



Automation Technology and WAGO Electronic Interface

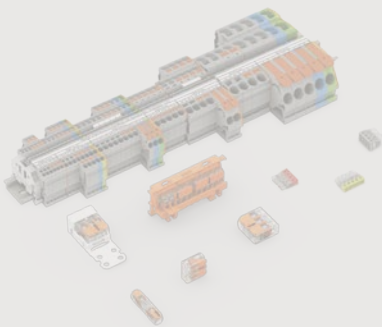
Supplementary Catalog to Full Line Catalogs, Volumes 3/4/6

Edition 2022/2

WAGO

WAGO Rail-Mount Terminal Blocks and Connectors 1

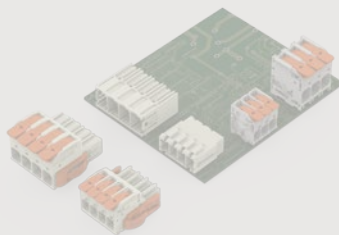
Full Line Catalog, Volume 1 – Edition 2021/2022



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WAGO PCB Terminal Blocks and Connectors 2

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Automation Technology 3

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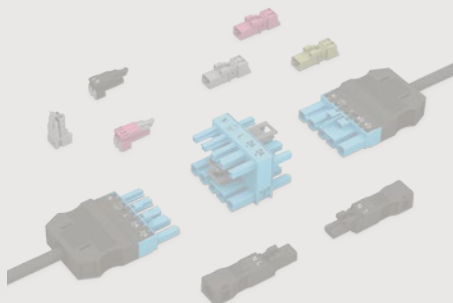
Full Line Catalog, Volume 4 – Edition 2021/2022



WAGO

WAGO Pluggable Connection System WINSTA® 5

Full Line Catalog, Volume 5 – Edition 2021/2022



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WAGO Marking 6

Full Line Catalog, Volume 6 – Edition 2021/2022






The new items in this catalog supplement products found in the following main catalogs

N 3/4/6



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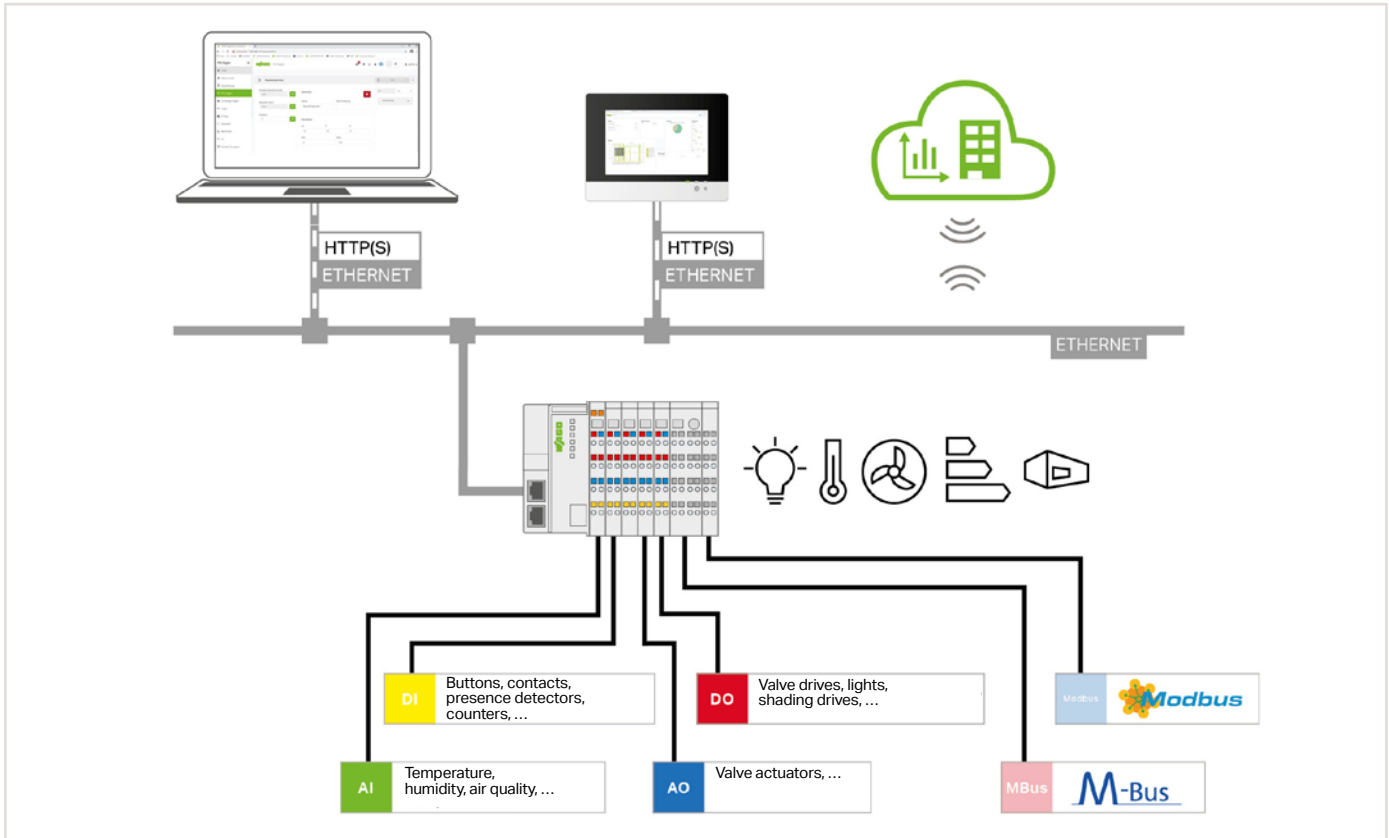


Radio Technology

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Products highlighted in RED are new items for Autumn 2022.

WAGO Application Building Control



WAGO Application Building Control is a pre-programmed software solution for building automation applications.

- The application is ideal for virtually all building automation functions, such as lighting control, HVAC control, and energy data management.
- Despite pre-programming, it is possible to define almost any data points that can be linked together, put into dependency with each other or provided with control and regulating functions.
- The application has an integrated dashboard for advanced visualization options.
- Commissioning is performed through a configuration interface, following the design principle of "configuration instead of programming."

Advantages:

- Easy configuration, commissioning and operation without programming knowledge
- Highly versatile
- High flexibility and scalability for adapting to different needs
- Integrated monitoring, alarming for limit violation and status monitoring
- Optional connection to WAGO's "Cloud Building Operation and Control" cloud solution for access to all of the data from anywhere in the world

Benefits:

- High cost efficiency and profitability thanks to quick and easy commissioning
- User-friendly and intuitive visualization and operation
- High functional safety and reliability thanks to pre-programmed and tested functional units

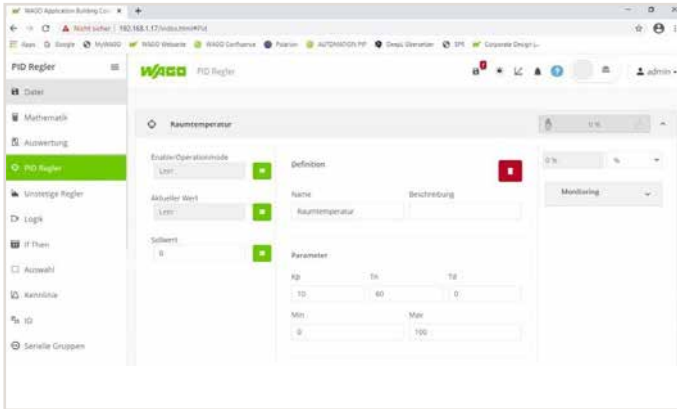
Item Description	
	Item No.
WAGO Application Building Control; Single License; Online Activation	2759-2120/261-1000
Compatible Controllers	
Controller PFC200; G2; 2ETH RS	750-8212

Delivery type	License certificate by email (software available for download)
For data sheet and additional information, see:	wago.com/2759-2120/261-1000

The "WAGO Application Building Control" software is a pre-programmed application based on the e!COCKPIT Development Environment and can be used for PFC200 G2 Controllers.

To download the application and license to the device, WAGOupload software is required, which can be obtained free of charge from the WAGO homepage. Internet connection may be required for license activation.

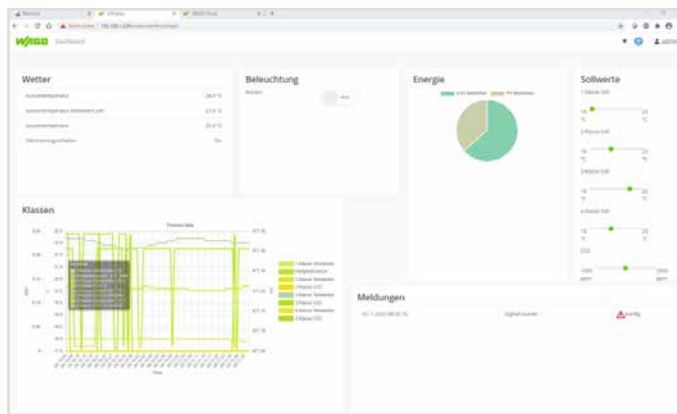
A single license allows installation on one controller. One license per controller is required.



Configuration Screen

Data point catalog

- Central list of all configured data points (inputs, outputs, functions, dashboard elements)
- The input value, e.g., for a function or an output is selected from the data point list.
- Search function for finding the desired data point (helpful for long lists of larger applications)



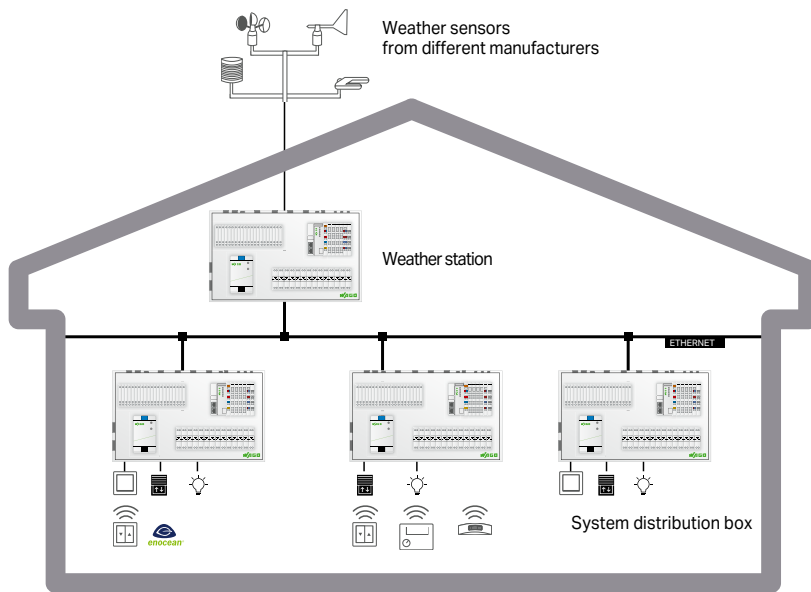
Dashboard

The integrated dashboard offers a freely configurable visualization interface for the display of current system values and states and the possibility of operator interventions

The I/O modules (type and number) connected via the local bus are automatically detected and displayed in the application for further configuration.

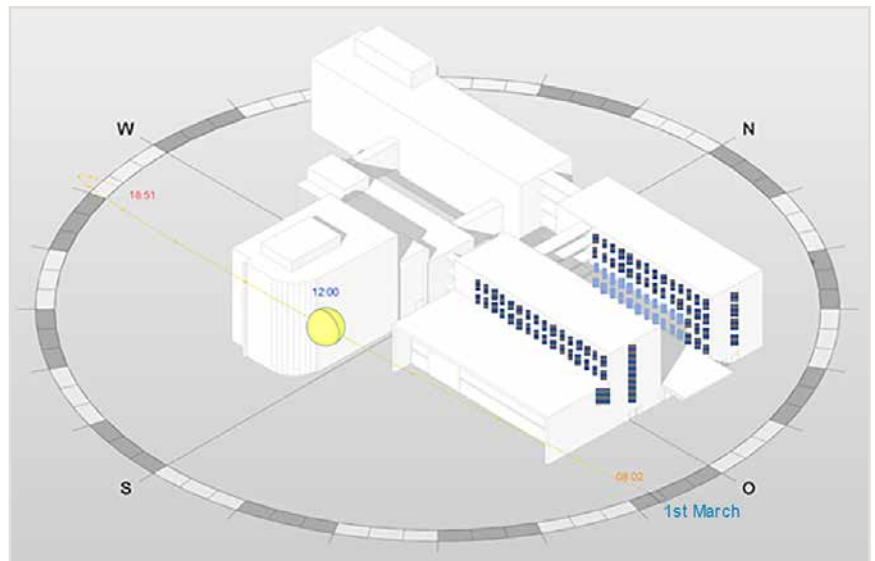
WAGO Application Building Control			
Supported I/O modules as interfaces for the connection of sensors and actuators		Item No.	
Quantity	Digital Input Modules		
	10	2-Channel Digital Input; 230 VAC	750-405
		4-Channel Digital Input; 24 VDC; 3 ms	750-402
		4-Channel Digital Input; 120/230 VAC	753-440
		8-Channel Digital Input; 24 VDC; 3 ms	750-430
		8-Channel Digital Input; 24 VDC; 3 ms; 2-Wire Connection	750-1415
		16-Channel Digital Input; 24 VDC; 3 ms	750-1405
10	Analog Input Modules		
		2-Channel Analog Input; for Pt100/RTD Resistance Sensors	750-461
		2-Channel Analog Input; 4 ... 20 mA; Single-Ended	750-466
		2-Channel Analog Input; 0 ... 10 VDC; Single-Ended	750-467
		4-Channel Analog Input; 4 ... 20 mA; Single-Ended	750-455
		4-Channel Analog Input; 0 ... 10 VDC; Single-Ended	750-459
		4-Channel Analog Input; Voltage/Current; Differential Input; 16 Bits; Diagnostics	750-471
	8-Channel Analog Input; 0 ... 10 VDC/±10 V; Single-Ended	750-497	
10	Analog Temperature Input Modules		
		8-Channel Analog Input; Resistance Measurement; Adjustable	750-451
	4-Channel Analog Input; Resistance Measurement; Adjustable	750-450	
10	Digital Output Modules		
		4-Channel Digital Output; 24 VDC; 0.5 A	750-504
		2-Channel Relay Output; 250 VAC; 1 A; Potential-Free; 2 Changeover Contacts	750-517
		8-Channel Digital Output; 24 VDC; 0.5 A	750-530
		8-Channel Digital Output; 24 VDC; 0.5 A; 2-Wire Connection	750-1515
	16-Channel Digital Output; 24 VDC; 0.5 A	750-1504	
10	Analog Output Modules		
		2-Channel Analog Output; 0 ... 10 VDC	750-550
		2-Channel Analog Output; 0 ... 10 VDC; 10 Bits; 100 mW/24 V	750-560
		4-Channel Analog Output; 0 ... 10 VDC	750-559
	8-Channel Analog Output; 0 ... 10 VDC/±10 V	750-597	
4	RS-232/485 Serial Interface Modules		
	Serial Interface RS-232/485	750-652	
4	M-Bus Modules		
	M-Bus Master	753-649	

WAGO Application Weather Station, Shadow Correction



The “Shadow Correction” function extends the sun position-dependent slat tracking and additionally optimizes the supply of daylight in the rooms. It takes the shading caused by surrounding buildings and vegetation into account according to an existing shading analysis for the specific property. As a result, only the blinds that are actually in the sun are adjusted to the sun’s position. Blinds of the shaded windows can be raised, or their slats can be set in a horizontal position, to improve the supply of sunlight in the room, increasing workplace comfort.

Note:
 This is an additional function for the WAGO Application Weather Station.
 A license is required for productive use of the “Shadow Correction” function without time restriction. The full scope of this function can be used for evaluation without a license for 30 days.
 To download the license to the device, WAGOupload software is required, which can be obtained free of charge from the WAGO homepage.
 Internet connection may be required for license activation.



Item Description	Item No.
Application Weather Station; Shadow Correction; Single License; Online activation	2759-242/261-1000
Compatible Controllers	
Controller PFC200; G2; 2ETH RS	750-8212

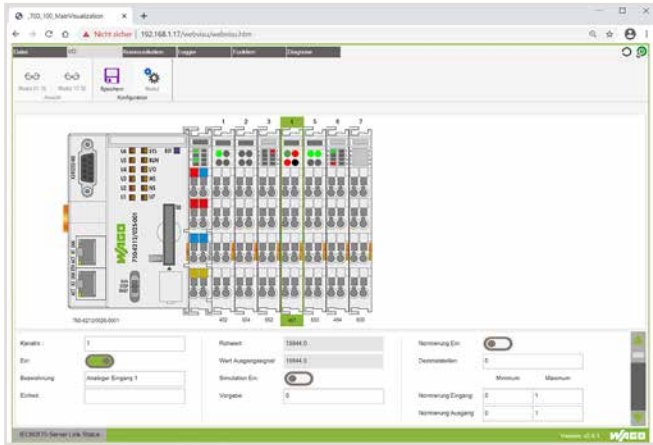
A single license allows installation on one controller. One license per controller is required.

Delivery type	License certificate by email (software available for download)
For data sheet and additional information, see:	wago.com/2759-242/261-1000

The “Application Weather Station; Shadow Correction” software is a pre-programmed application based on the e!COCKPIT Development Environment and can be used for PFC200 G2 Controllers.

To download the application and license to the device, WAGOupload software is required, which can be obtained free of charge from the WAGO homepage. Internet connection may be required for license activation.

WAGO Application Grid Gateway



Setting application parameters via HTML-5 WEB visualization



Example: Grid Gateway Distribution Box

WAGO Grid Gateway Application supports power distribution grid operators in assessing the grid performance. This application allows grid operators to use their existing distribution grid more efficiently, while avoiding unnecessary grid expansion. The measurement technology required in the substation for both the transformer and low-voltage outputs can be easily retrofitted.

The measurement values of the medium voltage, transformer, low-voltage outputs, valve positions and temperatures are transmitted to the grid control system via IEC 60870-5-104. Commands and setpoints can also be received and processed. External measurement systems such as short-circuit/ground-fault direction indicators can be easily parametrized via Modbus RTU. The entire parameterization can be stored in a clear manner and, if necessary, added to other stations. The option of simulating measured data makes it possible to commission new substations at the station builder's location from the grid control system without the field side being connected.

All data, for example the measured values from the low-voltage outputs, can be communicated via MQTT to a cloud.

Asset managers can more accurately plan substation maintenance cycles by accessing both stored data and digital drag indicators. Grid managers are prepared for local situations, having remote access for maintenance and errors in the grid. Remote updates for software modules and extensions are possible, eliminating unnecessary in-the-field service. Upon request, WAGO will provide you a hardware solution tailored to your customers' substations.

Patch and device management is available for the administration of a large number of distributed telecontrol devices with the WAGO Application Grid Gateway. This enables application updates, configuration changes, security patches and firmware upgrades, among other things.

Item Description	Item No.
Application Grid Gateway; Single License; Online activation	2759-2015/261-1000
Application Grid Gateway; Single License	2759-2015/260-1000
Accessories	
Custom/tailored system distribution boxes (e.g., for use in substations) are available	upon request
Compatible devices	
PFC200; G2; 4ETH	750-8210
PFC200; G2; 4ETH; T	750-8210/025-000
PFC200; G2; 4ETH; XTR	750-8210/040-000
PFC200; G2; 2ETH 2SFP	750-8211
PFC200; G2; 2ETH 2SFP; XTR	750-8211/040-000
PFC200; G2; 2ETH RS	750-8212
PFC200; G2; 2ETH RS; TELE; T	750-8212/025-001
PFC200; G2; 2ETH RS; TELE; T; ECO	750-8212/025-002
PFC200; G2; 2ETH RS; XTR	750-8212/040-000
PFC200; G2; 2ETH RS; Tele; XTR	750-8212/040-001
PFC200; G2; 2ETH M12; RS; XTR	750-8212/040-010
PFC200; G2; 2ETH RS; 4G	750-8217
PFC200; G2; 2ETH RS; 4G; T	750-8217/025-000

Technical Data	
Number of LV outputs	Up to 17 LV outputs
Firmware	Hardening in compliance with BDEW White Paper
Patch/device management	Application updates, configuration changes, security patches and firmware upgrades
Communication to the grid control system	IEC 60870-5-104
Communication to the office network	HTTPS, MQTT
Memory required on the SD card	Less than 2 MB measurement data per day for 15 LV outputs
Authentication	Local, LDAP
User groups	Grid manager, grid technician, grid planner, asset manager, administrator
Network interfaces	Secure separation between SCADA and office networks
Delivery type	License certificate by email (software available for download)
Data sheet and additional information, see:	wago.com/2759-2015/261-1000

An Internet connection to the PC that's equipped with *e!COCKPIT* is required for online license activation. A single license allows installation on one controller. One license per controller is required.

Runtime Software

e!RUNTIME; BACnet/IP

Function:

“Building Automation and Control Networks” (BACnet) is a data transfer protocol for building automation that simplifies communication between products from different manufacturers. The PFC200 Controller (2nd generation), WAGO Touch Panel or Edge Controller can be operated as a BACnet building controller and supports the B-BC device profile with all major BACnet objects and interoperability building blocks (BIBBs). The device communicates via BACnet/IP and offers the functionality of a BACnet® Client and BACnet® Server.

To use BACnet/IP, it is necessary to equip the device with a license.

The BACnet® network is configured via WAGO BACnet® Configurator and e!COCKPIT Engineering Software.

Benefits:

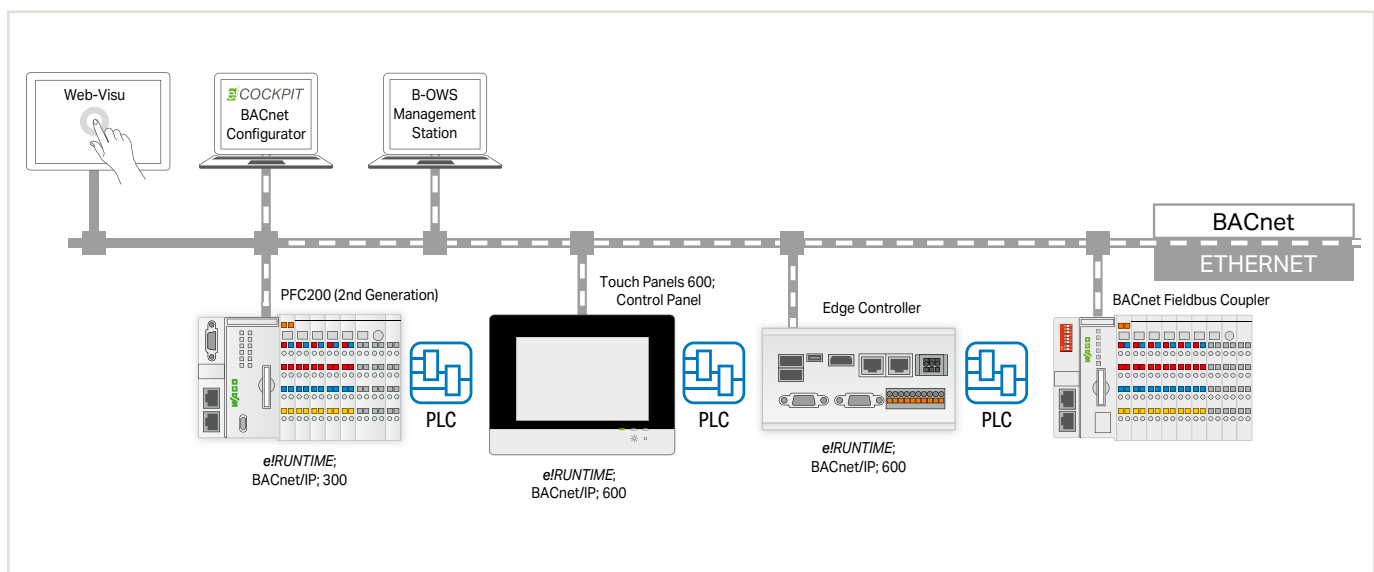
- Use the device as a BACnet Building Controller (B-BC)
- Control and detect distributed I/O signals from WAGO BACnet/IP Couplers via BACnet® Fieldbus Protocol
- Data exchange with other BACnet® Devices as a BACnet® Client or Server

Use:

Enter the license into e!COCKPIT, assign it to a device and load both the license and project into the controller. No other installation steps are required.

