4PUCT):

879-3040



Availability:

From stock







Download the WAGO Energy Meter Configurator now.

### New Power Supply for WAGO DALI Multi-Master

#### WAGO Compact Power Supply with 18 VDC Output Voltage

Building automation applications rely on DALI for lighting management, which requires a constant supply voltage of 18 VDC for the WAGO DALI Multi-Master (Item No. 753-647). To meet this requirement, WAGO is expanding its portfolio with the new WAGO Power Supply Compact (Item No. 787-2857). This unit can supply up to six WAGO DALI Multi-Masters (Item No. 753-647) with a permanent 18 V output voltage and a maximum output current of 1.25 A. The combination of DALI Multi-Master and Compact Power Supply is DALI-2 certified. In addition to the requirements for DALI applications within the WAGO I/O System, this power supply boasts a slim design only 36 mm (2 DU\*) wide that is perfect for use in installation distribution boards thanks to the rail-mount housing per EN 43880. With its high efficiency (> 88 %), the power supply is also extremely efficient and durable. It can be wired quickly and easily by directly inserting conductors using the push-in connection technology.

\* DU = Division Unit(s)





- 18 V power supply for DALI Multi-Master (Item No. 753-647)
- Housing design per EN 43880
- Module width of just 36 mm (2 DU)
- Push-in termination technology





#### Reliably Supplied with 3-Phase Pro 2

#### 24 VDC Even under Harsh Environmental Conditions

With the 3-phase Pro 2 Power Supplies, WAGO is expanding its selection of power supplies even further. For example, many control cabinets in machines and equipment use three-phase power because high power is required to supply drive technology. To maintain a consistent design, and because there is no neutral conductor, the power supply units that generate the control voltages are supplied with three-phase power. And even if one phase fails, WAGO's 3-phase Pro 2 Power Supplies still generate the control voltage required by the control system, sensors and actuators - reliably and at full power. As with all Pro 2 devices, you can establish a permanent connection between the devices and controller by snapping on an optional communication module (IO-Link, Modbus RTU or Modbus TCP). This allows the power supplies to provide data seamlessly and detect even the tiniest anomalies that indicate a fault in the connected load. The devices can be configured either remotely via the communication module or on site with the free configuration software. Parameters like output voltage and overload behavior or the digital output can be adjusted precisely to your requirements and can also be simulated in advance. The threephase devices are also available with DNV approval (2787-2xxx/000-030). They meet the strict requirements for maritime use, such as higher shock and vibration resistance and excellent EMC properties per the DNV requirements. The optional protective coating on the devices (2787-2xxx/000-070) provides additional protection against harmful gases, salt spray and moisture. This allows use in process engineering and critical infrastructures.

#### Your benefits:

- Reliable power even if one phase fails
- Continuous communication for analysis of connected loads
- DNV approval
- Optional coating



#### Item numbers: 3-PH/24VDC:

2787-2344 (5 A) 2787-2346 (10 A) 2787-2347 (20 A) 2787-2348 (40 A)

#### 3-PH/24VDC

#### (with DNV approval):

2787-2344/000-030 (5 A)\* 2787-2346/000-030 (10 A)\* 2787-2347/000-030 (20 A) 2787-2348/000-030 (40 A)

#### 3-PH/24VDC

#### (with DNV approval and protective coating):

2787-2344/000-070 (5 A)\* 2787-2346/000-070 (10 A)\* 2787-2347/000-070 (20 A) 2787-2348/000-070 (40 A)

#### 3-PH/48VDC:

2787-2357 (10 A) 2787-2358 (20 A)



#### Availability:

On request

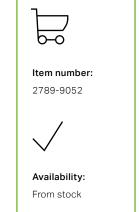
\* July 2022

#### **Communicate Quickly and Reliably**

Pro 2 now also supports both Modbus TCP and UDP ETHERNET protocols.

In addition to IO-Link and Modbus RTU, WAGO's Pro 2 Power Supplies now also communicate via ETHERNET. The new communication module (Item No. 2789-9052) supports the Modbus TCP and Modbus UDP ETHERNET protocols and has an integrated Webserver. This saves both time and money. Users find operation intuitive, and the process requires no expert knowledge. Sending a maintenance team through the production hall was yesterday - today, the current status can be viewed conveniently via browser. In addition, readjustments can be made at any time via the Webserver, allowing system failures to be prevented by being caught early. The communication module can also be retrofitted to existing WAGO Power Supplies Pro 2 and rapidly transmits incredibly high data volumes. Whether it's output voltage, output current, boost and overload behavior, switch-on behavior, signaling, warning thresholds and much more - everything can be adjusted or monitored within milliseconds and independently of personnel qualification. Control system integration via OPC is also easy thanks to Modbus TCP and Modbus UDP protocol support. All of this saves

costs during commissioning, maintenance and operation, while increasing reliability and availability.