Technical Data:

See “Protocol Implementation Conformance Statement” (PICS)



Item Description	
e!RUNTIME; BACnet/IP; 300; S; up to 48 BACnet® objects	Item No.
Single License; Online Activation	2759-2273/211-1000
Compatible Controllers	
PFC200; G2; 4ETH	750-8210
PFC200; G2; 2ETH 2SFP	750-8211
PFC200; G2; 2ETH RS	750-8212
PFC200; G2; 2ETH CAN	750-8213
PFC200; G2; 2ETH RS CAN DPS	750-8216
PFC200; G2; 2ETH RS; 4G	750-8217

Item Description		
e!RUNTIME; BACnet/IP; 600; S; up to 48 BACnet® objects	Item No.	
Single License; Online Activation	2759-2276/211-1000	
Compatible Devices		
Hardware Configuration PIO 3	Touch Panel 600 Standard Line	762-43xx/8000-002
	Touch Panel 600 Advanced Line	762-53xx/8000-002
	Touch Panel 600 Marine Line	762-63xx/8000-002
WAGO Edge Controllers	752-8303/8000-002	

Besides the basic controller variants listed here, the license can also be used on these controllers' variants (PFC200 XTR .../040-000; extended temperature range .../025-xxx and telecontrol technology .../xxx-001 and -002). For details, see the product information of the corresponding controller.

Minimum firmware version	Firmware (18)
Minimum e!COCKPIT version	V1.8
Delivery type	License certificate via email (e!COCKPIT already contains the software itself)
For data sheet and additional information, see:	wago.com/2759-02273/211-1000 wago.com/2759-02276/211-1000

An Internet connection to the PC that's equipped with e!COCKPIT may be required for license activation. A single license allows installation on one device. One license per device is required.

BACnet® is a registered trademark of the American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. (ASHRAE).

Runtime Software

e!RUNTIME; OPC UA Server Extended

Function:
 "OPC Unified Architecture" (OPC UA) is a platform-independent and service-oriented architecture. It is used to describe and transport data. Because the services are independent, devices from different manufacturers can be interconnected.

The OPC UA server can release PFC200 Series, Touch Panel 600 and Edge Controller runtime data to a product in the network when it meets the required preconditions. The device must have an ETHERNET interface that can be used for communication and have the memory capacity and processing time required by the server.

The "OPC UA Server Extended" license activates an extended range of functions for the OPC UA server.

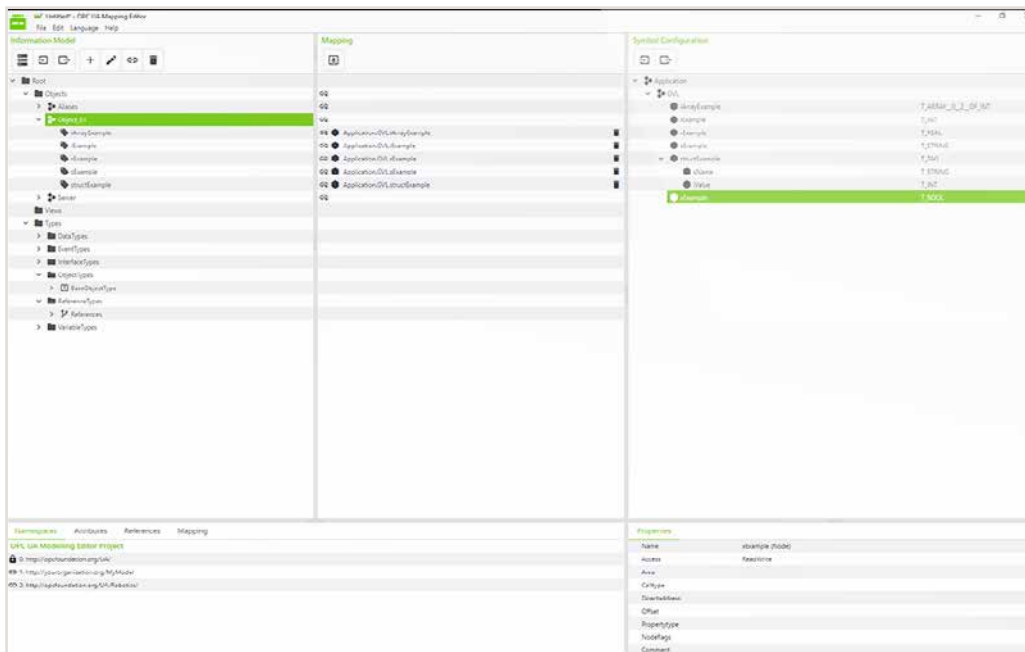
Extended functional range:
 Mapping the "PLCopen" information model to any other information model.

By default, WAGO controllers use the "PLCopen" information model to provide data for other applications. The OPC UA Mapping Editor can be used to map this information model to any other OPC UA model, for example, to OPC UA base models such as "Robotics" or "Euro-map77".

To use other, arbitrary information models, it is necessary to equip the device with a license.

Mapping to other, arbitrary information models is performed via the WAGO OPC UA Mapping Editor.

Benefits:
 Mapping the "PLCopen" information model to any other information models



Item Description		
e!RUNTIME; OPC UA Server Extended; 300		Item No.
Single License; Online Activation		2759-2233/211-1000
Compatible Controllers		
PFC200; G2		750-821x/xxxx-xxxx
Item Description		
e!RUNTIME; OPC UA Server Extended; 600		Item No.
Single License; Online Activation		2759-2236/211-1000
Compatible Devices		
Hardware Configuration PIO 3	Touch Panel 600 Standard Line	762-43xx/8000-002
	Touch Panel 600 Advanced Line	762-53xx/8000-002
	Touch Panel 600 Marine Line	762-63xx/8000-002
Hardware Configuration PIO 2	Touch Panel 600 Standard Line*)	762-42xx/8000-001
	Touch Panel 600 Advanced Line*)	762-52xx/8000-001
	Touch Panel 600 Marine Line*)	762-62xx/8000-001
WAGO Edge Controller		752-8303/8000-002

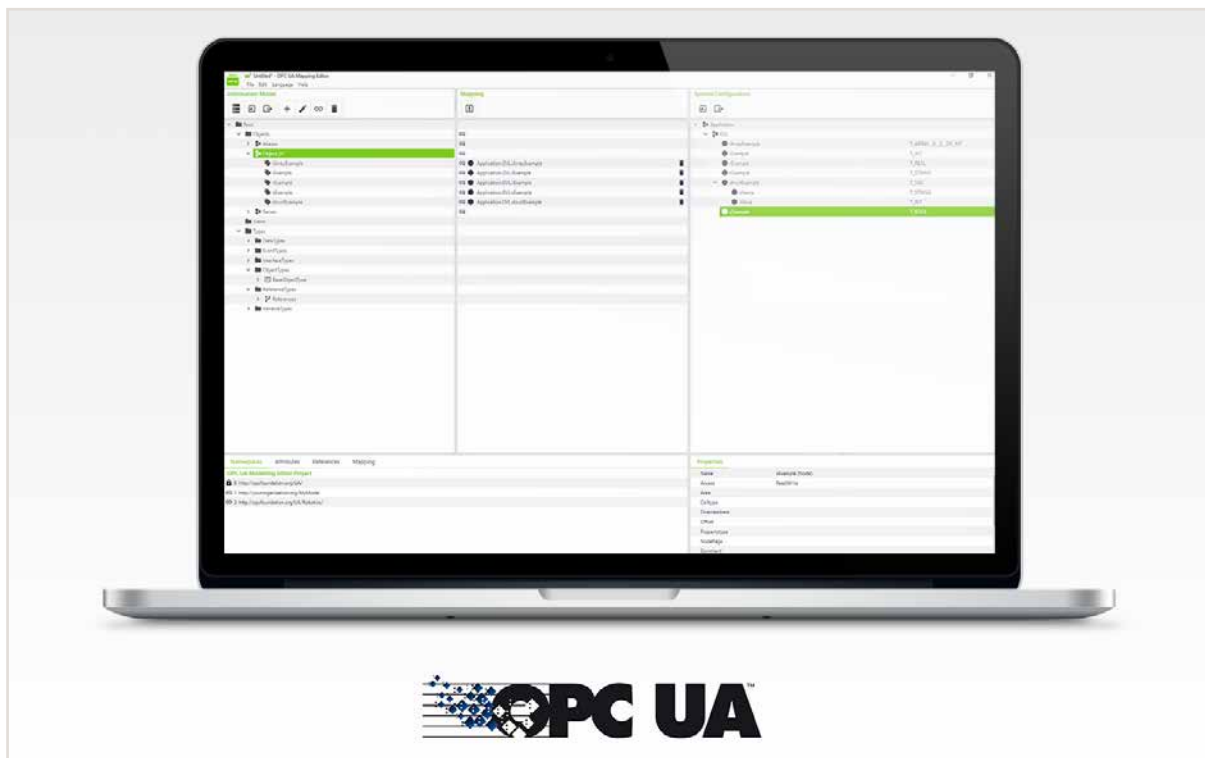
xx is a wildcard; the license applies to all Touch Panel sizes.
 *) The prerequisite for using the OPC UA Server Extended is the license equipment of the device with a PLC license as Control Panel.

Minimum firmware version	Firmware (18) Patch 3
Minimum e!COCKPIT version	V1.9
Delivery type	License certificate per email
For data sheet and additional information, see:	wago.com/2759-2233/211-1000 wago.com/2759-2236/211-1000

An Internet connection to the PC that's equipped with e!COCKPIT may be required for license activation.
 A single license allows installation on one device.
 Every additional device requires its own license.

OPC UA is a registered trademark of the OPC Foundation.

OPC UA Mapping Editor



Functions:

The OPC UA Mapping Editor for WAGO's Linux®-based controllers offers even greater flexibility for leveraging the benefits of OPC UA communication. These "companion specifications" have been defined to cope with the demands of different industries having similar products and machines. These specifications primarily describe information models.

The OPC UA Mapping Editor allows you to modify the information model that specifies how the WAGO OPC UA server provides the data; you can also map the data onto any information model. For this purpose, a symbol configuration is generated with *e!COCKPIT*. After the symbol configuration is loaded, the variables are mapped to the newly created information model. Once the resulting mapping is loaded onto the controller, it's easy to implement OPC UA communication for different applications and performance demands. Customer-specific adaptations are also possible, even if they don't correspond to any particular specification.

Operation on the controller requires an "Extended" *e!RUNTIME* license for the WAGO OPC UA Server (2759-2233/211-1000 or 2759/2236/211-1000) on the device. Mapping Editor, which creates the information model, is free of charge.

Benefits:

- Adaptation of the information model provided by the OPC UA Server to any information model
- Flexible use of OPC UA

Use:

The OPC UA Mapping Editor has been developed for use on Windows 10-based systems.

Item Description	
OPC UA Mapping Editor	
Download: www.wago.com	
Supported Controllers	Item No.
2nd Generation PCF200	750-821x
TP600 Control Panels	752-430x
Edge Controller	752-8303/8000-002

System Requirements	
Operating system	Windows 10
Memory	4 GB
Free hard disk space	800 MB
Processor	Dual-core CPU
Screen resolution	Minimum: 1,366 x 768 pixels Recommended: 1,920 x 1,080 pixels
Minimum <i>e!COCKPIT</i> version	V1.9 or higher
Minimum firmware version	FW18 patch 3
Delivery type	Download

OPC UA Mapping Editor is free of charge. However, running it on a controller requires an "Extended" *e!RUNTIME*-license for the WAGO OPC UA Server.

Runtime Software e!RUNTIME; OPC UA Client

Function:

OPC Unified Architecture allows you to exchange data securely between different devices. OPC UA is a manufacturer-independent communication protocol that defines semantic annotation in addition to data transmission. The WAGO OPC UA Client allows data from an OPC UA Server to be included in the IEC application. The interface to your application is a function block library, which is implemented according to PLCopen.

To use the OPC UA client, it is necessary to license the device.

Benefits:

- Use the device as an OPC UA client
- Read/write OPC UA data points of an OPC UA server via the IEC application

Use:

Enter the license into **e!COCKPIT**, assign it to a device and load both the license and project into the controller. No other installation steps are required.

Technical Data:

The following PLCopen modules are supported:

- Connect and Disconnect
- namespaceGetIndexList
- NodeGetHandleList and NodeReleaseHandleList
- ReadList and WriteList



Item Description	
e!RUNTIME; OPC UA Client	Item No.
Single License; Online Activation	2759-2230/211-1000
Compatible Controllers	
Controller PFC200; G2	750-821x/xxxx-xxxx
Controller PFC200; G2; XTR	750-821x/0040-0000

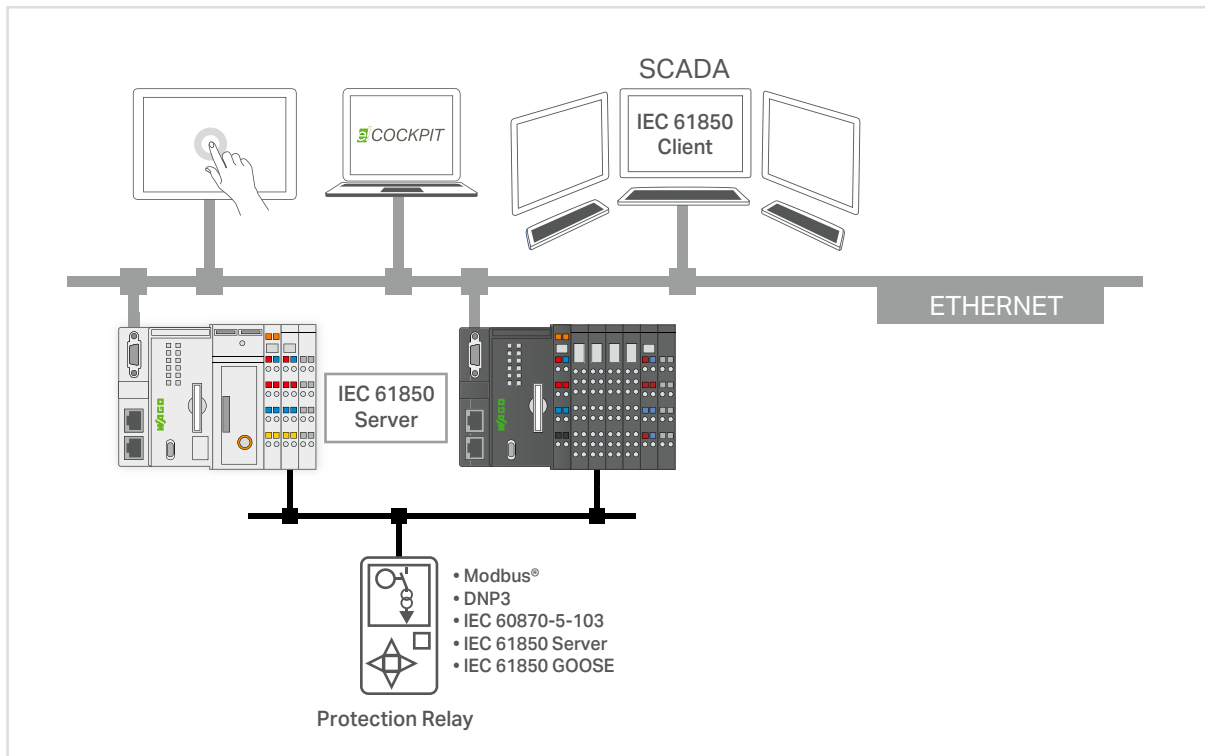
Minimum e!COCKPIT version	V1.9
Delivery type	License certificate per email
For data sheet and additional information, see:	wago.com/2759-2230/211-1000

An Internet connection to the PC that's equipped with **e!COCKPIT** may be required for license activation.

A single license allows installation on one device. Every additional device requires its own license.

OPC UA is a registered trademark of the OPC Foundation.

Runtime Software e!RUNTIME; IEC 61850 Server



Function:

Communication according to the IEC 61850 protocol can be conveniently parameterized with the configurator. For this purpose, the CODESYS development environment is extended by the WAGO Telecontrol Package.

The user can create the IEC 61850 object structure in the configurator or alternatively import it from a file in IEC 61850 SCL format. The created configuration can be re-exported in the SCL file format so that it can be read in the remote station of an IEC 61850 client. This saves time during engineering and avoids errors. For online communication, the IEC 61850 Server supports (un)buffered reporting in MMS* format and GOOSE* Publishing.

This license enables the IEC 61850 protocol on the server side. This permits the creation of gateways that convert one protocol into another, e.g., allowing protection devices to be read out via IEC 60870-103 and data to be transmitted to the network control system via IEC 61850.

Your Benefits:

- Create a gateway application to pass data from local I/Os or data read with other protocols to a higher-level IEC 61850 management system
- Transmission of the control information of a higher-level IEC 61850 control system to protective devices via GOOSE Publishing, IEC 60870-5-103 or DNP3

This may require additional software licenses, such as the WAGO IEC 60870 Master, DNP3 Master.

Use:

The license is registered with the DRM package for CODESYS or in WAGO Upload and loaded onto a device. No other installation steps are required.

Technical Data:

See the product manual "Configuring the IEC-61850 Protocol."

*MMS = Manufacturing Messaging Specification

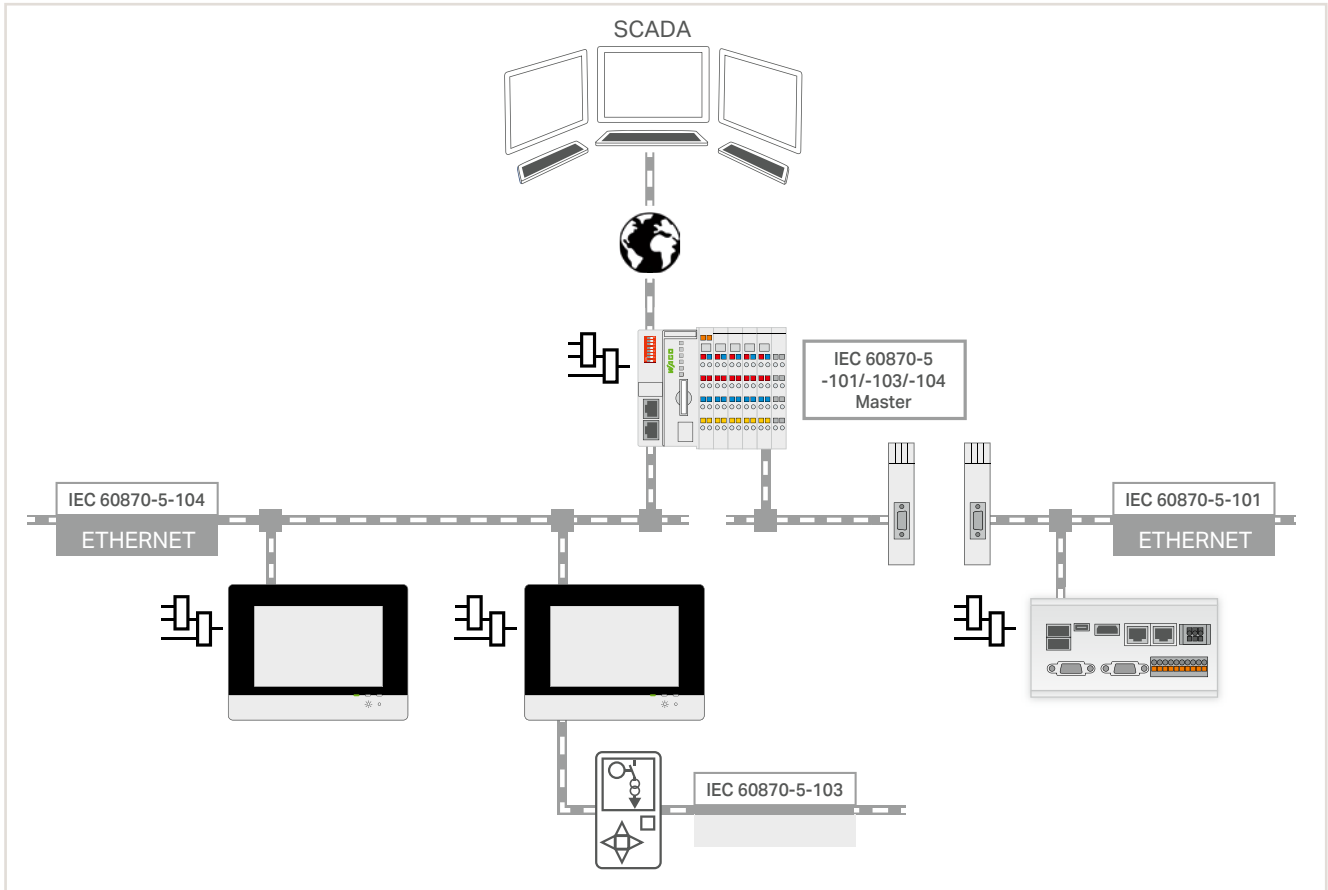
*GOOSE = Generic Object Oriented Substation Event

Item Description	Item No.
e!RUNTIME; IEC 61850 Server	
Single License; Online Activation	2759-2240/211-1000
Compatible Controllers	
PFC200 G2; 4ETH RS	750-8210
PFC200 G2; 4ETH RS; T	750-8210/025-000
PFC200 G2; 4ETH RS; XTR	750-8210/040-000
PFC200 G2; 2ETH 2SFP	750-8211
PFC200 G2; 2ETH 2SFP; XTR	750-8211/040-000
PFC200 G2; 2ETH RS	750-8212
PFC200 G2; 2ETH RS; T	750-8212/025-000
PFC200 G2; 2ETH RS; XTR	750-8212/040-000
PFC200 G2; 2ETH CAN	750-8213
PFC200 G2; 2ETH RS CAN	750-8214
PFC200 G2; 4ETH CAN USB	750-8215
PFC200 G2; 2ETH RS 4G	750-8217
PFC200 G2; 2ETH RS 4G; T	750-8217/025-000

Other required software	CODESYS V3.5 SP16 and higher
Delivery type	Licence certificate via email (e!COCKPIT already contains the software itself)
For data sheet and additional information, see:	wago.com/2759-2240/211-1000

An Internet connection to the PC that's equipped with e!COCKPIT may be required for license activation. A single license allows installation on one controller. One license per controller is required.

Runtime Software e!RUNTIME; IEC 60870 Master L



Function:

The parameters for communication per the IEC 60870 Protocol can be set with a configurator integrated into the **e!COCKPIT** Software. The configurator sets up IEC 60870 objects while configuring data exchange to the PLC application or I/O modules. Import and export functions in CSV format allow configured data to be transmitted to other engineering tools. With this license, the IEC 60870-5-101, -103 and -104 Protocols can be activated on the master. This permits the creation of gateways that convert one protocol into another, e.g., allowing protection devices to be read out via IEC 60870-5-103 and data to be transmitted to the network control system via IEC 60870-5-104.

IEC 60870-101/-104 Information Objects can be used to monitor the direction of single, double and step messages – bit patterns, counter values, as well as normalized, scaled and floating-point measurement values can also be used. All information objects can be received with or without a time stamp. This also applies to information objects in the control direction.

The IEC 60870-5 Master L can support connections to up to 16 IEC 60870-5 Slave Devices.

Item Description		
e!RUNTIME; IEC 60870 Master L		Item No.
Single License; Online Activation		2759-296/211-1000
Compatible Devices		
Hardware Configuration PIO 3	Touch Panel 600 Standard Line	762-43xx/8000-002
	Touch Panel 600 Advanced Line	762-53xx/8000-002
	Touch Panel 600 Marine Line	762-63xx/8000-002
Hardware Configuration PIO 2	Touch Panel 600 Standard Line	762-42xx/8000-001
	Touch Panel 600 Advanced Line	762-52xx/8000-001
	Touch Panel 600 Marine Line	762-62xx/8000-001
WAGO Edge Controller		752-8303/8000-002

xx is a wildcard; the license applies to all Touch Panel sizes.

Your Benefits:

- Use the controller as a telecontrol master to read data from IEC-60870-5-101/-104 Field Devices or IEC-60870-5-103 Protection Devices (slaves) and process it locally in the controller.
- Create a gateway application to use this master function to forward read data to a higher-level control system or cloud. This may require additional software licenses, such as the WAGO IEC 60870 Slave, DNP 3 Slave, Spark-plug or WAGO Cloud.

Use:

Enter the license into **e!COCKPIT**, assign it to a device and load both the license and project into the controller. No other installation steps are required.

Technical Data:

See Section "Functionality of the WAGO Protocol Library according to IEC 60870-5-101, and -104" in Product Manual "Planning the IEC 60870 Protocol with the Telecontrol Configurator and **e!COCKPIT**."

Minimum e!COCKPIT version	V1.9
Delivery type	License certificate via email (e!COCKPIT already contains the software itself)
For data sheet and additional information, see:	wago.com/2759-296/211-1000

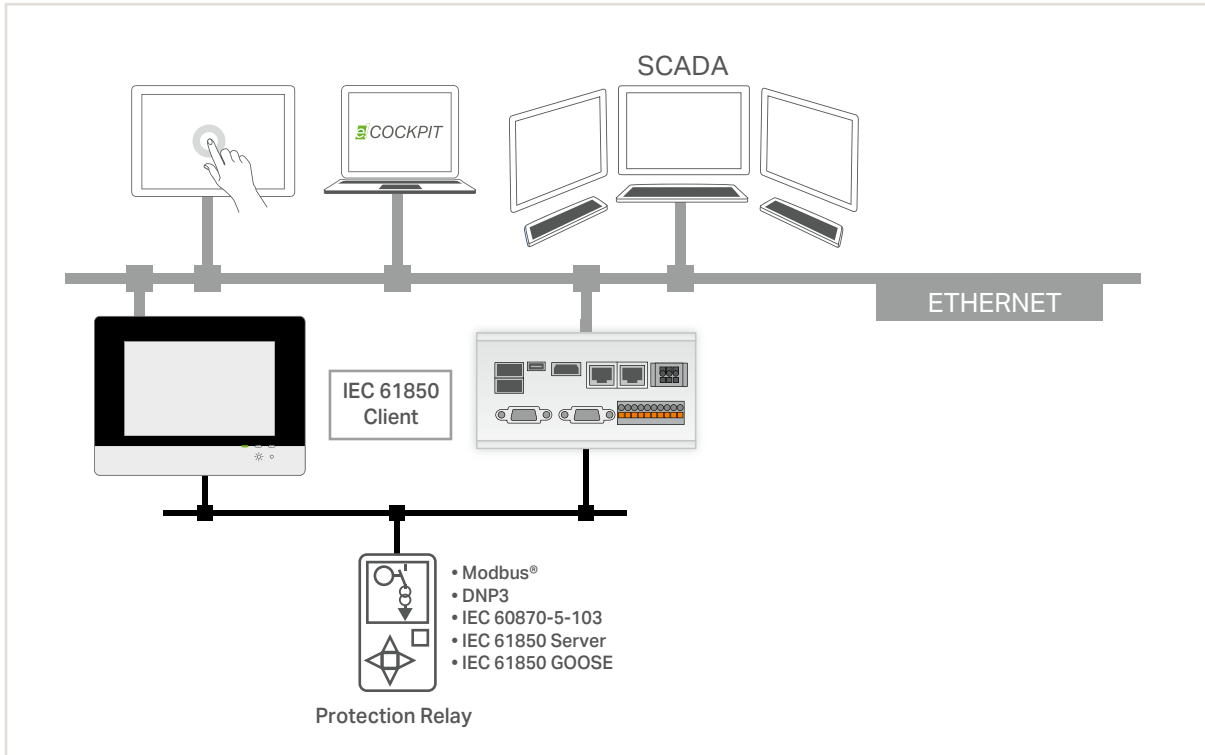
An Internet connection to the PC that's equipped with **e!COCKPIT** may be required for license activation.

A single license allows installation on one device.

Every additional device requires its own license.

Runtime Software

e!RUNTIME; IEC 61850 Client L



Function:

The parameters for communication per the IEC 61850 Protocol can be set with a configurator integrated into the e!COCKPIT Software.

The configurator sets up the reading of IEC 61850 object data from protection devices, for example. If the configuration of the third-party device is available in IEC-61850 SCL exchange format, it can be read in using the configurator's import functions. Alternatively, it is also possible to read the configuration from the third-party device using the configurator's online browsing function.

With this license, the IEC 61850 Protocol can be activated on the client. This permits the creation of gateways that convert one protocol into another, e.g., allowing protection devices to be read out via IEC 61850 and data to be transmitted to the network control system via IEC 60870-5-104.

The IEC 61850 Client L processes data from up to four servers with each 10 requests.

Your Benefits:

- Use the controller as a telecontrol master (client) to read data from IEC 61850 Protection Devices (servers) and process it locally in the controller.
- Create a gateway application to use this client function to forward read data to a higher-level control system or cloud. This may require additional software licenses, such as the WAGO IEC 60870 Slave, DNP 3 Slave, Sparkplug or WAGO Cloud.

Use:

Enter the license into e!COCKPIT, assign it to a device and load both the license and project into the device. No other installation steps are required.

Technical Data:

See Product Manual "Planning the IEC 61850 Protocol with the Telecontrol Configurator and e!COCKPIT."

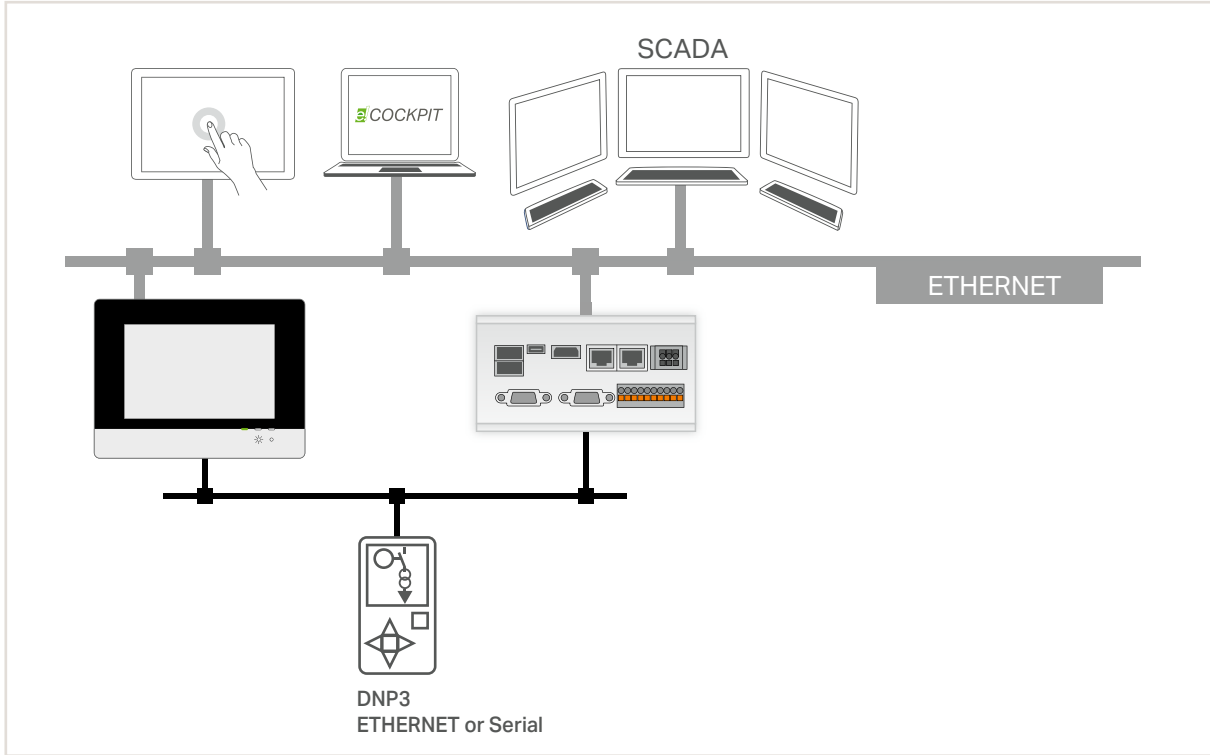
Item Description		
e!RUNTIME; IEC 61850 Client L		Item No.
Single License; Online Activation		2759-2246/211-1000
Compatible Devices		
Hardware Configuration PIO 3	Touch Panel 600 Standard Line	762-43xx/8000-002
	Touch Panel 600 Advanced Line	762-53xx/8000-002
	Touch Panel 600 Marine Line	762-63xx/8000-002
Hardware Configuration PIO 2	Touch Panel 600 Standard Line	762-42xx/8000-001
	Touch Panel 600 Advanced Line	762-52xx/8000-001
	Touch Panel 600 Marine Line	762-62xx/8000-001
WAGO Edge Controller		752-8303/8000-002

Minimum e!COCKPIT version	V1.9
Delivery type	Licence certificate via email (e!COCKPIT already contains the software itself)
For data sheet and additional information, see:	wago.com/2759-2246/211-1000

An Internet connection to the PC that's equipped with e!COCKPIT may be required for license activation.
A single license allows installation on one device.
Every additional device requires its own license.

xx is a wildcard; the license applies to all Touch Panel sizes.

Runtime Software e!RUNTIME; DNP3 Master L



Function:

The DNP3 Configurator is part of the e!COCKPIT Software. With this license, the DNP3 Protocol can be activated on the master. The configurator fully supports the DNP3-specific functions of all WAGO telecontrollers. The configurator sets up DNP3 objects while configuring data exchange to the PLC application or I/O modules. As an alternative to manually configuring connections to DNP3 Slaves, it is also possible to use a description file to import the configurations in the standard DNP3 XML device profile format.

In performance class L, the master can maintain connections for up to four DNP3 Slaves, thereby working as TCP or serial DNP3 Master. Up to 10,000 events from connected DNP3 Slaves can be saved in the controller's internal RAM or on the SD card.

In the monitoring direction, the WAGO DNP3 Master L can receive digital, analog and count values from the slave. Both digital and analog values can be sent in the control direction. Analog values can be processed in 16-bit, 32-bit or FLOAT format. Count values can be processed in 16-bit or 32-bit format.

Your Benefits:

- Use of the controller as a DNP3 Master to read and process data from DNP3 Slaves (field devices) via TCP, UDP or serially.
- Create a gateway application to transfer data from DNP3 Slaves (field devices) and other protocols (e.g., IEC 60870, Modbus®).

Use:

Enter the license into e!COCKPIT, assign it to a device and load both the license and project into the device. No other installation steps are required.

Technical Data:

See the document "e!RUNTIME DNP3 Master Device Profile" on www.wago.com.

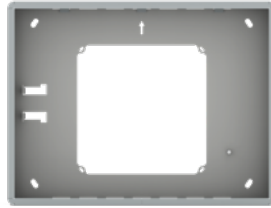
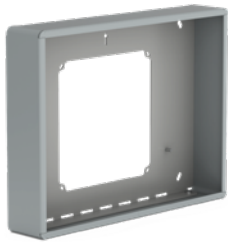
Item Description		
e!RUNTIME; DNP3 Master L		Item No.
Single License; Online Activation		2759-2296/211-1000
Compatible Devices		
Hardware Configuration PIO 3	Touch Panel 600 Standard Line	762-43xx/8000-002
	Touch Panel 600 Advanced Line	762-53xx/8000-002
	Touch Panel 600 Marine Line	762-63xx/8000-002
Hardware Configuration PIO 2	Touch Panel 600 Standard Line	762-42xx/8000-001
	Touch Panel 600 Advanced Line	762-52xx/8000-001
	Touch Panel 600 Marine Line	762-62xx/8000-001
WAGO Edge Controller		752-8303/8000-002

Minimum e!COCKPIT version	V1.9
Delivery type	Licence certificate via email (e!COCKPIT already contains the software itself)
For data sheet and additional information, see:	wago.com/2759-2296/211-1000

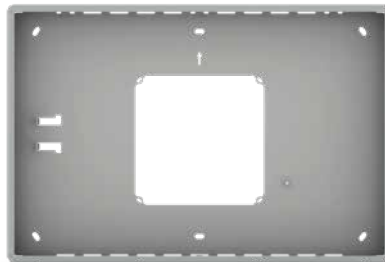
An Internet connection to the PC that's equipped with e!COCKPIT may be required for license activation.
A single license allows installation on one device.
Every additional device requires its own license.

xx is a wildcard; the license applies to all Touch Panel sizes.

Surface-Mounted Housing for Touch Panel 600; Visu Panel

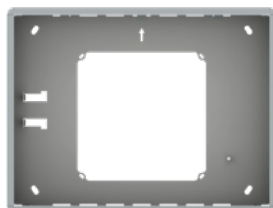


Item Description	Surface-Mounted Housing for Touch Panel 600; 25.7 cm (10.1"); 52.5 mm; Visu Panel
Item No.	762-9214
Technical Data	
Dimensions W x H x D (mm)	292.8 x 222.6 x 52.5
Weight	1300 g

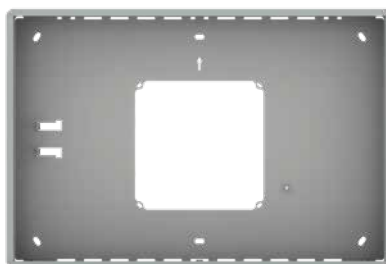
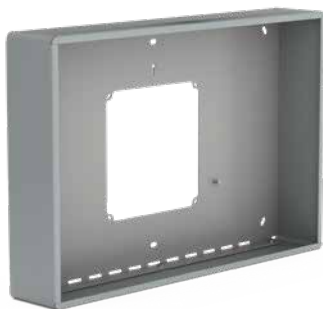


Item Description	Surface-Mounted Housing for Touch Panel 600; 39.6 cm (15.6"); 52.5 mm; Visu Panel
Item No.	762-9215
Technical Data	
Dimensions W x H x D (mm)	420 x 282 x 52.5
Weight	2500 g

Surface-Mounted Housing for Touch Panel 600; Control Panel

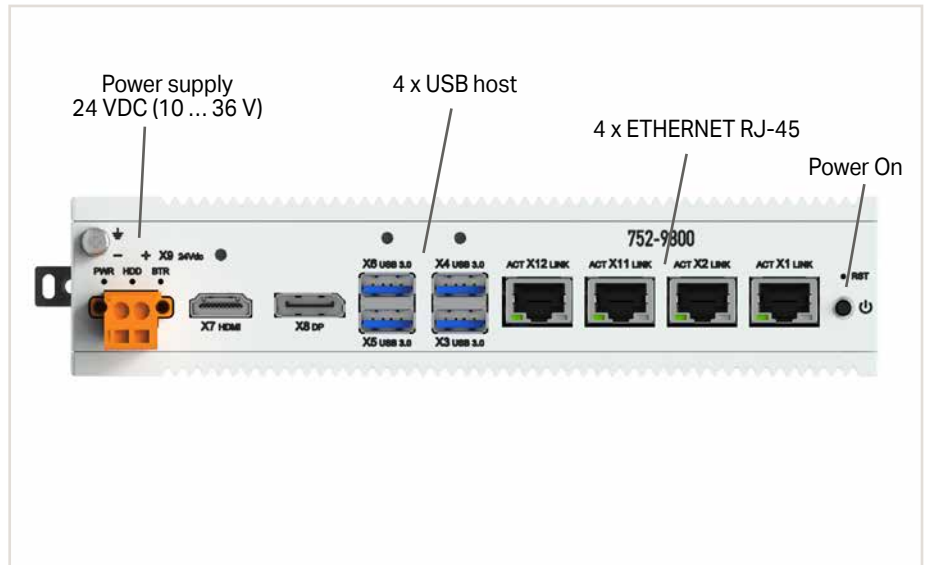


Item Description	Surface-Mounted Housing for Touch Panel 600; 25.7 cm (10.1"); 72.0 mm; Control Panel
Item No.	762-9314
Technical Data	
Dimensions W x H x D (mm)	292.8 x 222.6 x 72
Weight	1600 g



Item Description	Surface-Mounted Housing for Touch Panel 600; 39.6 cm (15.6"); 72.0 mm; Control Panel
Item No.	762-9315
Technical Data	
Dimensions W x H x D (mm)	420 x 282 x 72
Weight	3000 g

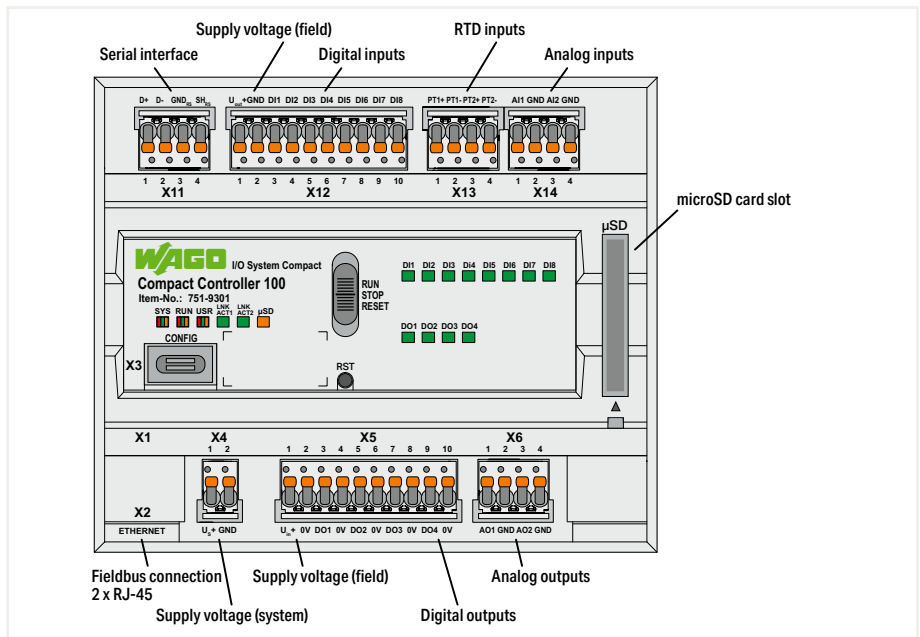
Edge Computer; 4 x ETHERNET, 4 x USB, HDMI, DP; 16 GB RAM, 256 GB Flash



- 4 ETHERNET interfaces for connecting to field devices and IT network
- 4 USB ports for the optional connection of a USB stick, mouse or keyboard
- HDMI and display port interfaces for connecting a display

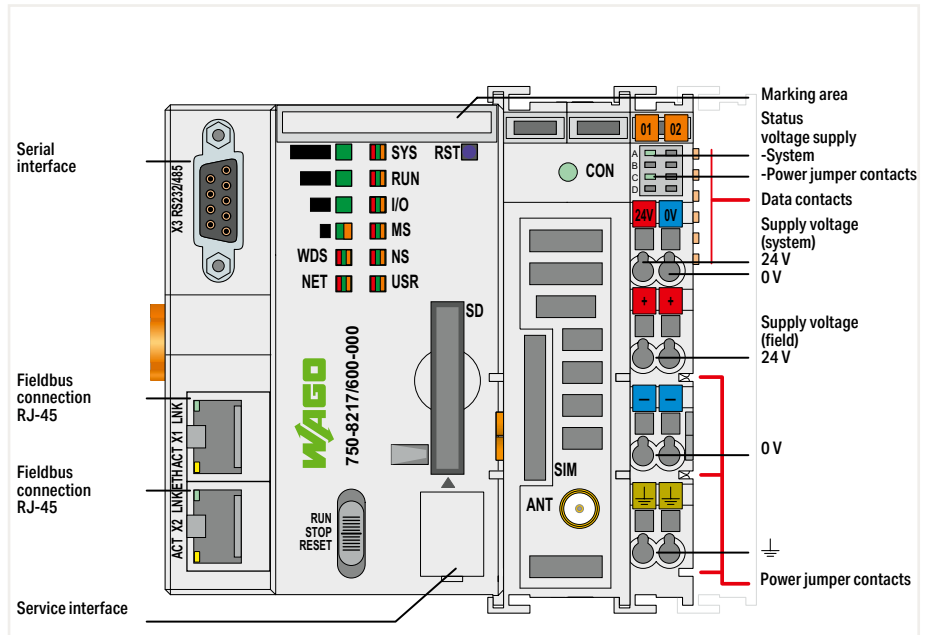
Item Description	Edge Computer; 4 x ETHERNET, 4 x USB, HDMI, DP; 16 GB RAM, 256 GB Flash
Item No.	752-9800
Order Text	EPC; 4ETH, 4USB, HDMI, DP; 16GB RAM, 256GB Flash
Technical Data	
Communication	Web browser
Visualization	Web server
ETHERNET protocols	DHCP; DNS; HTTP; HTTPS; SSH; SCP; SFTP
Operating system	Debian Linux 10.9
Processor	Intel® i7-7600U 2.8 GHz (max. 3.90 GHz)
Main memory (RAM)	16 GB; DDR4 2133 MHz
Internal memory (flash)	256 GB; SATA 2.5" SSD
Memory expansion	Full-size mPCIe slot; Drive slot for one 2.5" SSD HDD memory card (height 9.5 mm)
RTC (Real-Time Clock)	Battery type BR2032; 3 VDC
Connection technology: communication/fieldbus	ETHERNET: 4 x RJ-45 1000BASE-T
Baud rate	ETHERNET: 10/100/1000 Mbit/s
Interfaces	4 x USB 3.0 (Type A); 1 x HDMI v1.4, 1920 x 1080p @60Hz; 1 x DisplayPort 1.2, 2560 x 440p
Indicators	3 LEDs
Power supply	24 VDC (10 ... 36 V)
Input current (24 V)	2292 mA typ.; 3967 mA max.
Operating power	55 W typ.; 95.2 W max.
Dimensions (W x H x D)	45 x 200 x 140 mm
Weight	1810 g
Housing material	Aluminum, powder-coated
Mounting type	DIN-35-rail mount
Surrounding air temperature (operation)	-20 ... +60 °C
Surrounding air temperature (storage)	-40 ... +85 °C
Protection type	IP40
Relative humidity (without condensation)	95 %
Approvals	CE*, FCC*, UL*; *pending

Compact controller ▶ 2 x ETHERNET, RS-485; 8DI, 4DO, 2Ai, 2AO, 2NI1K/PT1K



Version	Standard
Item no.	751-9301
Order text	Compact Controller 100
Technical data	
Communication	Modbus (TCP, UDP); EtherCAT master; EtherNet/IP™ Adapter (slave); EtherNet/IP™ Scanner; Modbus® RTU; RS-485 interface; MQTT
ETHERNET protocols	DHCP; DNS; NTP; FTP; FTPS; SNMP; HTTP; HTTPS; SSH
Visualization	Web-Visu
Programming environment	CODESYS V3.5; Node-RED
CPU	Cortex A7; 650 MHz
Operating system	Real-time Linux (with RT-Preempt patch)
Main memory (RAM)	512 MB
Internal memory (flash)	4096 MB
Non-volatile hardware memory	128 KB
Data memory	128 MB
Program memory	32 MB
Non-volatile software memory	128 KB
Supply voltage (system)	24 VDC (-15 ... +20 %); via pluggable connector (<i>picoMAX</i> ® 3.5; Push-in CAGE CLAMP® connection)
Supply voltage (field)	24 VDC (-15 ... +20 %); via pluggable connector (<i>picoMAX</i> ® 3.5; Push-in CAGE CLAMP® connection)
Current consumption (system) max.	500 mA
Current consumption (field) max.	2000 mA
Signal type	Voltage; Resistance measurement
Number of digital inputs	8
Input characteristic	Type 3 (per EN 61131-2)
Number of digital outputs	4
Output current (per channel)	500 mA (DC)
Output current	short-circuit-protected
Signal type (voltage)	0 ... 10 VDC
Number of analog inputs	2
Resolution of analog inputs	16 bits
Number of analog outputs	2
Resolution of analog outputs	12 bits
Load impedance (voltage output)	≥ 5 kΩ
Number of measurement inputs	2
Temperature range	-60 °C ... 350 °C, PT1000, Ni1000
Ambient temperature (operation)	-25 ... +60 °C
Approvals	C E; UKCA; OrdLoc
For data sheet and additional information, see:	wago.com/751-9301
Accessories	
Memory Card SD Micro; pSLC-NAND; 8 GB; Temperature range: -40 to 90°C	758-879/000-3108
Memory Card SD Micro; 2 GByte	758-879/000-3102