- Communication module can also be plugged in later, making it future-proof
- Online parameterization and monitoring for quickly reacting to changes in the application
- Direct access to all features of WA-GO's Pro 2 Power Supplies

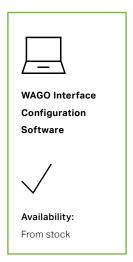




#### **Consistent Parameterization**

#### New Features of WAGO's Interface Configuration Software

The Interface Configuration Software is WAGO's free tool for configuring the Pro 2 Power Supply, the signal conditioners and the isolating amplifiers - and now the UPS chargers and controllers too. The integration of WAGO's UPS control software, which had been available separately, saves time and effort during installation and use. The configuration options are just as varied as the possible uses. In addition to the output voltage, the Pro 2 Power Supply's configuration function lets you parameterize the overload behavior, such as TopBoost, PowerBoost or the electronic circuit breaker functionality. In mechanical engineering applications, the latter ensures compliance with EN 60204 requirements concerning the disconnection of hazardous ground faults within five seconds. Besides adjusting the buffer threshold and buffer time, the UPS chargers and controllers also offer a whole series of additional configuration options to ensure an uninterrupted power supply during a power outage and a reliable flow of information. Intuitive visualization of currents and voltages in the UPS applications helps you grasp the on-site conditions at a glance. The Pro 2 Power Supply simulation function in the Interface Configuration Software goes one step further, allowing the selected configuration to be tested even without a device. With this function, users can determine the optimal configuration in advance – or they can use it just to explore the many options the Pro 2 Power Supply offers.





#### Your benefits:

- WAGO's Interface Configuration Software now also supports the UPS chargers and controllers
- Users benefit from the simulation mode for the Pro 2 Power Supply
- Monitoring and comprehensive parameterization of power supplies, UPS units, signal conditioners and isolating amplifiers



Download software now: wago.com/interface-configuration-software

#### **Function Terminal Block Now Available** with Push-Button

WAGO adds a new actuation variant to the range of 6 mm<sup>2</sup> function terminal blocks.

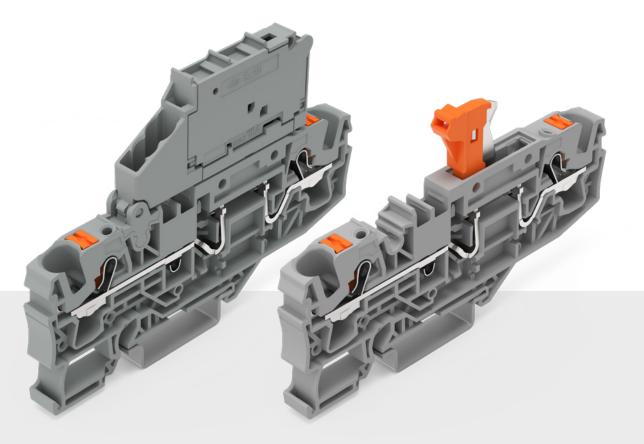
The new 6 mm² function terminal block with a push-button will join WAGO's portfolio of TOPJOB® S Rail-Mount Terminal Blocks - a perfect addition to the existing push-button portfolio. The function terminal block, which can be used as a fuse terminal block, disconnect terminal block or through terminal block, is incredibly compact despite the pivoting fuse holder and test ports on both sides. With the push-button, it now also boasts especially simple handling and clear organization, making it easier to see where the operating tool needs to be inserted. Like the other 2206 and 2006 Series terminal blocks, the function terminal block with push-button is compatible with WAGO's jumper and marking system. It is used primarily in railway engineering – specifically for signaling block

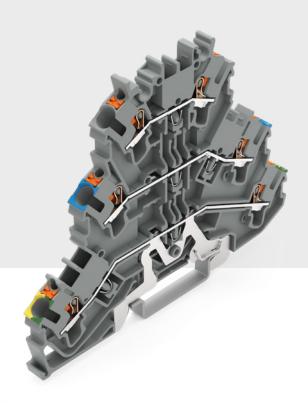
systems - but also in power engineering, the manufacturing and process industry and the marine and offshore sector.



- Push-button for easy use: The orange actuator is visually prominent, and the operating tool is freely selectable.
- Push-in CAGE CLAMP® termination for fast wiring
- Compact design







#### New Triple-Deck Terminal Block with Push-Button

WAGO expands its TOPJOB® S portfolio.