Controller PFC200 ▶ 2 x ETHERNET, RS-232/-485, mobile radio module

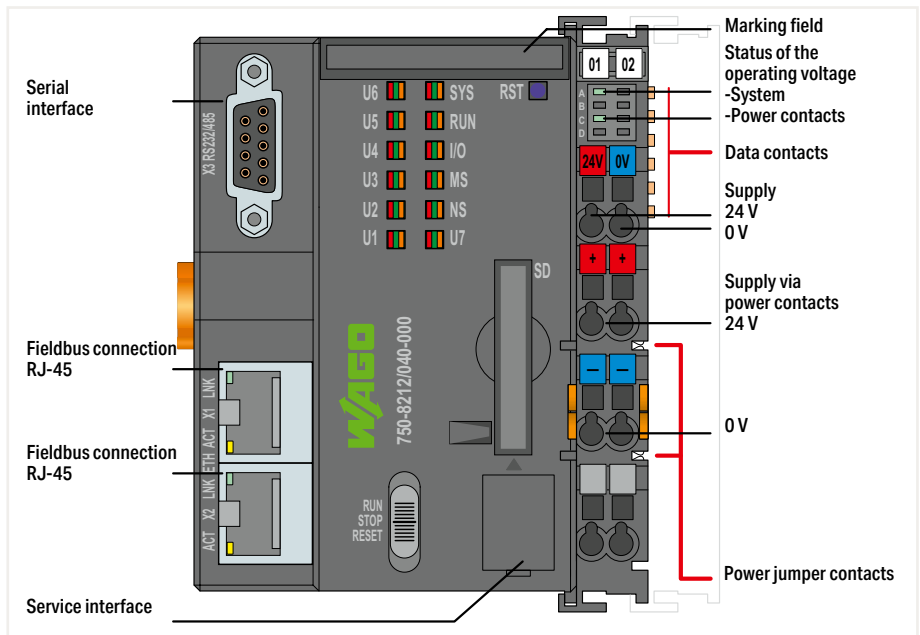


Version		ext. temperature
Item no.	750-8217/600-000	750-8217/625-000
Order text	PFC200; 2ETH RS 4G; Global	PFC200; 2ETH RS 4G; Global; T

Technical Data		
Communication	Modbus (TCP, UDP); ETHERNET; EtherNet/IP™ Adapter (slave), library for e!RUNTIME ; Modbus® RTU; RS-232 serial interface; RS-485 interface; MQTT; BACnet/IP, requires an additional license ; EtherCAT® master (requires an additional license); Telecontrol protocols (requires an additional license on the device)	
ETHERNET protocols	DHCP; DNS; NTP; FTP; FTPS; SNMP; HTTP; HTTPS; SSH	
Telecontrol protocols	IEC 60870-5-101/-103/-104 (additional license as slave or master); IEC-61850 (additional license as Client 300); DNP3 (additional license as Slave or Master 300)	
Radio technology	GSM/Edge/UMTS/HSPA+; LTE	
Frequency band	GSM: B2/B3/B5/B8; WCDMA: B1/B2/B4/B5/B6/B8/B19; LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/ B19/B20/B25/B26/B28; LTE-TDD: B38/B39/B40/B41	
Services	GPRS connection to Internet	
Security encryption	OpenVPN, IPsec, firewall	
Visualization	Web-Visu	
Programming environment	e!COCKPIT (based on CODESYS V3)	
CPU	Cortex A8; 1 GHz	
Operating system	Real-time Linux (with RT-Preempt patch)	
Main memory (RAM)/internal memory (flash)/non-volatile memory (hardware)	512 MB / 4 GB / 128 KB	
Program memory/data memory/non-volatile memory (software)	e!RUNTIME : 32 MB / 128 MB / 128 KB	
Number of modules per node (max.)	250	
Input and output process image (internal) max.	1000 words/1000 words	
Input and output process image (Modbus®) max.	e!RUNTIME : 32000 words/32000 words	
Supply voltage (system)	24 VSELV/PELV DC (-25 ... +30 %); via pluggable connector (CAGE CLAMP® connection)	
Supply voltage (field)	24 VSELV/PELV DC (-25 ... +30 %); via power jumper contacts	
Input current (typ.) at nominal load (24 V)	550 mA	
Total current (system supply)	700 mA	
Ambient temperature (operation)	0 ... +55 °C	-20 ... +60 °C
Dimensions W x H x D	(102.5 x 100 x 71.9) mm	
Approvals	CE; Marine; OrdLoc	
For data sheet and additional information, see:	wago.com/750-8217/600-000	

Product Expansions	Item no.	Item no.
e!RUNTIME; BACnet; 300; Single License	2759-283/211-1000	2759-283/211-1000
e!RUNTIME; EtherCAT Master; 300; Single License	2759-263/211-1000	2759-263/211-1000
e!RUNTIME; DNP3 Master; M; Single License	2759-2293/211-1000	2759-2293/211-1000
e!RUNTIME; IEC60870 Slave; Single License	2759-290/211-1000	2759-290/211-1000
e!RUNTIME; DNP3 Slave; Single License	2759-2290/211-1000	2759-2290/211-1000
e!RUNTIME; IEC60870 Master; M; Single License	2759-293/211-1000	2759-293/211-1000
e!RUNTIME; IEC61850 Client; M; Single License	2759-2243/211-1000	2759-2243/211-1000
Accessories	Item no.	Item no.
Memory Card SD; SLC-NAND; 2 GByte; Temperature from -40 to 90 °C	758-879/000-001	758-879/000-001
Memory Card SD; pSLC-NAND; 8 GB; Temperature range: -40 to 90°C	758-879/000-2108	758-879/000-2108
Magnetic foot antenna; with 2.5m cable and SMA plug; GSM/ UMTS/ LTE/ Bluetooth®/ WLAN; 698-960, 1710-6000 MHz	758-975	758-975

Controller PFC200 XTR ▶ 2 x ETHERNET, RS-232/-485

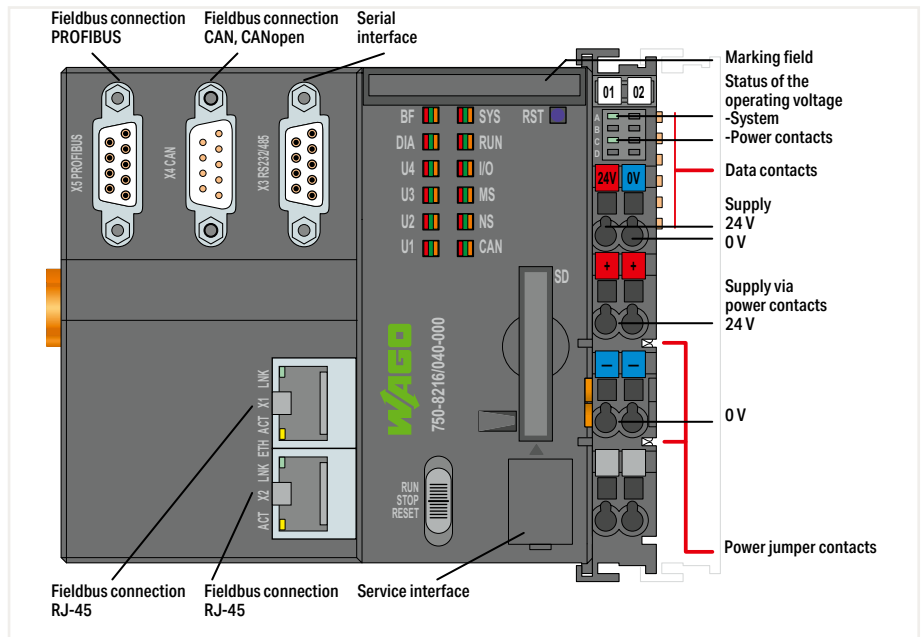


Version	extreme	Telecontrol technology; extreme
Item no.	750-8212/040-000	750-8212/040-001
Order text	PFC200; G2; 2ETH RS; XTR	PFC200; G2; 2ETH RS; Tele; XTR

Technical Data	
Communication	Modbus (TCP, UDP); ETHERNET; EtherNet/IP™ Adapter (slave), library for e!RUNTIME ; Modbus® RTU; RS-232 serial interface; RS-485 interface; MQTT; EtherCAT® master (requires an additional license); BACnet/IP, requires an additional license
ETHERNET protocols	Modbus (TCP, UDP); ETHERNET; EtherNet/IP™ Adapter (slave), library for e!RUNTIME ; Modbus® RTU; RS-232 serial interface; RS-485 interface; MQTT; EtherCAT® master (requires an additional license); BACnet/IP, requires an additional license; Telecontrol protocols
Telecontrol protocols	DHCP; DNS; NTP; FTP; FTPS; SNMP; HTTP; HTTPS; SSH
Visualization	IEC 60870-5-101/-103/-104; IEC 61400-25; IEC 61850-7; DNP3
Programming environment	Web-Visu
CPU	e!COCKPIT (based on CODESYS V3); WAGO-I/O-PRO V2.3 (based on CODESYS V2.3)
Operating system	Cortex A8; 1 GHz
Main memory (RAM)/internal memory (flash)/non-volatile memory (hardware)	Real-time Linux (with RT-Preempt patch)
Program memory/data memory/non-volatile memory (software)	512 MB / 4 GB / 128 KB
Number of modules per node (max.)	CODESYS V2: 16 MB / 64 MB / 128 KB; e!RUNTIME : 32 MB / 128 MB / 128 KB
Input and output process image (internal) max.	64
Input and output process image (Modbus®) max.	1000 words/1000 words
Supply voltage (system)	CODESYS V2: 1000 words/1000 words; e!RUNTIME : 32000 words/32000 words
Supply voltage (field)	24 VDC; via pluggable connector (CAGE CLAMP® connection); Derating must be observed!
Derating	24 VDC; Power supply via pluggable connector (CAGE CLAMP® connection); Transmission via power jumper contacts; Derating must be observed!
Input current (typ.) at nominal load (24 V)	Derating (supply voltage): Surrounding air temperatures under laboratory conditions: (-25 ... +30 %); for -40 ... +55 °C: 24 V (-25 ... +20 %); for +55 ... +70 °C: 24 V (-25 ... +10 %); Lower limit in all temperature ranges: -27.5 % (including 15 % residual ripple)
Total current (system supply)	550 mA
Ambient temperature (operation)	1700 mA
Dimensions W x H x D	-40 ... +70 °C
Approvals	(78.6 x 100 x 71.9) mm
For data sheet and additional information, see:	CE; Marine; OrdLoc/HazLoc
	wago.com/750-8212/040-000

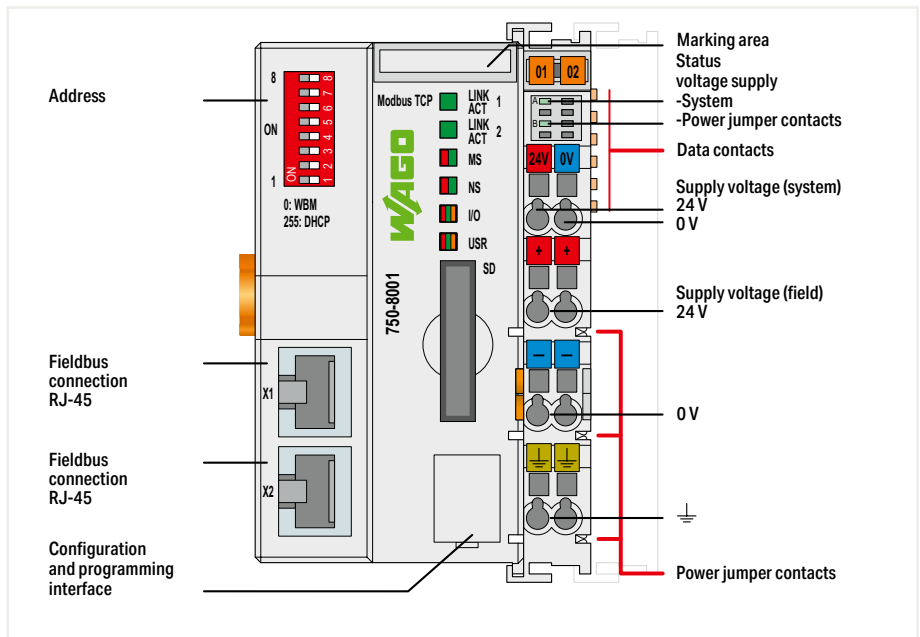
Product Expansions		
e!RUNTIME; BACnet; 300; Single License	2759-283/211-1000	2759-283/211-1000
e!RUNTIME; EtherCAT Master; 300; Single License	2759-263/211-1000	2759-263/211-1000
e!RUNTIME; DNP3 Master; M; Single License	2759-2293/211-1000	-
e!RUNTIME; IEC60870 Slave; Single License	2759-290/211-1000	-
e!RUNTIME; DNP3 Slave; Single License	2759-2290/211-1000	-
e!RUNTIME; IEC60870 Master; M; Single License	2759-293/211-1000	-
e!RUNTIME; IEC61850 Client; M; Single License	2759-2243/211-1000	-
Accessories		
Memory Card SD; SLC-NAND; 2 GByte; Temperature from -40 to 90 °C	758-879/000-001	758-879/000-001
Memory Card SD; pSLC-NAND; 8 GB; Temperature range: -40 to 90°C	758-879/000-2108	758-879/000-2108

Controller PFC200 XTR ▶ 2 x ETHERNET, RS-232/-485, CAN, CANopen, PROFIBUS slave



Version	extreme
Item no.	750-8216/040-000
Order text	PFC200; G2; 2ETH RS CAN DPS; XTR
Technical Data	
Communication	PROFIBUS; Modbus (TCP, UDP); ETHERNET; CANopen; EtherNet/IP™ Adapter (slave), library for e!RUNTIME; Modbus® RTU; RS-232 serial interface; RS-485 interface; MQTT; EtherCAT® master (requires an additional license); BACnet/IP, requires an additional license
ETHERNET protocols	DHCP; DNS; NTP; FTP; FTPS; SNMP; HTTP; HTTPS; SSH
Visualization	Web-Visu
Programming environment	e!COCKPIT (based on CODESYS V3); WAGO-I/O-PRO V2.3 (based on CODESYS V2.3)
CPU	Cortex A8; 1 GHz
Operating system	Real-time Linux (with RT-Preempt patch)
Main memory (RAM)/internal memory (flash)/non-volatile memory (hardware)	512 MB / 4 GB / 128 KB
Program memory/data memory/non-volatile memory (software)	CODESYS V2: 16 MB / 64 MB / 128 KB; e!RUNTIME: 32 MB / 128 MB / 128 KB
Number of modules per node (max.)	64
Input and output process image (internal) max.	1000 words/1000 words
Input and output process image (Modbus®) max.	CODESYS V2: 1000 words/1000 words; e!RUNTIME: 32000 words/32000 words
Input and output process image (PROFIBUS) max.	244 bytes/244 bytes
Input and output process image (CAN) max.	2000 words/2000 words
Supply voltage (system)	24 VDC; via pluggable connector (CAGE CLAMP® connection); Derating must be observed!
Supply voltage (field)	24 VDC; Power supply via pluggable connector (CAGE CLAMP® connection); Transmission via power jumper contacts; Derating must be observed!
Derating	Derating (supply voltage): Surrounding air temperatures under laboratory conditions: (-25 ... +30 %); for -40 ... +55 °C: 24 V (-25 ... +20 %); for +55 ... +70 °C: 24 V (-25 ... +10 %); Lower limit in all temperature ranges: -27.5 % (including 15 % residual ripple)
Input current (typ.) at nominal load (24 V)	550 mA
Total current (system supply)	1700 mA
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	(112 x 100 x 71.9) mm
Approvals	CE; Marine; OrdLoc/HazLoc
For data sheet and additional information, see:	wago.com/750-8216/040-000
Product Expansions	Item no.
e!RUNTIME; BACnet; 300; Single License	2759-283/211-1000
e!RUNTIME; EtherCAT Master; 300; Single License	2759-263/211-1000
e!RUNTIME; DNP3 Master; M; Single License	2759-2293/211-1000
e!RUNTIME; IEC60870 Slave; Single License	2759-290/211-1000
e!RUNTIME; DNP3 Slave; Single License	2759-2290/211-1000
e!RUNTIME; IEC60870 Master; M; Single License	2759-293/211-1000
e!RUNTIME; IEC61850 Client; M; Single License	2759-2243/211-1000
Accessories	Item no.
Memory Card SD; SLC-NAND; 2 GByte; Temperature from -40 to 90 °C	758-879/000-001
Memory Card SD; pSLC-NAND; 8 GB; Temperature range: -40 to 90°C	758-879/000-2108

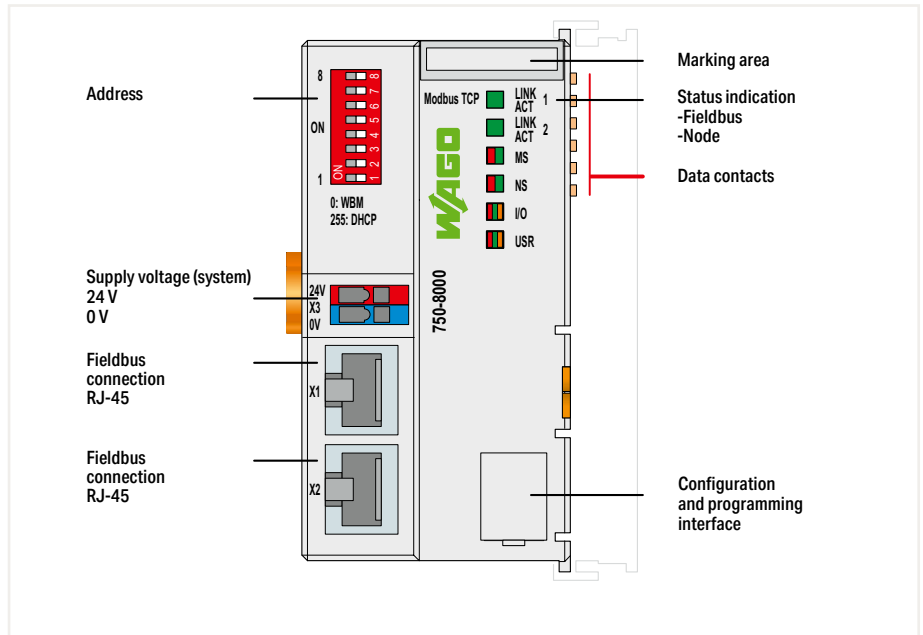
Basic Controller 100 ▶ Modbus TCP; SD card slot



Version	Standard
Item no.	750-8001
Order text	Basic Controller 100; 2ETH

Technical Data	
Communication	Modbus (TCP, UDP)
ETHERNET protocols	HTTP(S); BootP; DHCP; DNS; SNTP; FTP(S); SNMP
Connection technology: communication/fieldbus	Modbus TCP/UDP: 2 x RJ-45
Baud rate	10/100 Mbit/s
Visualization	Web-Visu
Programming environment	CODESYS V3.5
Type of memory card	SD and SDHC up to 32 GB (all guaranteed properties only valid with WAGO Memory Card)
Program memory/data memory/non-volatile memory (software)	16 MB / 32 MB / 128 KB
Number of modules per node (max.)	250
Input and output process image (fieldbus) max.	1020 words/1020 words
Supply voltage (system)	24 VDC (-25 ... +30 %); via pluggable connector (CAGE CLAMP® connection)
Supply voltage (field)	24 VDC (-25 ... +30 %); via power jumper contacts
Input current (typ.) at nominal load (24 V)	500 mA
Current consumption (5 V system supply)	440 mA
Total current (system supply)	1700 mA
Ambient temperature (operation)	0 ... +55 °C
Dimensions W x H x D	(61.5 x 100 x 71.9) mm
Approvals	CE
For data sheet and additional information, see:	wago.com/750-8001

Basic Controller 100 ▶ Modbus TCP; ECO



Version	Standard
Item no.	750-8000
Order text	Basic Controller 100; 2ETH; ECO

Technical Data	
Communication	Modbus (TCP, UDP)
ETHERNET protocols	HTTP(S); BootP; DHCP; DNS; SNTP; FTP(S); SNMP
Connection technology: communication/fieldbus	Modbus TCP/UDP: 2 x RJ-45
Baud rate	10/100 Mbit/s
Visualization	Web server
Programming environment	CODESYS V3.5
Program memory/data memory/non-volatile memory (software)	16 MB / 16 MB / 64 KB
Number of modules per node (max.)	250
Input and output process image (fieldbus) max.	1020 words/1020 words
Supply voltage (system)	24 VDC (-25 ... +30 %); via pluggable connector
Input current (typ.) at nominal load (24 V)	300 mA
Current consumption (5 V system supply)	390 mA
Total current (system supply)	700 mA
Ambient temperature (operation)	0 ... +55 °C
Dimensions W x H x D	(49.5 x 96.8 x 71.9) mm
Approvals	CE
For data sheet and additional information, see:	wago.com/750-8000

WAGO IoT Box; Energy Data with Controller PFC200 (750-8212)



Integrating machines and systems into the "Internet of Things" is incredibly quick and easy with the WAGO IoT Box Energy Data. This IoT Box features power and energy measurement functionality and is ready for immediate use. It also offers all the functions required for digitalization, from signal acquisition to cloud connectivity.

The IoT Box was designed as a plug-and-play device – no hardware engineering is needed. Collected data is transferred to the desired IoT application with just a few parameter settings.

The hardware includes a controller with its own communication interface, I/O modules with analog and digital inputs/outputs, a 3-phase power measurement module and a 24 V power supply unit.

Depending on the application, additional I/O modules can be added later to adapt the system to specific requirements.

Item Description	Item No.
IoT Box; Energy Data	2854-099/000-001
This IoT Box includes:	
Controller PFC200; 2nd generation; 2 x ETHERNET, RS-232/-485	750-8212
Switched-Mode Power Supply; Classic; 1-phase; Output voltage: 24 VDC; Output current: 2 A; NEC Class 2; DC OK signal	787-1606
8-Channel Digital Input; 24 VDC; 3 ms; 2-wire connection	750-1415
8-Channel Digital Output; 24 VDC; 0.5 A; 2-wire connection	750-1515
8-Channel Analog Input; Resistance measurement; Adjustable	750-451
4-Channel Analog Input; Voltage/current; Differential input; 16 bits; Diagnostics	750-471
3-Phase Power Measurement; 690 VAC 1 A	750-495
Rogowski Coil; Primary rated current: 4000 A; Output signal: 22.5 mV per kA; Cable length: 1.5 m; Feedthrough for measurement conductor: 70 mm	855-9150/2000-701
End Module	750-600
SD Memory Card; pSLC-NAND; 8 GB Temperature range: -40 ... +90 °C	758-879/000-2108
IoT Box application (installed and licensed)	
Circuit breaker; 1-pole; C 10 A; 10 kA	
Electrical circuit breaker; 1-pole; 24 VDC; 1 ... 8 A	
Set of wall-mount lugs	
Cable grips M16; M20; M25	
Connectors (plug and socket) for power supply	

Communication	ETHERNET; RS-232 interface; RS-485 interface; MQTT
ETHERNET protocols	DHCP, DNS, FTP, FTPS, HTTP, HTTPS, SSH
Transmission rate	ETHERNET: 10/100 Mbit/s
Visualization	Web-Visu
Dimensions W x H x D	300 x 300 x 210
Power supply (AC)	230 VAC (L/N/GND); 50 Hz
Weight	7.5 kg
Color	Light gray (RAL7035)
Housing material	Metal
Conformity marking	CE
Surrounding air temperature (operation)	0 ... 45 °C
Surrounding air temperature (storage)	-40 ... +85 °C
Protection type	IP20/IP65; (IP65 only applies when both power and LAN cables are locked)
Pollution degree	I
Relative humidity (without condensation)	95 %
Mounting type	Wall-mount

WAGO IoT Box; MES with Controller PFC200 (750-8212)



Integrating machines and systems into the "Internet of Things" is incredibly quick and easy with the WAGO IoT Box MES. This IoT Box also offers a wide range of communication and bus protocols for communicating with production control systems. The complete system is ready for immediate use and offers all the functions required for digitalization, from signal acquisition to cloud connectivity.

The IoT Box was designed as a plug-and-play device – no hardware engineering is needed. Collected data is transferred to the desired IoT application with just a few parameter settings.

The hardware includes a controller with its own communication interface, I/O modules with analog and digital inputs/outputs and a 24 V power supply unit.

Depending on the application, additional I/O modules can be added later to adapt the system to specific requirements.

Manufacturing Execution Systems (MES)

Item Description	Item No.
IoT Box; MES	2854-099/000-002

This IoT Box includes:

Controller PFC200; 2nd generation; 2 x ETHERNET, RS-232/-485	750-8212
Switched-Mode Power Supply; Classic; 1-phase; Output voltage: 24 VDC; Output current: 2 A; NEC Class 2; DC OK signal	787-1606
8-Channel Digital Input; 24 VDC; 3 ms; 2-wire connection	750-1415
8-Channel Digital Output; 24 VDC; 0.5 A; 2-wire connection	750-1515
8-Channel Analog Input; resistance measurement; adjustable	750-451
4-Channel Analog Input; Voltage/current; Differential input; 16 bits; Diagnostics	750-471
End Module	750-600
SD Memory Card; pSLC-NAND; 8 GB Temperature range: -40 ... +90 °C	758-879/000-2108
Energy Data Management (EDM) application (installed and licensed)	
Circuit breaker; 1-pole; C 10 A; 10 kA	
Electrical circuit breaker; 1-pole; 24 VDC; 1 ... 8 A	
Set of wall-mount lugs	
Cable grips M16; M20; M25	
Connectors (plug and socket) for power supply	

Communication	ETHERNET; Modbus (TCP, UDP); Modbus RTU; RS-232 interface; RS-485 interface; MQTT
ETHERNET protocols	DHCP, DNS, FTP, FTPS, HTTP, HTTPS, SSH
Transmission rate	ETHERNET: 10/100 Mbit/s
Visualization	Web-Visu
Dimensions W x H x D	300 x 300 x 210
Power supply (AC)	230 VAC (L/N/GND); 50 Hz
Weight	7.5 kg
Color	Light gray (RAL7035)
Housing material	Metal
Conformity marking	CE
Surrounding air temperature (operation)	0 ... 45 °C
Surrounding air temperature (storage)	-40 ... +85 °C
Protection type	IP20/IP65; (IP65 only applies when both power and LAN cables are locked)
Pollution degree	I
Relative humidity (without condensation)	95 %
Mounting type	Wall-mount

WAGO IoT Box; Energy Data 4G with Controller PFC200 (750-8217)



Integrating machines and systems into the "Internet of Things" is incredibly quick and easy with the WAGO IoT Box Energy Data 4G.

This IoT Box features power and energy measurement functionality and is ready for immediate use. It also offers all the functions required for digitalization, from signal acquisition to cloud connectivity.

The IoT Box was designed as a plug-and-play device – no hardware engineering is needed. Collected data is transferred to the desired IoT application with just a few parameter settings.

The hardware includes a controller with its own communication interface, I/O modules with analog and digital inputs/outputs, a 3-phase power measurement module and a 24 V power supply unit.

The integrated 4G cellular modem provides a wireless connection to the Internet and includes a radio license for EU countries.

Depending on the application, additional I/O modules can be added later to adapt the system to specific requirements.

Item Description	Item No.
IoT Box; Energy Data 4G	2854-099/000-003
This IoT Box includes:	
Controller PFC200; 2nd generation; 2 x ETHERNET, RS-232/-485, 4G cellular module	750-8217
Magnetic-Mount Antenna; with 2.5 m cable and SMA plug; GSM/UMTS/LTE/Bluetooth®/WLAN; 698-960, 1400-1518, 1710-2700 MHz	758-975
Switched-Mode Power Supply; Classic; 1-phase; Output voltage: 24 VDC; Output current: 2 A; NEC Class 2; DC OK signal	787-1606
8-Channel Digital Input; 24 VDC; 3 ms; 2-wire connection	750-1415
8-Channel Digital Output; 24 VDC; 0.5 A; 2-wire connection	750-1515
8-Channel Analog Input; Resistance measurement; Adjustable	750-451
4-Channel Analog Input; Voltage/current; Differential input; 16 bits; Diagnostics	750-471
3-Phase Power Measurement; 690 VAC 1 A	750-495
Rogowski Coil; Primary rated current: 4000 A; Output signal: 22.5 mV per kA; Cable length: 1.5 m; Feedthrough for measurement conductor: 70 mm	855-9150/2000-701
End Module	750-600
SD Memory Card; pSLC-NAND; 8 GB Temperature range: -40 ... +90 °C	758-879/000-2108
IoT Box application (installed and licensed)	
Circuit breaker; 1-pole; C 10 A; 10 kA	
Electrical circuit breaker; 1-pole; 24 VDC; 1 ... 8 A	
Set of wall-mount lugs	
Cable grips M16; M20; M25	
Connectors (plug and socket) for power supply	

Communication	ETHERNET; RS-232 interface; RS-485 interface; MQTT
ETHERNET protocols	DHCP, DNS, FTP, FTPS, HTTP, HTTPS, SSH
Transmission rate	ETHERNET: 10/100 Mbit/s
Visualization	Web-Visu
Services	GPRS connection to Internet
Wireless technology	GSM/UMTS/LTE
Frequency band	GSM dual band (B3; B8); E-UTRA bands (B1; B3; B5; B7; B8; B20; B38; B40; B41)
Dimensions W x H x D	300 x 300 x 210
Power supply (AC)	230 VAC (L/N/GND); 50 Hz
Weight	7.5 kg
Color	Light gray (RAL7035)
Housing material	Metal
Conformity marking	CE
Surrounding air temperature (operation)	0 ... 45 °C
Surrounding air temperature (storage)	-40 ... +85 °C
Protection type	IP20/IP65; (IP65 only applies when both power and LAN cables are locked)
Pollution degree	I
Relative humidity (without condensation)	95 %
Mounting type	Wall-mount

WAGO IoT Box; MES 4G with Controller PFC200 (750-8217)



Integrating machines and systems into the "Internet of Things" is incredibly quick and easy with the WAGO IoT Box MES 4G. This IoT Box also offers a wide range of communication and bus protocols for communicating with production control systems. The complete system is ready for immediate use and offers all the functions required for digitalization, from signal acquisition to cloud connectivity.

The IoT Box was designed as a plug-and-play device – no hardware engineering is needed. Collected data is transferred to the desired IoT application with just a few parameter settings.

The hardware includes a controller with its own communication interface, I/O modules with analog and digital inputs/outputs and a 24 V power supply unit.

The integrated 4G cellular modem provides a wireless connection to the Internet and includes a radio license for EU countries.

Depending on the application, additional I/O modules can be added later to adapt the system to specific requirements.

Manufacturing Execution Systems (MES)

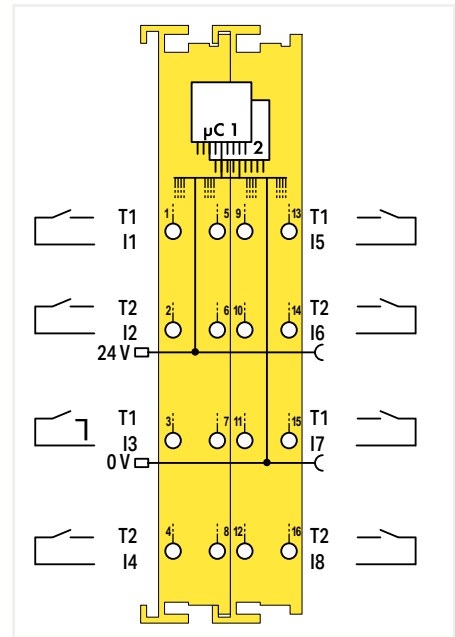
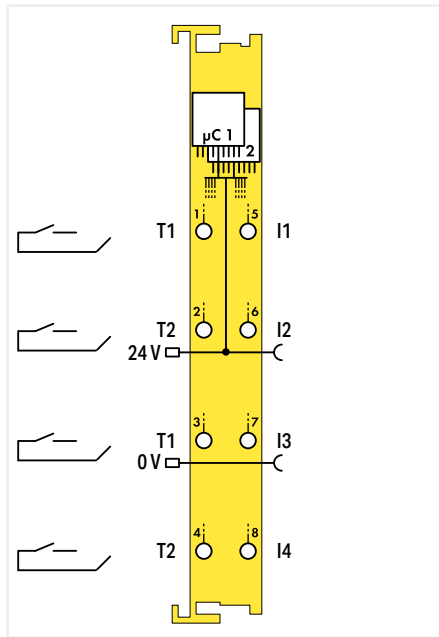
Item Description	Item No.
IoT Box; MES 4G	2854-099/000-004

This IoT Box includes:

Controller PFC200; 2nd generation; 2 x ETHERNET, RS-232/-485, 4G cellular module	750-8217
Magnetic-Mount Antenna; with 2.5 m cable and SMA plug; GSM/UMTS/LTE/Bluetooth®/WLAN; 698-960, 1400-1518, 1710-2700 MHz	758-975
Switched-Mode Power Supply; Classic; 1-phase; Output voltage: 24 VDC; Output current: 2 A; NEC Class 2; DC OK signal	787-1606
8-Channel Digital Input; 24 VDC; 3 ms; 2-wire connection	750-1415
8-Channel Digital Output; 24 VDC; 0.5 A; 2-wire connection	750-1515
8-Channel Analog Input; Resistance Measurement; Adjustable	750-451
4-Channel Analog Input; Voltage/current; Differential input; 16 bits; Diagnostics	750-471
End Module	750-600
SD Memory Card; pSLC-NAND; 8 GB Temperature range: -40 ... +90 °C	758-879/000-2108
Energy Data Management (EDM) application (installed and licensed)	
Circuit breaker; 1-pole; C 10 A; 10 kA	
Electrical circuit breaker; 1-pole; 24 VDC; 1 ... 8 A	
Set of wall-mount lugs	
Cable grips M16; M20; M25	
Connectors (plug and socket) for power supply	

Communication	ETHERNET; Modbus (TCP, UDP); Modbus RTU; RS-232 interface; RS-485 interface; MQTT
ETHERNET protocols	DHCP, DNS, FTP, FTPS, HTTP, HTTPS, SSH
Transmission rate	ETHERNET: 10/100 Mbit/s
Visualization	Web-Visu
Services	GPRS connection to Internet
Wireless technology	GSM/UMTS/LTE
Frequency band	GSM dual band (B3; B8); E-UTRA bands (B1; B3; B5; B7; B8; B20; B38; B40; B41)
Dimensions W x H x D	300 x 300 x 210
Power supply (AC)	230 VAC (L/N/GND); 50 Hz
Weight	7.5 kg
Color	Light gray (RAL7035)
Housing material	Metal
Conformity marking	CE
Surrounding air temperature (operation)	0 ... 45 °C
Surrounding air temperature (storage)	-40 ... +85 °C
Protection type	IP20/IP65; (IP65 only applies when both power and LAN cables are locked)
Pollution degree	I
Relative humidity (without condensation)	95 %
Mounting type	Wall-mount

Functional safety ▶ Digital input



Item description
Version
Item no.
Order text

Safe 4-channel digital input; 24 VDC; PROFIsafe	
Standard	pluggable
750-661/000-004	753-661/000-004
4FDI 24V PROFIsafe	4FDI 24V PROFIsafe

Safe 8-channel digital input; 24 VDC; PROFIsafe	
Standard	pluggable
750-662/000-004	753-662/000-004
8FDI 24V PROFIsafe	8FDI 24V PROFIsafe

Technical data
Pluggable connector
Number of digital inputs
Achievable safety classes
Interface types according to ZVEI (inputs)
Protocols
Configuration options
Input characteristic
Input characteristic
Input current per channel for signal (1) typ.
Signal frequency (max.)
Output current per channel
Supply voltage (field)
Current consumption (5 V system supply)
Ambient temperature (operation)
Dimensions W x H x D
Functional safety
Safety standards
Approvals

	fixed	pluggable
	4	
	SIL 3; Category 4, PLc (two-channel); SIL 2; Category 2; PLd (one-channel)	
	Drain; A, C0, C1, C2, C3	
	PROFIsafe V2.6 (PROFINET)	
	PROFIsafe address adjustable via DIP switch or engineering software	
	clock sensitive	
	Type 1 per IEC 61131	
	3 mA	
	50 Hz	
	0.1 A	
	24 VSELV/PELV DC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact)	
	120 mA	
	0 ... +55 °C	
	(12 x 100 x 67.8) mm	
	IEC 61508-1 ... -7; EN ISO 13849-1; EN 62061	
	CE; Marine; OrdLoc/HazLoc	

	fixed	pluggable
	8	
	SIL 3; Category 4, PLc (two-channel); SIL 2; Category 2; PLd (one-channel)	
	Drain; A, C0, C1, C2, C3	
	PROFIsafe V2.6 (PROFINET)	
	PROFIsafe address adjustable via DIP switch or engineering software	
	clock sensitive	
	Type 1 per IEC 61131	
	3 mA	
	50 Hz	
	0.1 A	
	24 VSELV/PELV DC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact)	
	120 mA	
	0 ... +55 °C	
	(24 x 100 x 67.8) mm	
	IEC 61508-1 ... -7; EN ISO 13849-1; EN 62061	
	CE; Marine; OrdLoc/HazLoc	

For data sheet and additional information, see:

wago.com/750-661/000-004	wago.com/753-661/000-004
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Accessories
Plug; Safety

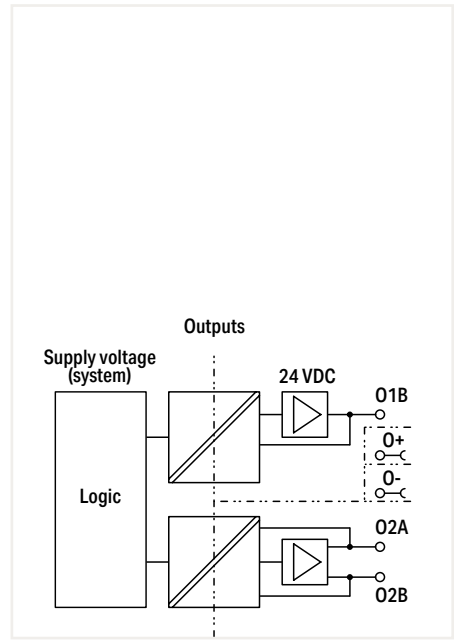
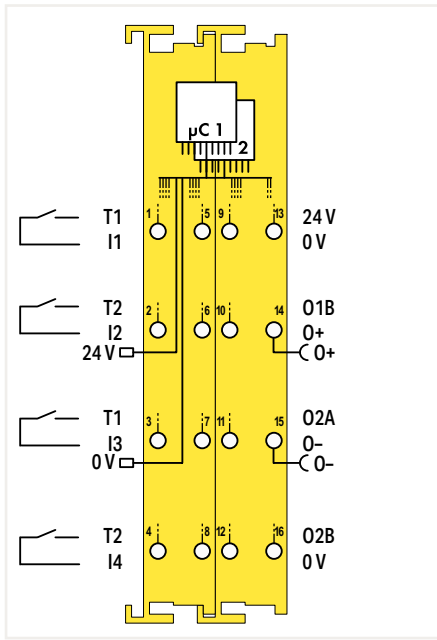
Item no.	Item no.
-	753-120

Item no.	Item no.
-	753-120

Support for iPar servers allows automatic parameter restoration when replacing an I/O module.

Support for iPar servers allows automatic parameter restoration when replacing an I/O module.

Functional safety ▶ Digital input; Digital output



Item description	Safe 4/2 channel digital input/output; 24 VDC; 10 A; PROFIsafe
Version	Standard
Item no.	750-666/000-004
Order text	4FDI/2FDO 24V/10A PROFIsafe

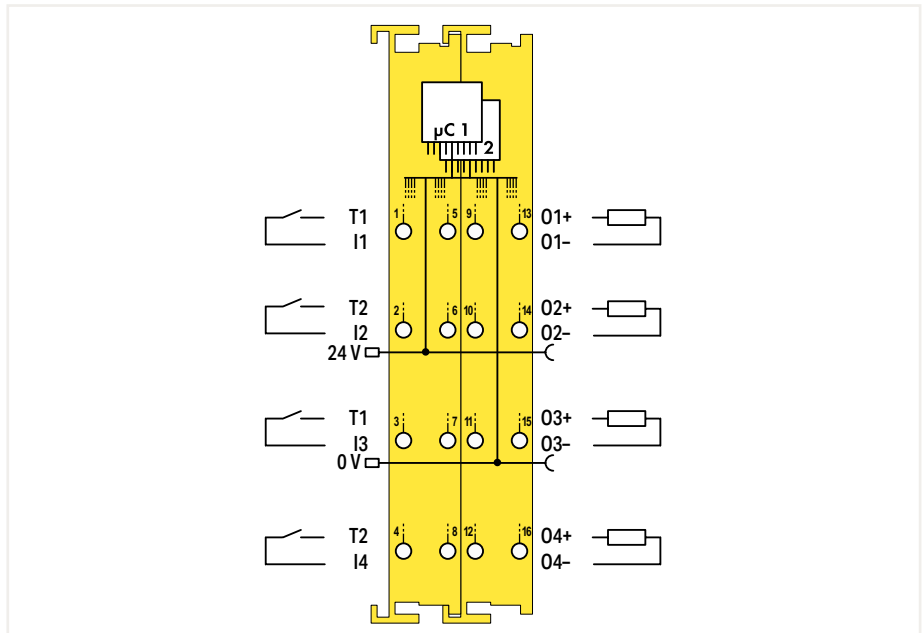
Technical data	
Number of digital inputs	4
Achievable safety classes	SIL 3; Category 4, PL _e (two-channel); SIL 2; Category 2; PL _d (one-channel)
Interface types according to ZVEI (inputs)	Drain; A, C0, C1, C2, C3
Protocols	PROFIsafe V2.6 (PROFINET)
Configuration options	PROFIsafe address adjustable via DIP switch or engineering software
Sensor connection	4 x (Fail-safe input with test pulse)
Input characteristic	clock sensitive
Input characteristic	Type 1 per IEC 61131
Input current per channel for signal (1) typ.	3 mA
Signal frequency (max.)	50 Hz
Number of digital outputs	2
Interface types according to ZVEI (outputs)	Source; C0, C1, C2, C3, D0, D1, D2, D3
Output circuit design	Power outputs
Actuator connection	2 x (fail-safe output with test pulse)
Output current per channel	10 A
Output current	short-circuit-protected
Output current (module)	20 A
Switching frequency (max.)	50 Hz; Resistive load
Switching frequency (max.) (2)	0.1 Hz; Inductive load
Switching frequency (max.) (3)	0.1 Hz; Capacitive load
Supply voltage (field)	24 VSELV/PELV DC (-25 ... +30 %); via power jumper contacts (power supply via blade contact)
Current consumption (5 V system supply)	120 mA
Ambient temperature (operation)	0 ... +55 °C
Functional safety	
Safety standards	IEC 61508-1 ... -7; EN ISO 13849-1; EN 62061
Approvals	CE; Marine; OrdLoc/HazLoc

For data sheet and additional information, see:

wago.com/750-666/000-004

This module enables a fail-safe 2-channel switch-off (single failure protection) when the power outputs are used in a bipolar configuration. If a fail-safe 1-channel switch-off is adequate, two independent switching channels are available. The module is capable of safely shutting off the supply voltage of entire actuator groups which are connected to the standard modules arranged to the right. The 2-channel circuit types P-M and P-P, as well as the 1-channel circuit types P, P or P, M are available. Support for iPar servers allows automatic parameter restoration when replacing an I/O module.

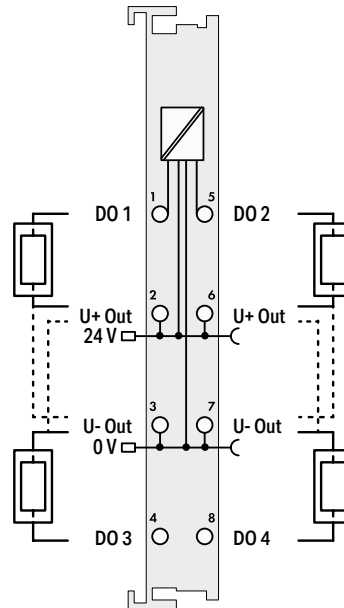
Functional safety ▶ Digital input; Digital output



Item description		Safe 4/4 channel digital input/output; 24 VDC; 2 A; PROFIsafe	
Version		Standard	pluggable
Item no.	750-667/000-004		753-667/000-004
Order text	4FDI/4FDO 24V/2A PROFIsafe		4FDI/4FDO 24V/2A PROFIsafe
Technical data			
Pluggable connector		fixed	pluggable
Number of digital inputs		4	
Achievable safety classes		SIL 3; Category 4, PLe (two-channel); SIL 2; Category 2; PLd (one-channel)	
Interface types according to ZVEI (inputs)		Drain; A, C0, C1, C2, C3	
Protocols		PROFIsafe V2.6 (PROFINET)	
Configuration options		PROFIsafe address adjustable via DIP switch or engineering software	
Sensor connection		4 x (Fail-safe input with test pulse)	
Input characteristic		clock sensitive	
Input characteristic		Type 1 per IEC 61131	
Input current per channel for signal (1) typ.		3 mA	
Signal frequency (max.)		50 Hz	
Number of digital outputs		4	
Interface types according to ZVEI (outputs)		Source; C0, C1, C2, C3, D0, D1, D2, D3	
Output circuit design		Power outputs	
Actuator connection		4 x (fail-safe output with test pulse)	
Output current per channel		2 A	
Output current		short-circuit-protected	
Output current (module)		8 A	
Capacitive load for each channel		O1 ... O4; 47 µF	
Switching frequency (max.)		50 Hz; Resistive load	
Switching frequency (max.) (2)		0.1 Hz; Inductive load	
Supply voltage (field)		24 VSELV/PELV DC (-25 ... +20 %); via power jumper contacts (power supply via blade contact; transmission via spring contact)	
Current consumption (5 V system supply)		120 mA	
Ambient temperature (operation)		0 ... +55 °C	
Dimensions W x H x D		(24 x 100 x 67.8) mm	
Functional safety			
Safety standards		IEC 61508-1 ... -7; EN ISO 13849-1; EN 62061	
Approvals		CE; Marine; OrdLoc/HazLoc	
For data sheet and additional information, see:		wago.com/750-667/000-004	wago.com/753-667/000-004
Accessories		Item no.	Item no.
Plug; Safety		-	753-120

Support for iPar servers allows automatic parameter restoration when replacing an I/O module.

Function and technology modules ► Pulse width modulation



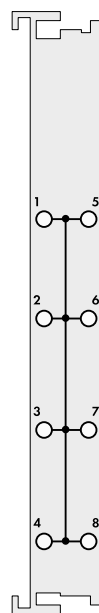
Item description	4-Channel Pulse Width Outputs; 24 VDC; 0.2 A; 20 kHz
Version	Standard
Item no.	750-677
Order text	4PWM; 24 VDC; 0.2A; 20kHz
Technical data	
Number of digital outputs	4
Pulse frequency	0 ... 20,000 Hz; integer
Duty cycle	0 ... 100 %; 11-bit resolution
Output current per channel	0.2 A
Output current	short-circuit-protected; 0.4 A, short-circuit-protected in bridge mode
Switching frequency (max.)	20 kHz
Supply voltage (field)	24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact)
Current consumption (5 V system supply)	85 mA
Data width	4 x 16-bit data; 4 x 8-bit control/status
Operating mode	1: PWM DC (variable duty cycle); 2: PWM Frq (variable frequency); 3: PWM Frq - Cnt; 4: Pulse Frq - Cnt; 5: PWM Pulse - Dir
Isolation	500 V system/field
Ambient temperature (operation)	0 ... +55 °C
Dimensions W x H x D	(12 x 100 x 67.8) mm
Approvals	CE
Approvals (pending)	Marine; OrdLoc/HazLoc
For data sheet and additional information, see:	wago.com/750-677

This module outputs separately adjustable PWM signals at four channels. The channels can be individually configured as LSS (low-side switching) or HSS (high-side switching) and are short-circuit protected. The PWM signals are each 16 bits wide.

The module supports five operating modes. In both "PWM DC" and "PWM Frq" operating modes, all four channels may be used independently. The bridge mode can also be activated if the same operating mode is set on each channel pair (1 and 2 or 3 and 4). Both channels work synchronously and can be connected in parallel. In the other three complex operating modes, two channels functionally correlate with each other. The first channel outputs the PWM signal and the second channel a static signal ("0" or "1").