The new triple-deck terminal block with push-button, item no. 2202-32xx (nominal cross-section: 2.5 mm²), joined the through terminal block portion of WAGO's rail-mounted terminal block portfolio. With this addition, triple-deck terminal blocks will now also be available with push-buttons to complement the existing push-button terminal blocks. The push-button provides clearer organization, making it easier to see where the operating tool needs to be inserted. The most impressive feature of the new multilevel terminal block is its space-saving, compact design that's constructed horizontally rather than vertically. In this version, the test slot is integrated directly into the push-button to save even more space. This means it has the same profile as the existing 2002 Series, which makes the switch from an operating slot to a push-button straightforward. The marking and the end plate can be kept the same. The expansion fits seamlessly into the existing TOPJOB® S series and is compatible with all

other TOPJOB® S products, such as jumpers and marking strips. This compact solution saves space, finding it favor in the manufacturing and process industry, and in railway technology and power engineering. The new triple-deck terminal block with push-button is available in the standard housings: gray, blue and green/yellow (for PE), with or without internal commoning.





- Compact design saves space
- Push-button provides a clear layout
- Switching the triple-deck terminal block from an operating slot to a push-button is easy

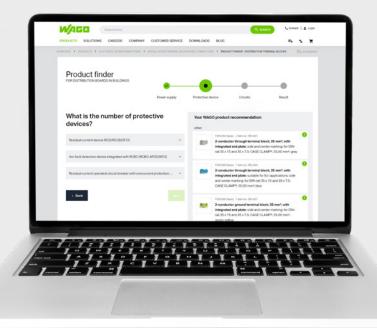


The product finder is helpful when planning and designing buildings.



Test the product finder now:

www.wago.com/global/product-finder-distribution-terminal-blocks



#### The New Product Finder for Multilevel Installation Terminal Blocks

#### Easy Advance Planning of Distribution Boards in Buildings

Select the installation environment for your building's distribution board with a few mouse clicks, and the new free online configurator for multilevel installation terminal blocks gives you an assortment of suitable terminal blocks. This makes it easy to plan and tailor a building's distribution board to the specific application. The software tool first prompts you for general information, such as the circuit breakers you're using or the conductors you want to connect. It then uses this information to automatically generate a selection of suitable multilevel installation terminal blocks for each project. The product finder also lists the new terminal blocks with push-buttons and the hybrid variants, which feature a tool-operated connection on one side and push-button on the other. A bonus: You can easily transfer the planned installation to WAGO's Smart Designer configurator as a compact

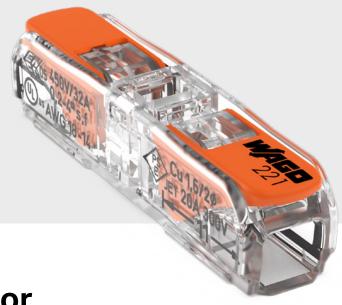
terminal block and then view it in 3D, expand it and export it there.



- Automatic selection of suitable multilevel installation terminal blocks for any application
- Easier advance planning for distribution boards in buildings
- Easy transfer to WAGO Smart Designer as a compact terminal block



## UNIVERSAL CONNECTION



#### Connect All Conductor Types – at Once

WAGO's 221 Series Inline Splicing Connectors offer a slim design and tool-free conductor connection.

Truly a standard-setting solution for all conductor types from 0.2 to 4 mm² (stranded only up to 2.5 mm²), the new 221 Series Inline Splicing Connector with levers represents superior safety, simplicity and ease of install. WAGO's Inline Splicing Connector condenses the industry-leading 221 Series Splicing Connectors' advantages into a slim design. Offering unsurpassed simplicity, speed and reliability, the 221 Series levers provide tool-free universal conductor connection and a transparent housing that allows users to confirm conductor contact at a glance. Where multiple poles are required, optional adapters provide completely

modular mounting. Users get the flexibility of having five fixed-position poles in one adapter – whether it's with or without strain relief, on DIN-rails with a snap-in mounting foot, for screw mounting, adhesive mounting, tie-on mounting or suspended mounting. As a universal connection technology, the 221 Series Inline Splicing Connector's compact dimensions not only improve your current installations, the small footprint also opens up a wide variety of new applications. These include space-restricted applications like laboratory and testing, production test bays, lighting connection in suspended ceilings, or extending loudspeaker cables and distri-



bution boxes in industrial applications. Two variants of the inline splicing connector are available, both with EN and UL approvals: one version has a transparent cover for conductor cross-sections from 0.2 to 4 mm² (stranded only up to 2.5 mm²) for all standard applications. The other version uses a white cover (favored in North America) for the extended connection range with AWG-12 conductors.