Refer to the manual ("Operating Modes" section) for all setting options and the bit signification in the process image. The "PWM DC" operating mode is set by default.

Supply and segment modules ► Bus end module



Item description

Version

Item no.

Order text

End Module; with Potential Group

Standard

750-600/000-001

End Module; with Potential Group

Technical data

Supply voltage (system)

5 VDC; via data contacts

Voltage (potential group)

0 ... 230 VAC/DC; Supply via CAGE CLAMP® contacts

Rated surge voltage

5 kV per EN 60870-2-1 / Class VW3, or 6.4 kV per EN 61010-1

Ambient temperature (operation)

0 ... +55 °C

Dimensions W x H x D

(12 x 100 x 67.8) mm

Approvals

CE; Marine; OrdLoc/HazLoc

For data sheet and additional information, see:

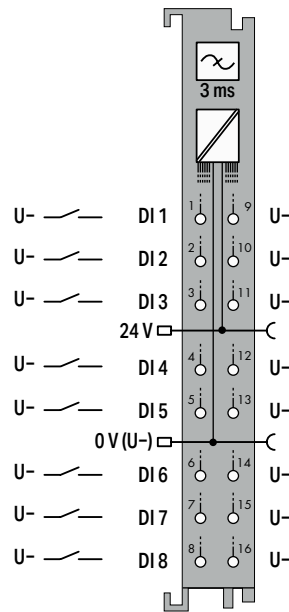
wago.com/750-600/000-001

An end module must be snapped onto the assembly at the end of a fieldbus node.

In addition, the 8 CAGE CLAMP® connections are brought together as a potential group.

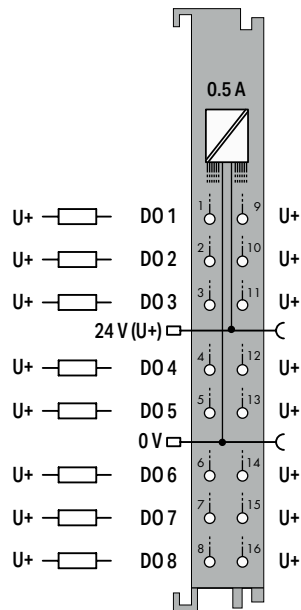
The end module completes the internal data bus, while providing correct data transmission.

Digital input



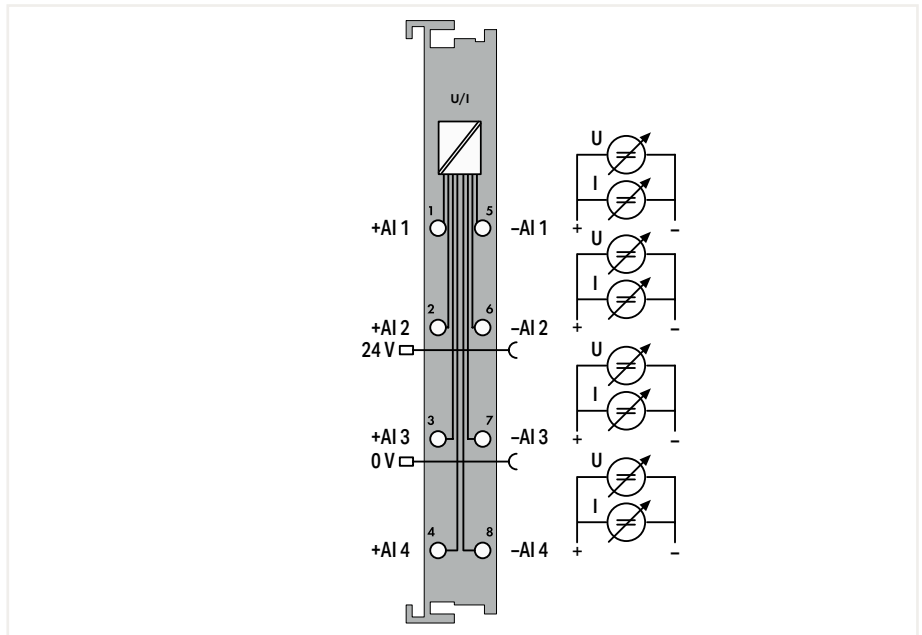
Item description	8-Channel Digital Input; 24 VDC; 3 ms; Low-Side Switching; 2-Wire Connection
Version	extreme with 16 connectors
Item no.	750-1417/040-000
Order text	8DI; 24 VDC; 3ms; LSS; 2-wire; XTR
Technical Data	
Number of digital inputs	8
Signal type	Voltage
Signal type (voltage)	24 VDC
Voltage range for signal (0)	($U_V - 5 V$) ... U_V DC
Voltage range for signal (1)	-3 VDC ... ($U_V - 15 V$)
Sensor connection	8 x (2-wire)
Input characteristic	low-side switching
Input filter (digital)	3 ms
Input current per channel for signal (0) typ.	2.4 mA
Dielectric strength	510 VAC/775 VDC; per EN 60870-2-1
Supply voltage (sensor)	24 VDC
Supply voltage (field)	24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact); Derating must be observed!
Derating	Derating (supply voltage): Surrounding air temperatures under laboratory conditions: (-25 ... +30 %); for -40 ... +55 °C: 24 V (-25 ... +20 %); for +55 ... +70 °C: 24 V (-25 ... +10 %); Lower limit in all temperature ranges: -27.5 % (including 15 % residual ripple)
Current consumption (5 V system supply)	12 mA
Rated surge voltage	1 kV
Input data width (internal) max.	8 bits
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	(12 x 100 x 69) mm
Approvals	CE; Marine; OrdLoc/HazLoc
For data sheet and additional information, see:	wago.com/750-1417/040-000

Digital output



Item description	8-Channel Digital Output; 24 VDC; 0.5 A; Low-Side Switching; 2-Wire Connection
Version	extreme with 16 connectors
Item no.	750-1516/040-000
Order text	8DO 24 VDC 0.5A LSS 2-wire XTR
Technical Data	
Number of digital outputs	8
Signal type	Voltage
Signal type (voltage)	24 VDC
Output characteristic	low-side switching
Output current per channel	0.5 A
Output current	short-circuit-protected
Load type	Resistive, inductive, lamp load
Actuator connection	8 x (2-wire)
Switching frequency (max.)	1 kHz
Supply voltage (field)	24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact); Derating must be observed!
Derating	Derating (supply voltage): Surrounding air temperatures under laboratory conditions: (-25 ... +30 %); for -40 ... +55 °C: 24 V (-25 ... +20 %); for +55 ... +70 °C: 24 V (-25 ... +10 %); Lower limit in all temperature ranges: -27.5 % (including 15 % residual ripple)
Current consumption, field supply (module with no external load)	8 mA
Current consumption (5 V system supply)	20 mA
Output data width (internal) max.	8 bits
Rated surge voltage	1 kV
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	(12 x 100 x 69) mm
Approvals	CE; Marine; OrdLoc/HazLoc
For data sheet and additional information, see:	wago.com/750-1516/040-000

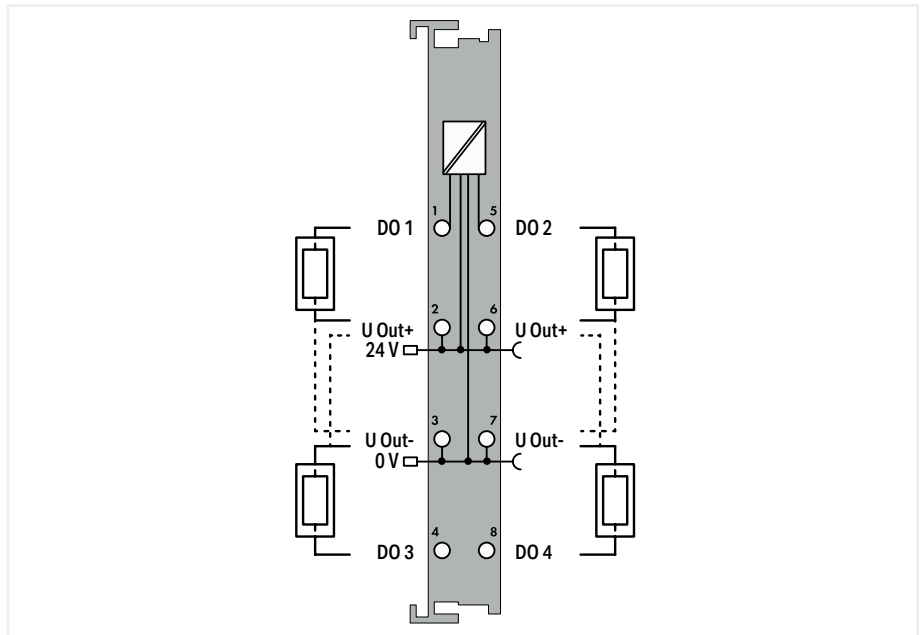
Analog input



Item description	4-Channel Analog Input; for Voltage/Current
Version	extreme
Item no.	750-471/040-000
Order text	4AI U/I Diff Galv XTR

Technical Data	
Number of analog inputs	4
Signal type	Current; Voltage
Signal type (current)	0 ... 20 mADC; 4 ... 20 mADC; 3.6 ... 21 mADC; -20 ... +20 mADC
Signal type (voltage)	0 ... 10 VDC; -10 ... +10 VDC; -0.2 ... +0.2 VDC
Signal characteristics	Differential
Sensor connection	4 x (2-wire)
Resolution [bit]	16 bits
Conversion time (typ.)	10 ms
Input resistance (max.)	120 Ω
Internal resistance	100 kΩ
Input voltage (max.)	31.2 VDC
Reference for measurement error	Input ranges
Measurement error (reference temperature)	25 °C
Measurement error, deviation (max.) from the upper-range value	0.1 %
Reference for measurement error (2)	±200 mV
Measurement error, reference temperature (2)	25 °C
Measurement error, deviation (max.) of the upper-range value (2)	0.3 %
Temperature error (max.) of the upper-range value	0.01 %/K
Supply voltage (field)	24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact); Derating must be observed!
Derating	Derating (supply voltage): Surrounding air temperatures under laboratory conditions: (-25 ... +30 %); for -40 ... +55 °C: 24 V (-25 ... +20 %); for +55 ... +70 °C: 24 V (-25 ... +10 %); Lower limit in all temperature ranges: -27.5 % (including 15 % residual ripple)
Current consumption (5 V system supply)	100 mA
Data width	4 x 16-bit data; 4 x 8-bit control/status (optional)
Isolation	Functional insulation: 2000 VDC system/channel; 2000 VDC channel/channel
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	(12 x 100 x 67.8) mm
Approvals	CE; Marine; OrdLoc/HazLoc
For data sheet and additional information, see:	wago.com/750-471/040-000

Pulse width modulation



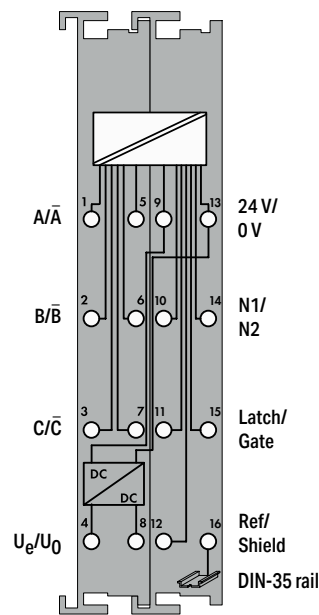
Item description	4-Channel Pulse Width Outputs; 24 VDC; 0.2 A; 20 kHz
Version	extreme
Item no.	750-677/040-000
Order text	4PWM; 24 VDC; 0.2A; 20kHz; XTR
Technical data	
Number of digital outputs	4
Pulse frequency	0 ... 20,000 Hz; integer
Duty cycle	0 ... 100 %; 11-bit resolution
Output current per channel	0.2 A
Output current	short-circuit-protected; 0.4 A, short-circuit-protected in bridge mode
Switching frequency (max.)	20 kHz
Supply voltage (field)	24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact); Derating must be observed!
Derating	Derating (supply voltage): Surrounding air temperatures under laboratory conditions: (-25 ... +30 %); for -40 ... +55 °C: 24 V (-25 ... +20 %); for +55 ... +70 °C: 24 V (-25 ... +10 %); Lower limit in all temperature ranges: -27.5 % (including 15 % residual ripple)
Current consumption (5 V system supply)	85 mA
Rated surge voltage	1 kV
Data width	4 x 16-bit data; 4 x 8-bit control/status
Operating mode	1: PWM DC (variable duty cycle); 2: PWM Frq (variable frequency); 3: PWM Frq - Cnt; 4: Pulse Frq - Cnt; 5: PWM Pulse - Dir
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	(12 x 100 x 67.8) mm
Approvals	CE
Approvals (pending)	Marine; OrdLoc/HazLoc
For data sheet and additional information, see:	wago.com/750-677/040-000

This module outputs separately adjustable PWM signals at four channels. The channels can be individually configured as LSS (low-side switching) or HSS (high-side switching) and are short-circuit protected. The PWM signals are each 16 bits wide.

The module supports five operating modes. In both "PWM DC" and "PWM Frq" operating modes, all four channels may be used independently. The bridge mode can also be activated if the same operating mode is set on each channel pair (1 and 2 or 3 and 4). Both channels work synchronously and can be connected in parallel. In the other three complex operating modes, two channels functionally correlate with each other. The first channel outputs the PWM signal and the second channel a static signal ("0" or "1").

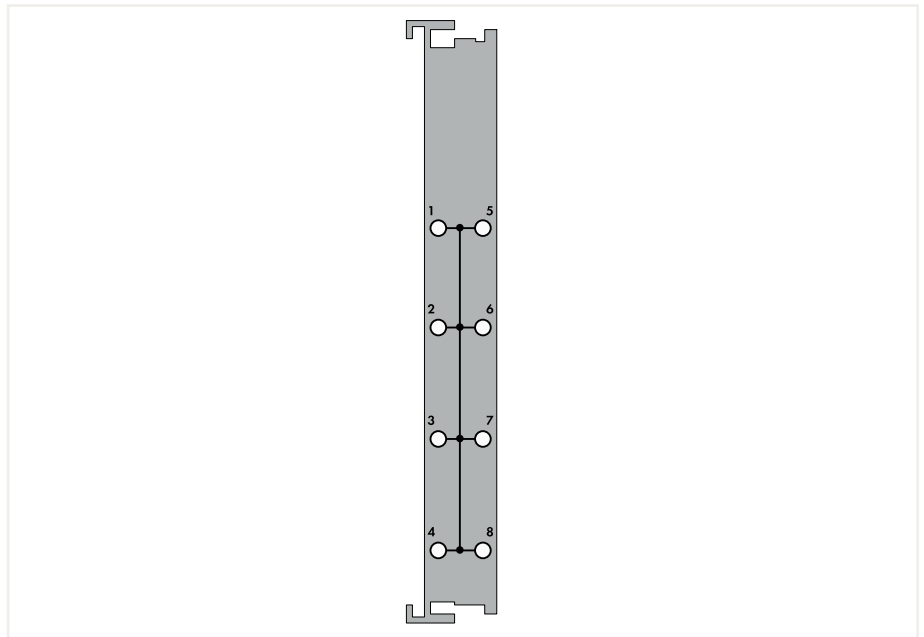
Refer to the manual ("Operating Modes" section) for all setting options and the bit signification in the process image. The "PWM DC" operating mode is set by default.

Distance and angle measurement



Item description	Incremental Encoder Interface; RS-422; 32 Bits
Version	extreme
Item no.	750-637/040-000
Order text	Inc. Encoder; RS422; 32Bit; XTR
Technical data	
Encoder connection	A; /A; B; /B; C; /C (RS-422 inputs)
Counter depth	32 bits
Limit frequency	250 kHz
Quadrature decoder	4x evaluation
Zero impulse (latch)	32 bits
Commands	Reading, setting, activating
Supply voltage (encoder)	5 VDC
Output voltage	24 VDC
Output current per channel	0.5 A
Output current	short-circuit-protected
Voltage range for signal (0)	U_{ABC} = RS-422; Latch, gate, ref.: -3 ... +5 VDC
Voltage range for signal (1)	U_{ABC} = RS-422; Latch, gate, ref.: 15 ... 30 VDC
Input current (typ.)	Latch 7 mA, Gate 7 mA, Ref. 7 mA
Current consumption, field supply (module with no external load)	35 mA
Current consumption (5 V system supply)	110 mA
Rated surge voltage	1 kV
Data width	1 x 32-bit data 2 x 8-bit control/status
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	(24 x 100 x 67.8) mm
Approvals	CE; Marine; OrdLoc/HazLoc
For data sheet and additional information, see:	wago.com/750-637/040-000

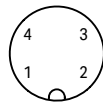
Bus end module



Item description	End Module; with Potential Group
Version	extreme
Item no.	750-600/040-001
Order text	End Module; with Potential Group; XTR
Technical data	
Supply voltage (system)	5 VDC; via data contacts
Voltage (potential group)	0 ... 230 VAC/DC; Supply via CAGE CLAMP® contacts
Rated surge voltage	5 kV per EN 60870-2-1 / Class VW3, or 6.4 kV per EN 61010-1
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	(12 x 100 x 67.8) mm
Approvals	CE; Marine; OrdLoc/HazLoc
For data sheet and additional information, see:	wago.com/750-600/040-001

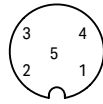
An end module must be snapped onto the assembly at the end of a fieldbus node.
In addition, the 8 CAGE CLAMP® connections are brought together as a potential group.
The end module completes the internal data bus, while providing correct data transmission.

1-Channel Analog Input; IO-Link Converter; 4 ... 20 mA



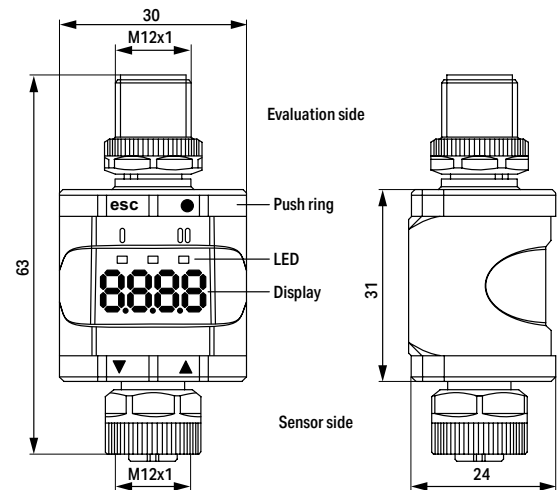
M12-A plug; 4-pole

- 1: 24 VDC: Supply 1L+
- 2: OUT2: Analog output
- 3: 0 V: Supply 1L-
- 4: OUT1: Digital output (SIO)/IO-Link



M12-A socket; 5-pole

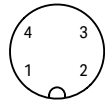
- 1: Sensor supply 1L+
- 2: Analog input (4 ... 20 mA)
- 3: Sensor supply 1L-
- 4: not used
- 5: not used



Available December 2022

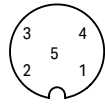
Item Description	1-Channel Analog Input; IO-Link Converter; 4 ... 20 mA
Item No.	765-2701/200-000
Order Text	1AI FLD IOL CONV 4-20mA
Technical Data	
Supply voltage	24 VDC; -25 ... +25 %; (18 ... 30 VDC)
Current consumption	30 ... 830 mA
Operation modes	SIO; IO-Link
Inputs	
Number of analog inputs	1
Connection technology	M12-A socket; 5-pole
Signal type (current)	4 ... 20 mA
Sensor supply	24 VDC
Sensor current	≤ 800 mA
Accuracy	0.5 % of the upper-range value
Outputs	
Digital output (OUT 1)	
Number of digital outputs	1
Connection technology	M12-A plug; 4-pole
Current carrying capacity per output	50 mA
Signal type (voltage)	10 ... 30 VDC
Output circuit design	Make/break contact; parameterizable
Analog output (OUT 2)	
Number of analog outputs	1
Signal type (current)	4 ... 20 mA
Accuracy	0.5 % of the upper-range value
Resolution	10 bits
IO-Link	
Communication interface	IO-Link Class A
Transmission type	COM2 (38.4 kBaud)
IO-Link revision	1.1
Process data	1 x 16-bit IN (analog); 1 x 16-bit IN (digital)
Process cycle time (min.)	3 ms
Parameters via IO-Link	Operating mode, switching point, delay, scaling, etc.
Indicators	Digital output: 1 x yellow LED; Power: 1 x green LED; Display: 7-segment red/green LED
Length of connection cables	30 m without IO-Link on each side; 20 m with IO-Link on the master side
Dimensions	63 x 30 x 24 mm
Ambient temperature (operation)	-20 ... +60 °C
Ambient temperature (storage)	-25 ... 70 °C
Protection type	IP67
Relative humidity (without condensation)	90 % (max.)
Approvals	CE, UL, IO-Link, MTTF (373 years)
For data sheet and additional information, see:	wago.com/765-2701/200-000
Accessories	Item No.
Mounting Clip	765-101/000-000

2-Channel Analog Input; IO-Link Converter; 0 ... 10 V



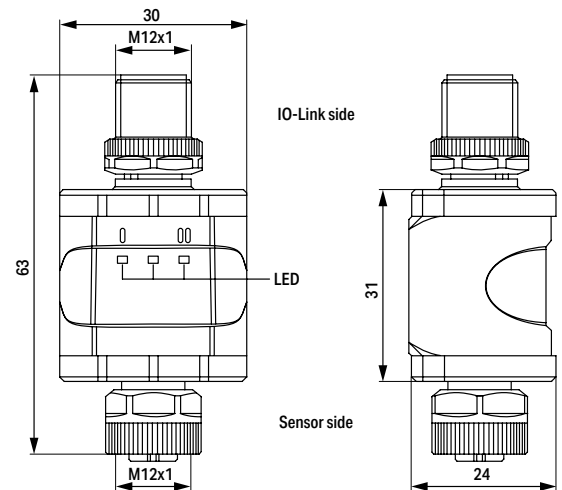
M12-A plug; 4-pole

- 1: 24 VDC: Supply 1L+
- 2: not used
- 3: 0 V: Supply 1L-
- 4: C/Q IO-Link



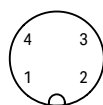
M12-A socket; 5-pole

- 1: Sensor supply 1L+
- 2: Analog input 2 (0 ... 10 V)
- 3: Sensor supply 1L-
- 4: Analog input 1 (0 ... 10 V)
- 5: not used



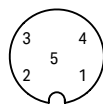
Item Description	2-Channel Analog Input; IO-Link Converter; 0 ... 10 V
Item No.	765-2702/200-000
Order Text	2AI FLD IOL CONV 0-10V
Technical Data	
Supply voltage	24 VDC; -25 ... +25 %; (18 ... 30 VDC)
Current consumption	< 380 mA
Inputs	
Number of analog inputs	2
Connection technology	M12-A socket; 5-pole
Signal type (voltage)	0 ... 10 V
Current carrying capacity for all inputs	200 mA (max.)
Input resistance	> 100 kΩ
Accuracy	0.25 % of the upper-range value
IO-Link	
Communication interface	IO-Link Class A/B
Transmission type	COM2 (38.4 kBaud)
IO-Link revision	1.1
Process data	2 x 16-bit IN (analog)
Process cycle time (min.)	4.6 ms
Parameters via IO-Link	Description, system identifier, location identifier, mean value filter
Indicators	
Length of connection cables	20 m
Dimensions	
Ambient temperature (operation)	-20 ... +60 °C
Ambient temperature (storage)	-25 ... 70 °C
Protection type	IP67
Relative humidity (without condensation)	90 % (max.)
Approvals	
For data sheet and additional information, see:	CE, UL, IO-Link, MTTf (504 years) wago.com/765-2702/200-000
Accessories	
Mounting Clip	765-101/000-000

2-Channel Analog Output; IO-Link Converter; 4 ... 20 mA



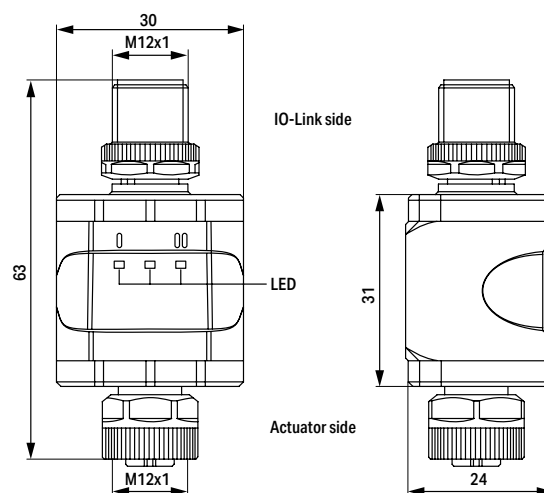
M12-A plug; 4-pole

- 1: 24 VDC: Supply 1L+
- 2: not used
- 3: 0 V: Supply 1L-
- 4: C/Q IO-Link



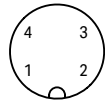
M12-A socket; 5-pole

- 1: Actuator supply 1L+
- 2: Analog output 2 (4 ... 20 mA)
- 3: Actuator supply 1L-
- 4: Analog output 1 (4 ... 20 mA)
- 5: not used



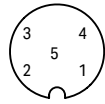
Item Description	2-Channel Analog Output; IO-Link Converter; 4 ... 20 mA
Item No.	765-2703/200-000
Order Text	2AO FLD IOL CONV 4-20mA
Technical Data	
Supply voltage	24 VDC; -25 ... +25 %; (18 ... 30 VDC)
Current consumption	300 mA
Current carrying capacity (module)	0.2 A
Operation modes	IO-Link
Outputs	
Number of analog outputs	2
Connection technology	M12-A socket; 5-pole
Signal type (current)	4 ... 20 mA
Load impedance	≤ 300 Ω
Accuracy	0.25 % of output range end value
IO-Link	
Communication interface	IO-Link Class A/B
Transmission type	COM2 (38.4 kBaud)
IO-Link revision	1.1
Process data	2 x 16-bit OUT (analog)
Process cycle time (min.)	3.6 ms
Parameters via IO-Link	Description
Indicators	Analog output: 2 x yellow LED; Power: 1 x green LED
Length of connection cables	20 m
Dimensions	63 x 30 x 24 mm
Ambient temperature (operation)	-20 ... +60 °C
Ambient temperature (storage)	-25 ... 70 °C
Protection type	IP67
Relative humidity (without condensation)	90 % (max.)
Approvals	CE, UL, IO-Link, MTTF (352 years)
For data sheet and additional information, see:	wago.com/765-2703/200-000
Accessories	Item No.
Mounting Clip	765-101/000-000

2-Channel Analog Output; IO-Link Converter; 0 ... 10 V



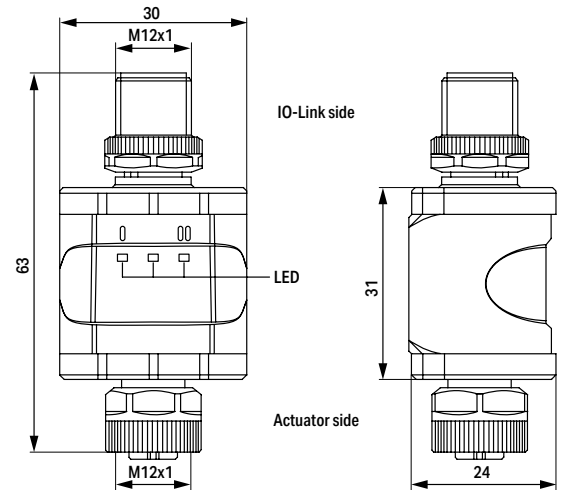
M12-A plug; 4-pole

- 1: 24 VDC: Supply 1L+
- 2: not used
- 3: 0 V: Supply 1L-
- 4: C/Q IO-Link



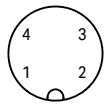
M12-A socket; 5-pole

- 1: Actuator supply 1L+
- 2: Analog output 2 (0 ... 10 V)
- 3: Actuator supply 1L-
- 4: Analog output 1 (0 ... 10 V)
- 5: not used



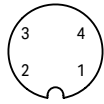
Item Description	2-Channel Analog Output; IO-Link Converter; 0 ... 10 V
Item No.	765-2704/200-000
Order Text	2AO FLD IOL CONV 0-10V
Technical Data	
Supply voltage	24 VDC; -25 ... +25 %; (18 ... 30 VDC)
Current consumption	300 mA
Current carrying capacity (module)	0.2 A
Operation modes	IO-Link
Outputs	
Number of analog outputs	2
Connection technology	M12-A socket; 5-pole
Signal type (voltage)	0 ... 10 V
Load impedance	≤ 3000 Ω
Accuracy	0.25 % of output range end value
IO-Link	
Communication interface	IO-Link Class A/B
Transmission type	COM2 (38.4 kBaud)
IO-Link revision	1.1
Process data	2 x 16-bit OUT (analog)
Process cycle time (min.)	3.6 ms
Parameters via IO-Link	Description, system identifier, location identifier
Indicators	Analog output: 2 x yellow LED; Power: 1 x green LED
Length of connection cables	20 m
Dimensions	63 x 30 x 24 mm
Ambient temperature (operation)	-20 ... +60 °C
Ambient temperature (storage)	-25 ... 70 °C
Protection type	IP67
Relative humidity (without condensation)	90 % (max.)
Approvals	C€, UL, IO-Link, MTTf (373 years)
For data sheet and additional information, see:	wago.com/765-2704/200-000
Accessories	Item No.
Mounting Clip	765-101/000-000

1-Channel Analog Input; IO-Link Converter; Pt100/Pt1000



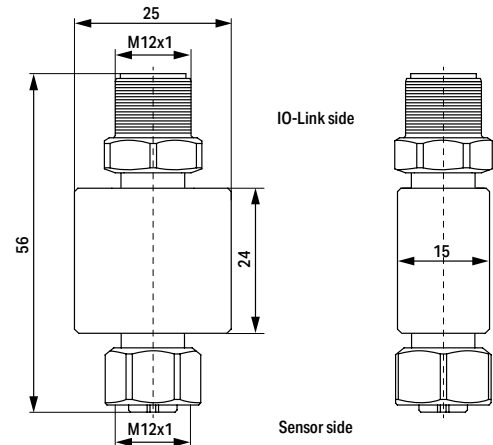
M12-A plug; 4-pole

- 1: 24 VDC: Supply 1L+
- 2: Analog signal for temperature
- 3: 0 V: Supply 1L-
- 4: Switch signal for temperature/IO link



M12-A socket; 4-pole

- 1: RL-
- 2: R-
- 3: R+
- 4: RL+



Available November 2022

Item Description	1-Channel Analog Input; IO-Link Converter; Pt100/Pt1000	
Version	Voltage	Current
Item No.	765-2705/200-000	765-2706/200-000
Order Text	1AI FLD IOL CONV PT100/1000 U	1AI FLD IOL CONV PT100/1000 I

Technical Data		
Supply voltage	24 VDC (18 ... 30 VDC)	
Current consumption	< 50 mA	
Inputs		
Number of analog inputs	1	
Connection technology	M12-A socket; 4-pole	
Signal type (resistors)	Pt100, Pt1000	
Measurement ranges	-100 ... 300 °C; -148 ... 572 °F	
Outputs		
Number of outputs	2	
Connection technology	M12-A socket; 4-pole	
Output signal	Analog signal; IO-link	
Signal type	0 ... 10 V	4 ... 20 mA
Load impedance (max.)	300 Ω	
Accuracy (analog output)	± 0.1 K + (± .1 % MS)	
Accuracy (IO-Link)	± 0.1 K	
IO-Link		
Communication interface	IO-Link Class	
Transmission type	COM2 (38.4 kBaud)	
IO-Link revision	1.1	
Process data	1 x 16-bit IN (analog)	
Process cycle time (min.)	3.2 ms	
Parameters via IO-Link	Measurement range, calibration, limit values, simulation, etc.	
Indicators	Power: 1 x green LED	
Length of connection cables	100 m (sensor side); 20 m (IO-Link side)	
Dimensions	56 x 25 x 15 mm	
Ambient temperature (operation)	-25 ... 100 °C	
Ambient temperature (storage)	-40 ... 100 °C	
Protection type	IP68; IP69K	
Relative humidity (without condensation)	90 % (max.)	
Approvals	CE, UL*, IO-Link; *pending	
For data sheet and additional information, see:	wago.com/765-2705/200-000	wago.com/765-2706/200-000
Accessories	Item No.	Item No.
Mounting Clip	765-102/000-000	765-102/000-000

Mounting Clip

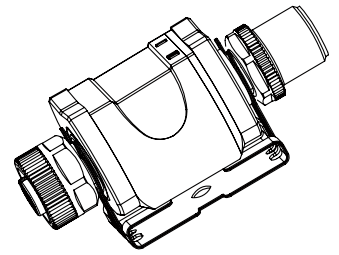
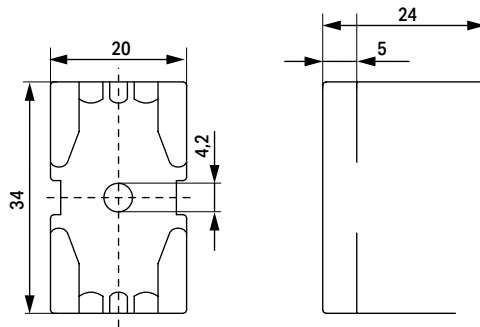


Figure: Mounting Clip (765-101/000-000)

Item Description	Mounting Clip
Version	for 765-2701/200-000, 765-2702/200-000, 765-2703/200-000 and 765-2704/200-000 Converters
Item No.	765-101/000-000
Technical Data	
Weight	6.8 g
Dimensions	34 x 20 x 24 mm
Material	Copper beryllium 2.1247 (CuBe2)

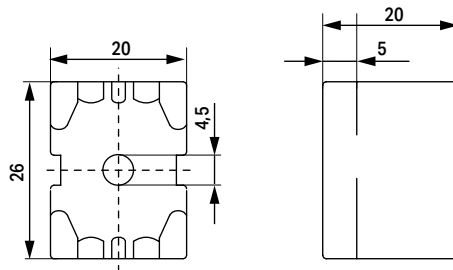
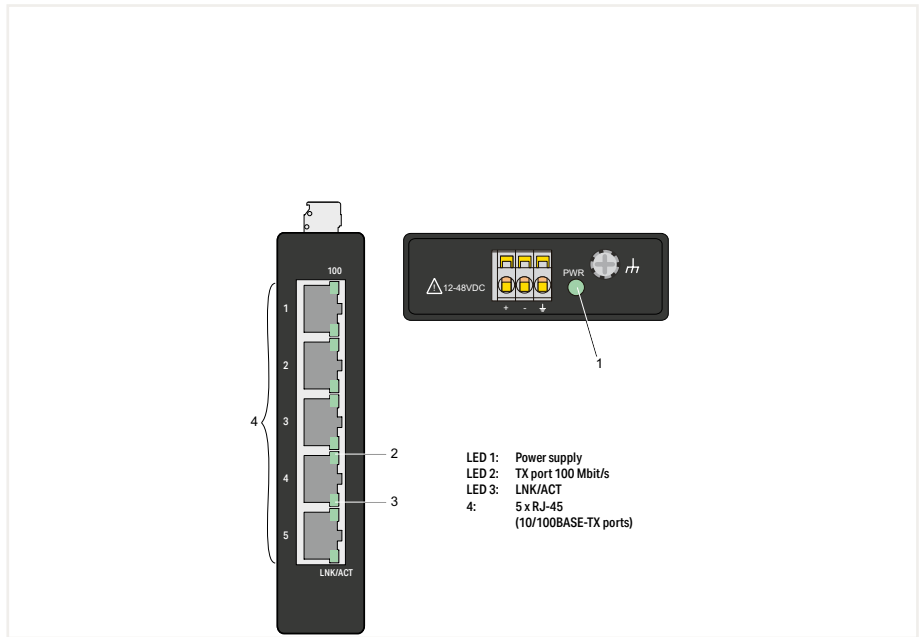


Figure: Mounting Clip (765-102/000-000)

Item Description	Mounting Clip
Version	for 765-2705/200-000 and 765-2706/200-000 Converters
Item No.	765-102/000-000
Technical Data	
Weight	6.8 g
Dimensions	26 x 20 x 20 mm
Material	Copper beryllium 2.1247 (CuBe2)

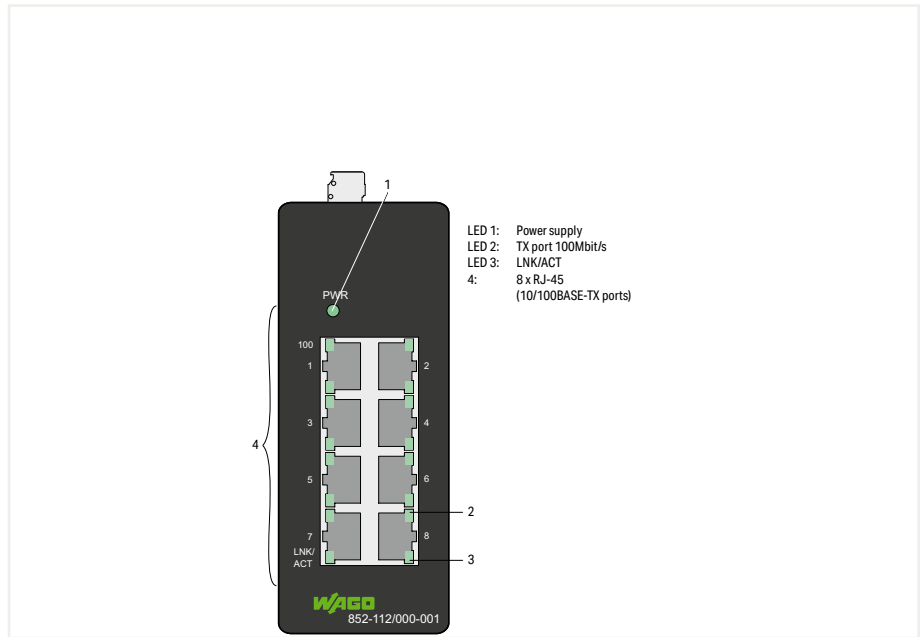
ECO Unmanaged ▶ 5 ports 100BASE-TX



Item no.	852-111/000-001
Order text	Industrial-Eco-Switch; 5Port

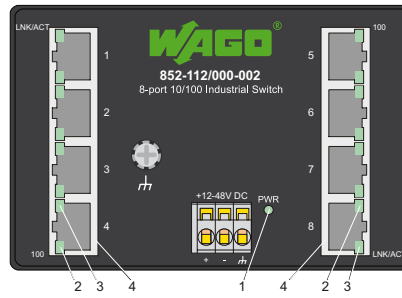
Technical data	
Switching mode	Store-and-forward; non-blocking
Number of copper ports	5 x 100BASE-TX (RJ-45)
Communication standards	IEEE 802.3 10BASE-T; IEEE 802.3u 100BASE-TX; IEEE 802.3x Flow Control; IEEE 802.1p Prioritization
MAC table (size)	2000 addresses
Topology	Star
Supply voltage	12 ... 48 VDC
Power consumption (max.)	2 W
Connection technology: communication/fieldbus	Copper cable: 5 x RJ-45
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	(23.4 x 109.2 x 73.8) mm
For data sheet and additional information, see:	wago.com/852-111/000-001

ECO Unmanaged ▶ 8 ports 100BASE-TX



Item no.	852-112/000-001
Order text	Industrial-Eco-Switch; 8Port
Technical data	
Switching mode	Store-and-forward; non-blocking
Number of copper ports	8 x 100BASE-TX (RJ-45)
Communication standards	IEEE 802.3 10BASE-T; IEEE 802.3u 100BASE-TX; IEEE 802.3x Flow Control; IEEE 802.1p Prioritization
Topology	Star
Supply voltage	12 ... 48 VDC
Power consumption (max.)	2 W
Connection technology: communication/fieldbus	Copper cable: 8 x RJ-45
Ambient temperature (operation)	-40 ... +70 °C
Approvals	CE; OrdLoc
For data sheet and additional information, see:	wago.com/852-112/000-001

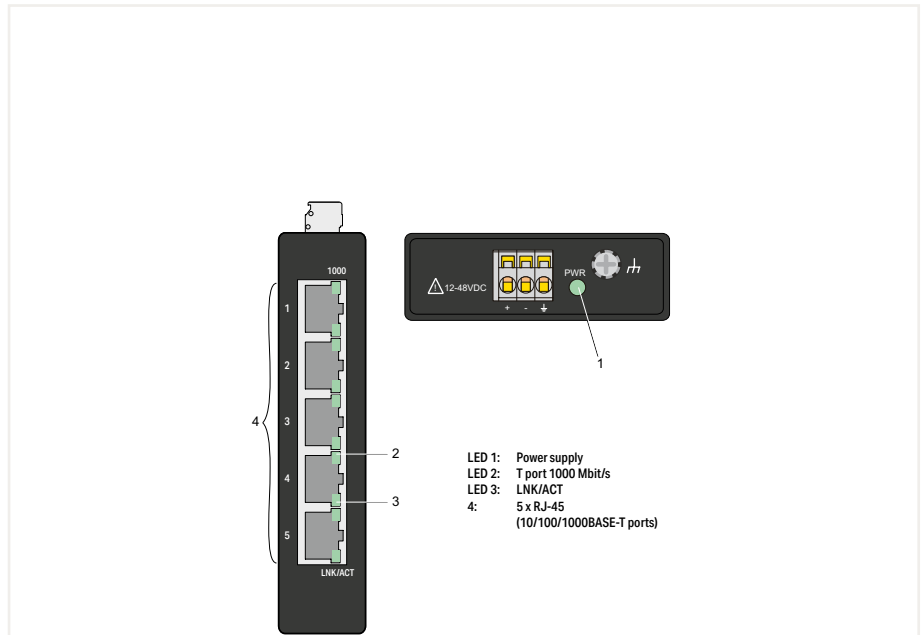
ECO Unmanaged ▶ 8 ports 100BASE-TX



- LED 1: Power supply
- LED 2: TX port 100 Mbit/s
- LED 3: LNK/ACT
- 4: 8 x RJ-45 (10/100BASE-TX ports)

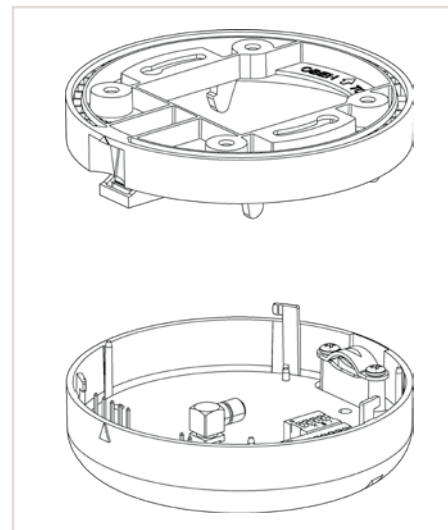
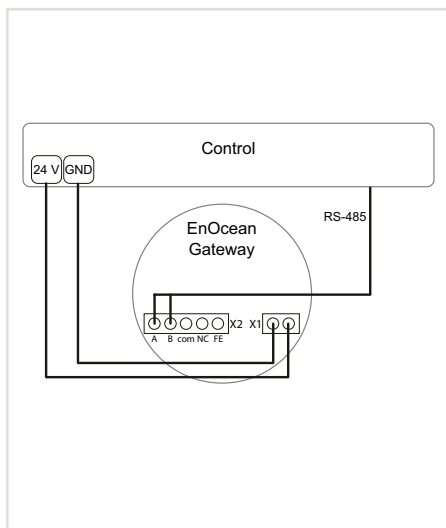
Item no.	852-112/000-002
Order text	Industrial-Eco-Switch; 8Port
Technical data	
Switching mode	Store-and-forward; non-blocking
Number of copper ports	8 x 100BASE-TX (RJ-45)
Communication standards	IEEE 802.3 10BASE-T; IEEE 802.3u 100BASE-TX; IEEE 802.3x Flow Control; IEEE 802.1p Prioritization
MAC table (size)	8000 addresses
Topology	Star
Supply voltage	12 ... 48 VDC
Power consumption (max.)	4 W
Connection technology: communication/fieldbus	Copper cable: 8 x RJ-45
Ambient temperature (operation)	-40 ... +70 °C
Approvals	CE, OrdLoc
For data sheet and additional information, see:	wago.com/852-112/000-002

ECO Unmanaged ▶ 5 ports 1000BASE-T



Item no.	852-1111/000-001
Order text	Industrial-Eco-Switch; 5-Port Gb
Technical data	
Switching mode	Store-and-forward; non-blocking
Number of copper ports	5 x 1000BASE-T or 100BASE-TX (RJ-45)
Communication standards	IEEE 802.3 10BASE-T; IEEE 802.3u 100BASE-TX; IEEE 802.3ab 1000BASE-T; IEEE 802.3x Flow Control; IEEE 802.1p Prioritization
MAC table (size)	2000 addresses
Topology	Star
Supply voltage	12 ... 48 V
Power consumption (max.)	4 W
Connection technology: communication/fieldbus	Copper cable: 5 x RJ-45
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	(23.4 x 109.2 x 73.8) mm
Approvals	CE; OrdLoc
For data sheet and additional information, see:	wago.com/852-1111/000-001

EnOcean® RS-485 Gateway; 868 MHz



Item Description

Item No.

Technical Data

Wireless technology	EnOcean®
Frequency band	868 MHz
Transmission range	Approx. 30 m within buildings; >100 m in open space
Antenna	Internal (external antenna optional via SMA socket)
Interface	RS-485
Protocol	ESP3, Modbus®
Transmission rate	9600 ... 115200 Baud
Data width	50 bytes
Cable length	100 m (max.)
Power supply	24 VDC (-25 ... +30 %)
Input current	2 A (max.)
Connection technology	RS-485 connection: 5-pole 2-conductor compact PCB connectors with PUSH WIRE® (252-155 is included) Supply connection: 2-pole 2-conductor compact PCB connectors with PUSH WIRE® (252-152 is included) Antenna: SMA socket for external antenna
Conductor cross-section	Solid: 0.4 ... 0.8 mm ² / 26 ... 20 AWG
Strip length	6 ... 7 mm
Dimensions (mm) Diameter x Height	95 x 36
Weight	103 g
Protection type	IP30 (front side)
Surrounding air temperature (operation)	0 ... +55 °C
Surrounding air temperature (storage)	-20 ... +85 °C
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3 + A1
Approvals	CE
Data sheet and additional information, see:	wago.com/750-940

EnOcean® RS-485 Gateway; 868 MHz

750-940

The EnOcean® RS-485 Gateway integrates maintenance-free, battery-free and wireless sensors/actuators based on EnOcean® wireless technology (ISO/IEC 14543-3-1x) into intelligent control systems such as the WAGO I/O System.

This gateway communicates with the remote station via RS-485 interface and ESP3 telegrams (EnOcean®) or via Modbus® protocol.








It may be mounted directly to the ceiling or wall. The device can also be mounted on a DIN-rail via an integrated adapter.

The gateway has an internal antenna and also has a connector for an optional external antenna.



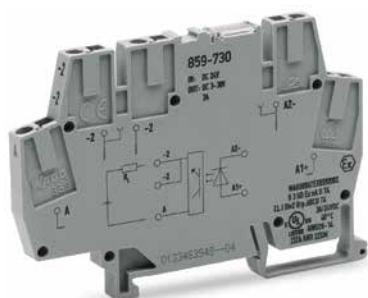
WAGO Electronic Interface

WAGO Electronic Interface

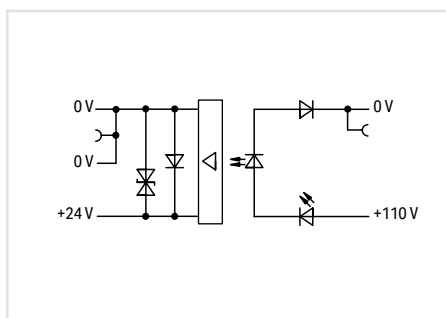
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	Optocoupler module; Output voltage range: 3 ... 30 V; Limiting continuous current: 0.5 A 56
	Energy meter (MID); Shunt and CT (up to 1000 A); 1000 V; DC; Modbus® & M-Bus; S0 interface; 4PU-DC-MOD 58
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Products highlighted in RED are new items for Autumn 2022

Optocoupler module 859 Series

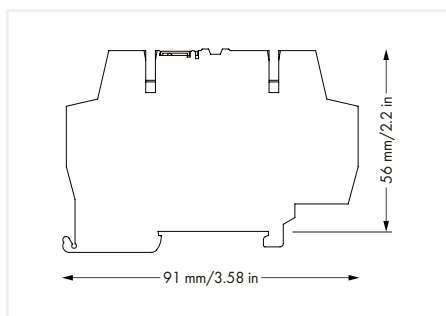


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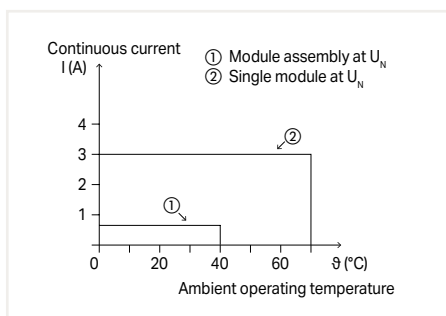


Optocoupler module; Output voltage range: 3 ... 30 V;
Limiting continuous current: 0.5 A; 1 changeover contact;
Red status indicator; Module width: 6 mm

	Item No.	PU
	859-731	1



Note:
Optocouplers and solid state relays are designed for use in signal processing networks, which are not supplied by the low-voltage power supply networks.