#### Your benefits:

- Inline connection of solid, stranded and fine-stranded conductors from 0.2 to 4 mm² (stranded only up to 2.5 mm²)
- Slim design saves space in tight areas
- Tool-free connection and disconnection thanks to convenient lever technology
- Use a mounting carrier for fixed and multi-pole wiring



Item number:

Transparent housing, white cover:

221-2401

Transparent housing, transparent cover:

221-2411



Availability:

From stock

## Field Connection with Lever – Now Also for 2.5 mm<sup>2</sup>

The powerful MCS MIDI allows convenient, tool-free wiring of conductors with cross-sections up to 2.5 mm<sup>2</sup>.

The MCS MIDI 1-conductor female connector will soon be available with a lever for conductor cross-sections from 0.14 to 2.5 mm² (26 to 12 = AWG) and 5 mm pin spacing. It boasts an ideal combination of high performance, compact design and convenient lever operation, providing the missing link in the connector family of WAGO's MULTI CONNECTION SYSTEM (MCS). Lever operation makes manual wiring easy. The lever requires no tools and allows intuitive operation.

Thanks to the Push-in CAGE CLAMP®, solid and fine-stranded conductors with ferrules can be connected by simply pushing them into the unit. The connector has a current carrying capacity of up to 16 A and an overall height of just 11.5 mm. It can be used in drive controllers, converters and power supplies, for example. This pluggable PCB connector is available in two versions: MCS MIDI Classic and MCS MIDI with 100% protection against mismating. For maximum safety for field





connections, the MIDI pluggable connection systems are available with a center or side locking lever upon request. The pluggable connection system allows optional direct marking.



#### Your benefits:

- Tool-free manual wiring thanks to lever operation
- Push-in CAGE CLAMP® termination
- Powerful pluggable PCB connector for up to 16 A
- Compact design for conductor cross-sections up to 2.5 mm²



Item numbers:

MCS MIDI Classic:

2231-11xx

MCS MIDI 100%

Mismating Protec-

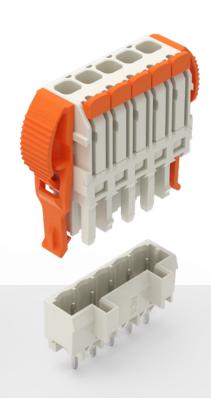
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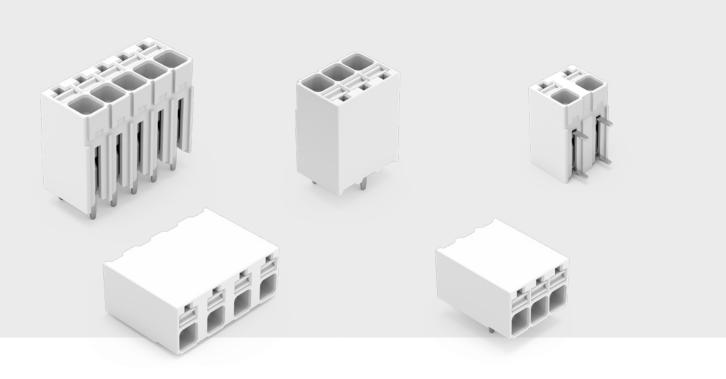


Availability:

Q4/2022







#### More Variants for the 2086 Series

The compact PCB terminal block with push-button is now available in white for lighting applications and as a THR variant in tape-and-reel packaging.

Versatility and usability, all in a compact design – the 2086 Series PCB Terminal Block with Push-in CAGE CLAMP® and push-button. This PCB terminal block is now also available in white and as a THR variant in tape-and-reel packaging. Its compact design and connection range from 0.14 to 1.5 mm² make the 2086 Series extremely versatile. Solid and ferruled conductors are connected by simply pushing them into unit. The conductor connection and mating di-

rection can be either parallel or perpendicular to the PCB; the push-button moves in the direction of the cable connection. Thanks to its white color, the 2086 Series is ideal for the lighting industry. For example, it can serve as a through-panel connector, directly on a device driver or on an LED module. In addition to the SMD version, the THR version is now also available in tape-and-reel packaging for full integration into the SMT process, which makes assembly significant-



ly easier. Both the white SMD variants and the black 2086 Series THR and SMD PCB terminal blocks are available in tape-and-reel packaging.

- The white PCB terminal block is ideal for lighting connection technology.
- Push-in CAGE CLAMP® terminates both solid and ferruled conductors from 0.14 to 1.5 mm2 by simply pushing them into unit.
- For easier assembly, the THR and SMD variants are supplied in tapeand-reel packaging.



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