Control circuit	
Nominal input voltage U_N	110 VDC
Input voltage range (low level)	0 ... 60 VDC
Input voltage range (high level)	100 ... 120 VDC
Nominal input current at U_N	3.8 mA

Load circuit	
Circuit type	2-wire connection
Limiting continuous current	3 A
Peak output current	25 A
Nominal output voltage	24 VDC
Output voltage range	3 ... 30 VDC
Voltage drop at output (max.)	≤ 0.4 VDC
Turn-on time	≤ 500 μ s
Turn-off time	≤ 6 ms
Switching frequency	≤ 70 Hz

Signaling	
Status indicator	Red LED

Safety and protection	
Rated voltage	150 V
Overvoltage category	II
Pollution degree	2
Type of circuits	Mains circuits
Dielectric strength (control/load circuit) (AC, 1 min)	3 kV _{eff}
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)

Connection data	
Connection technology	CAGE CLAMP®
Solid conductor	0.2 ... 2.5 mm ² / 24 ... 14 AWG
Fine-stranded conductor	0.2 ... 2.5 mm ² / 24 ... 14 AWG
Fine-stranded conductor; with insulated ferrule	0.2 ... 1.5 mm ² / 24 ... 14 AWG
Fine-stranded conductor; without insulated ferrule	0.2 ... 1.5 mm ² / 24 ... 14 AWG
Strip length	5 ... 6 mm / 0.2 ... 0.24 inch

Physical data	
Width	6 mm / 0.236 inch
Height	91 mm / 3.583 inch
Depth from upper-edge of DIN-rail	56 mm / 2.205 inch

Mechanical data	
Mounting type	DIN-35 rail

Material data	
Color	grey
Weight	15,4 g

Environmental requirements	
Ambient temperature (operation at U_N)	-25 ... +70 °C
Ambient temperature UL (operation at U_N)	-25 ... +30 °C
Surrounding air temperature (storage)	-40 ... +70 °C
Processing temperature	-25 ... +50 °C
Relative humidity	5 ... 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

Standards and specifications	
Standards/Specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; UL 508

Energy meter (MID); Shunt and CT (up to 1000 A); 1000 V; DC; Modbus® & M-Bus; S0 interface; 4PU-DC-MOD

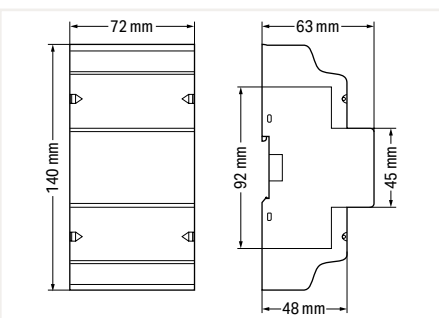
879 Series



9	A		1000 VDC IN	Shunt+
8	B		75 mVDC IN	Shunt-
7	GND			
5	+		4 VDC IN	CT+
4	.			CT-
L	230 V~		1000 VDC IN	Un+
N			Un-	

Energy meter (MID); Shunt and CT (up to 1000 A); 1000 V; DC; Modbus® & M-Bus; S0 interface; 4PU-DC-MOD

Item No.	PU
879-4000	1



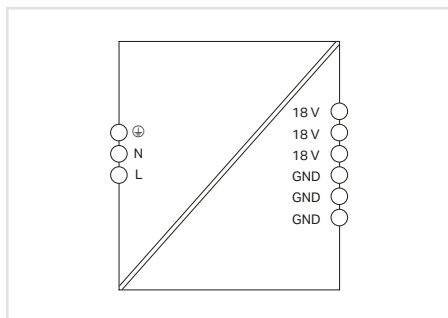
Short description:

- Comprehensive energy measurement is necessary for optimizing energy consumption. WAGO's portfolio now has new energy meters that offer numerous benefits. They use the push-in connection technology with a lever, making them connect quickly and easily. The devices have a width of just 72 mm for direct measurement. These slim profiles save a tremendous amount of control cabinet space. 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. And the user can conveniently scan all of these energy characteristics at a glance on a large, illuminated display.
- Features:
- Push-in CAGE CLAMP® and lever save time at every stage
- Real space savings: 72 mm wide (4PU)
- Measurement of supply and purchase
- Energy measurement in four tariffs
- The communications pro: M-Bus/Modbus® interface and two S0 pulse outputs
- Full transparency at a glance: display energy quality characteristics on an illuminated full-format display
- Intuitive configuration: touch-sensitive controls and configuration app via *Bluetooth*®

Configuration	
Configuration options	Touch-sensitive controls; Configuration app via <i>Bluetooth</i> ®
Input	
Input signal type	Voltage; Current
Network configuration	DC
Nominal input voltage $U_{i, nom}$	0 ... 1000 VDC
Input voltage range	±20 %
Reference current I_{ref}	5 A
Shunt (secondary)	0 ... 75 mVDC
Current transformer (secondary)	0 ... 4 VDC
Current (primary)	50 ... 500 (10000) ADC
Communication	
Communication	Modbus®; M-Bus; <i>Bluetooth</i> ®
Interface	RS-485 (2-wire); 2x S0 interfaces (configurable)
Indicators	LCD with backlight
Signal processing	
Measured variables (calculated)	Active and reactive energy in supply and reference direction
Measurement type (load profile)	No
Measurement Error	
Accuracy class	Class B (= 1 % error); Active energy per EN 50470-3
Supply	
Power supply type	Via 230 VAC input
Power consumption P_{max} (phase; active power)	2 W
Power consumption P_{max} (phase; apparent power)	10 VA
Safety and Protection	
Dielectric strength	4 kV; 1 min
Impulse withstand voltage (1.2/50 µs)	6 kV
Pollution degree	2
Protection type	IP51 / IP20
Note on protection type	IP51 (front side); IP20 (connection)
Protection class	II
Connection Data	
Connection type 1	Voltage/current
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2616 Series
Actuation type	Lever
Solid conductor	0.75 ... 16 mm² / 18 ... 4 AWG
Fine-stranded conductor	0.75 ... 25 mm² / 18 ... 4 AWG
Fine-stranded conductor; with insulated ferrule	0.75 ... 16 mm²
Fine-stranded conductor; with uninsulated ferrule	0.75 ... 16 mm²
Strip length	18 ... 20 mm / 0.71 ... 0.79 inches
Connection type 2	Communication/rate control input
Connection technology 2	Push-in CAGE CLAMP®
WAGO connector 2	WAGO 2604 Series
Actuation type 2	Lever
Solid conductor 2	0.2 ... 4 mm² / 24 ... 12 AWG
Fine-stranded conductor 2	0.2 ... 4 mm² / 24 ... 12 AWG
Fine-stranded conductor; with insulated ferrule 2	0.25 ... 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule 2	0.25 ... 2.5 mm²
Strip length 2	9 ... 11 mm / 0.35 ... 0.43 inches
Physical Data	
Width	72 mm / 2.835 inches
Height	140 mm / 5.512 inches
Depth	63 mm / 2.48 inches
Note (dimensions)	Height without cover: 92 mm

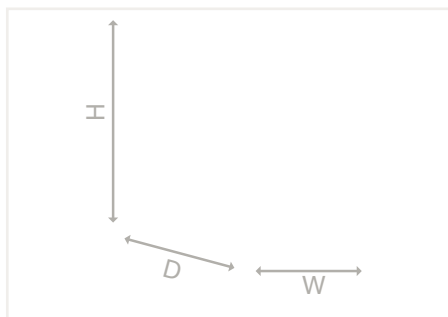
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Housing material	PC 940A
Weight	280 g
Environmental Requirements	
Ambient temperature (operation)	-40 ... +70 °C
Relative humidity	≤ 75 % (during storage ≤ 95 %)
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 50470-1/3; MID-compliant

Power supply; Compact; 1-phase; 18 VDC / 1.25 A 787 Series



Power supply; Compact; 1-phase; 18 VDC output voltage; 1.25 A output current

Item No.	PU
787-2857	1

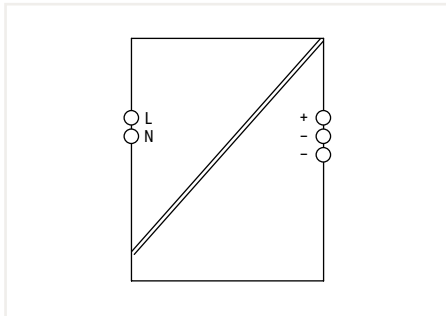


Features:

- Stepped profile for installation in standard distribution boards
- Connection technology with Push-in CAGE CLAMP®
- Parallel operation/series operation
- Electrically isolated output voltage (SELV) per EN/UL 61010-1 or EN/UL 61010-2-201

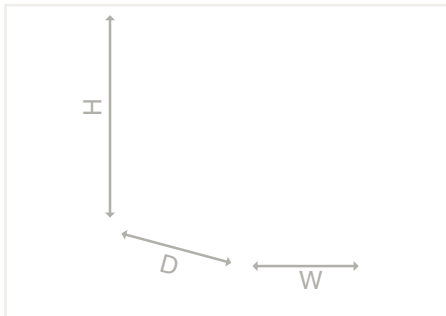
Input	
Nominal input voltage $U_{i, \text{nom}}$	1 x 100 ... 240 VAC
Input voltage range	100 ... 264 VAC
Nominal mains frequency range	47 ... 63 Hz
Input current I_i	≤ 0.4 A (110 VAC); ≤ 0.2 A (240 VAC)
Inrush current	≤ 24 A (NTC)
Mains failure hold-up time	≥ 95 ms (230 VAC)
Output	
Nominal output voltage $U_{o, \text{nom}}$ /Control deviation	18 VDC (SELV) / ≤ 2 %
Nominal output current $I_{o, \text{nom}}$	1.25 A (18 VDC)
Nominal output power	22 W
Residual ripple	≤ 60 mV (peak-to-peak)
Overload behavior	Hiccup
Signaling and communication	
Signaling	1 x Status indication LED (green)
Operation status indicator	Green LED (U_o)
Efficiency/power losses	
Power loss P_i	≤ 0.5 W (230 VAC; No load); ≤ 4 W (230 VAC; Nominal load)
Power loss (max.) $P_{i(\text{max})}$	5 W (110 VAC / 24 VDC; 1,35 A)
Efficiency (typ.)	88 %
Circuit protection	
Internal fuse	T 1.25 A / AC 250 V
Recommended backup fusing	16 A (for USA/Canada: 15 A)
Safety and protection/Environmental requirements	
Isolation voltage (pri.-sec./pri.-PE/sec.-PE)	2.47 kVAC / 3.92 kVAC / 0,5 kVDC
Protection class/ Protection type	I / IP20 (per EN 60529)
Oversoltage category	III (≤ 2000 m a. s.I.); II (> 2000 m a. s.I.)
Short-circuit-protected	Yes
Parallel operation/series operation	Yes/yes
MTBF	$> 2,500,000$ h (per IEC 61709 at $+40$ °C)
Ambient air temperature (operation)	-25 ... $+70$ °C (nominal mounting position; -20 ... $+55$ °C in any mounting position)
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	-1.7 %/K (> 55 °C)
Pollution degree	2
Connection data	
Connection technology	Push-in CAGE CLAMP®
Input/signaling (solid/fine-stranded/AWG)	0.25 ... 2.5 mm ² / 0.25 ... 2.5 mm ² / 22 ... 12 AWG
Output (solid/fine-stranded/AWG)	0.2 ... 1.5 mm ² / 0.2 ... 1.5 mm ² / 24 ... 16 AWG
Physical data/ Mechanical data/ Material data	
Width x Height x Depth (mm)	36 x 90 x 62; depth from upper edge of DIN-rail: 55
Mounting type	DIN-35 rail
Weight	120 g
Standards and specifications	
Standards/Specifications	EN 61204-3; EN 61010-1; EN 61010-2-201; cULus 61010-1; cULus 61010-2-201, DNV

Power supply; Eco 2; 1-phase; 24 VDC output voltage; 1.25 A output current; DC OK LED 2687 Series



Power supply; Eco 2; 1-phase; 24 VDC output voltage;
1.25 A output current; DC-OK LED

	Item No.	PU
	2687-2142	1

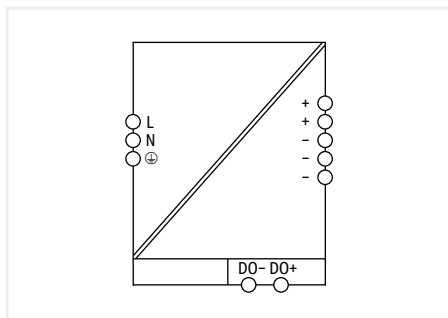


Features:

- Optical status indication
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted
- Connection technology with push-in termination and tool-free lever operation
- Electrically isolated output voltage (SELV/PELV) per EN 61010/UL 61010
- Marker slot (2789-1223, not included) for WAGO marking cards (WMB) and WAGO marking strips

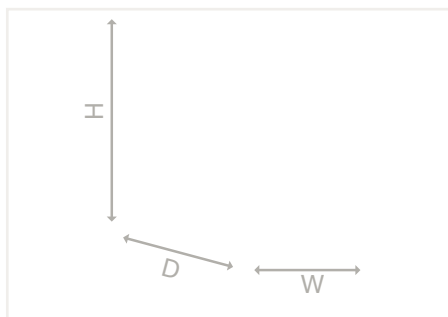
Input	
Power factor correction (PFC)	passive
Nominal input voltage $U_{i, nom}$	1 x 100 ... 240 VAC
Input voltage range	1 x 90 ... 264 VAC
Nominal mains frequency range	50 ... 60 Hz
Input current I_i	≤ 0.3 A (230 VAC; nominal load); ≤ 0.6 A (100 VAC; nominal load)
Inrush current	≤ 10 A (after 1 ms)
Mains failure hold-up time	≥ 120 ms (230 VAC); ≥ 15 ms (110 VAC)
Phases	1
Output	
Nominal output power	30 W
Overload behavior	Constant power up to 125 %; shutdown and automatic restart in the event of a short circuit
Nominal output voltage $U_{o, nom}$ / Residual ripple	24 VDC (SELV) / ≤ 1 %
Output voltage range	22 ... 29 VDC (adjustable)
Default setting	24 VDC
Nominal output current $I_{o, nom}$	1.25 A (24 VDC)
Residual ripple	≤ 30 mV (Peak-to-peak, at 230 VAC)
Signaling and Communication	
Signaling	1 x LED DC OK (green)
Efficiency/Power Losses	
Power loss P_i	≤ 0.2 W (no load); ≤ 4.3 W (Nominal load)
Efficiency (typ.)	88 %
Circuit Protection	
Internal fuse	T 1 A / 250 VAC
Recommended backup fusing	16 A (for USA/Canada: 15 A)
Safety and Protection	
Isolation voltage (pri.-sec., AC)	3,510 V
Overvoltage category	III (≤ 2000 m a. s.l.); II (> 2000 m a. s.l.)
Pollution degree	2
Short-circuit-protected	Yes
Open-circuit-proof	Yes
Parallel operation/ Series operation	Yes / yes
MTBF	$> 1,000,000$ h (per IEC 61709)
Protection class/ Protection type	II / IP20
Note on protection type	per EN 60529
Resistance to reverse feed	≤ 35 VDC
Connection Data	
Connection type 1	Input/output
Connection technology	Push-in CAGE CLAMP®
Solid conductor/ Fine-stranded conductor	0,2 ... 4 mm ² / 24 ... 12 AWG
Physical Data	
Width	25 mm / 0.984 inch
Height	100 mm / 3.937 inch
Depth from upper-edge of DIN-rail	100 mm / 3.937 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Fire load	0.000 MJ
Weight	160 g
Environmental Requirements	
Derating	See type label/manual
Climatic category	3K3 (per EN 60721)
Operating altitude (max.)	5000 m
Ambient temperature (operation)	-25 ... +70 °C (Device starts at -40 °C (type-tested))
Ambient air temperature (storage)	-40 ... +85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 61010-1; EN 61010-2-201; EN 61204-3; UL 61010-1; UL 61010-2-201

Power supply; Eco 2; 1-phase; 24 VDC output voltage; 5 A output current; DC OK contact 2687 Series



Power supply; Eco 2; 1-phase; 24 VDC output voltage;
5 A output current; DC OK contact

Item No.	PU
2687-2144	1



Features:

- Optical status indication
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted
- Connection technology with push-in termination and tool-free lever operation
- Electrically isolated output voltage (SELV/PELV) per EN 61010/UL 61010
- Marker slot (2789-1223, not included) for WAGO marking cards (WMB) and WAGO marking strips

Input	
Power factor correction (PFC)	passive
Nominal input voltage $U_{i, nom}$	1 x 100 ... 240 VAC
Input voltage range	1 x 90 ... 264 VAC
Nominal mains frequency range	50 ... 60 Hz
Input current I_i	≤ 0.8 A (230 VAC; nominal load); ≤ 1.5 A (100 VAC; nominal load)
Inrush current	≤ 20 A (after 1 ms)
Mains failure hold-up time	≥ 20 ms (230 VAC)
Phases	1

Output	
Nominal output power	120 W
Overload behavior	Constant power up to 105 %; shutdown and automatic restart in the event of a short circuit
Nominal output voltage $U_{o, nom}$ / Residual ripple	24 VDC (SELV) / ≤ 1 %
Output voltage range	23 ... 28 VDC (adjustable)
Default setting	24 VDC
Nominal output current $I_{o, nom}$	5 A (24 VDC)
Residual ripple	≤ 75 mV (peak-to-peak)

Signaling and Communication	
Signaling	Optical status indication (overload) Optical status indication (DC OK) Digital signal output (DO)

Efficiency/Power Losses	
Power loss P_i	≤ 3 W (no load); ≤ 12 W (Nominal load)
Efficiency (typ.)	90 %

Circuit Protection	
Internal fuse	T 3.15 A / 250 VAC
Recommended backup fusing	16 A (for USA/Canada: 15 A)

Safety and Protection	
Isolation voltage (pri.-sec., AC/pri.-PE, AC/sec.-PE/ sec.-signal)	3,510 V / 2,200 V / 0.5 kVDC / 0.5 kVDC
Overvoltage category	III (≤ 2000 m a. s.I.); II (> 2000 m a. s.I.)
Pollution degree	2
Short-circuit-protected	Yes
Open-circuit-proof	Yes
Parallel operation/ Series operation	Yes / yes
MTBF	$> 1,000,000$ h (per IEC 61709)
Protection class/ Protection type	I / IP20
Note on protection type	per EN 60529
Resistance to reverse feed	≤ 35 VDC

Connection data	
Connection type 1	Input/output/signaling
Connection technology	Push-in CAGE CLAMP®
Solid conductor/ Fine-stranded conductor	0,2 ... 4 mm ² / 24 ... 12 AWG

Physical data	
Width	38 mm / 1.496 inch
Height	100 mm / 3.937 inch
Depth from upper-edge of DIN-rail	130 mm / 5.118 inch

Mounting type	
Material Data	DIN-35 rail

Material Data	
Fire load	0.000 MJ
Weight	650 g

Environmental Requirements	
Derating	See type label/manual
Climatic category	3K3 (per EN 60721)
Operating altitude (max.)	5000 m
Ambient temperature (operation)	-25 ... +70 °C (Device starts at -40 °C (type-tested))
Ambient air temperature (storage)	-40 ... +85 °C
Relative humidity	5 ... 96 % (no condensation permissible)

Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 61010-1; EN 61010-2-201; EN 61204-3; UL 61010-1; UL 61010-2-201

Communication modul; EtherNet/IP 2789 Series



Communication modul; EtherNet/IP; communication capability

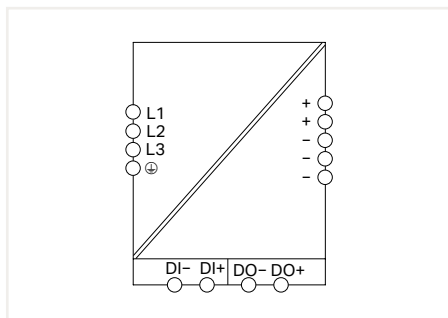
Item No.	PU
2789-9023	1

Features:

- This communication module snaps onto the communication interface of Pro 2 Power Supplies
- Ethernet/IP + MQTT
- Suitable for monitoring the subordinate power supply
- Function blocks for standard control systems available upon request
- Integrated ETHERNET switch for convenient wiring
- Marker slot for WAGO marking cards (WMB) and WAGO marking strips

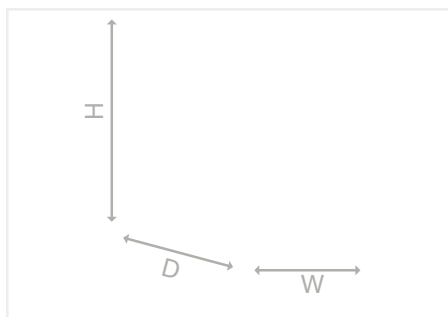
Input	
Nominal input voltage $U_{i\text{nom}}$	5 VDC (SELV)
Nominal input current at U_N	≤ 250 mA
Signaling and Communication	
Signaling	1 x ERR LED (red); 1 x COM OK LED (green); 1 x LED LNK/ACTx (green); 1 x LED SPEEDx (orange)
Communication	Ethernet/IP
ETHERNET protocols	HTTP(S); BootP; DHCP; SNTP; MQTT
Configuration options	Web-Based Management
Visualization	Web-Visu
Transmission medium (communication/fieldbus)	ETHERNET: Twisted pair S-UTP; 100 Ω; Cat. 5
Baud rate	100 MBd (ETHERNET: 10/100 Mbit/s)
Safety and Protection	
Test voltage (fieldbus)	0.775 kVAC; 50 Hz; 1 min
Insulation type	Functional insulation
Protection class/Protection type	III / IP20
Note on protection type	per EN 60529
Overvoltage category	III
Pollution degree	2
Connection Data	
Connection type 1	Ethernet/IP
Connector	2 x RJ-45
Cable length (max.)	100 m
Physical Data	
Width	35 mm / 1.378 inch
Height	80 mm / 3.15 inch
Depth	22 mm / 0.866 inch
Note (dimensions)	Depth in mounted state
Mechanical Data	
Mounting type	Snaps onto a Pro 2 Power Supply's communication interface (X4)
Material Data	
Weight	45 g
Environmental Requirements	
Ambient temperature (operation)	-40 ... 55 °C
Ambient air temperature (storage)	-40 ... 85 °C
Relative humidity	5 ... 95 % (no condensation permissible)
Operating altitude (max.)	5000 m
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 61010-1; EN 61010-2-201; EN 61204-3; UL 61010-1; UL 61010-2-201

Power supply; Pro 2; 3-phase; 24 VDC / 5 A 2787 Series



Power supply; Pro 2; 3-phase; 24 VDC output voltage; 5 A output current; TopBoost + PowerBoost; communication capability

	Item No.	PU
	2787-2344	1
	2787-2344/000-030	1
Protection coating	2787-2344/000-070	1



Features:

- Power supply with TopBoost, PowerBoost and configurable overload behavior
- Configurable digital signal input and output, optical status indication, function keys
- Communication interface for configuration and monitoring
- Optional connection to IO-Link
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted
- Pluggable connection technology
- Electrically isolated output voltage (SELV/PELV) per EN 61010-2-201/UL 61010-2-201
- Marker slot for WAGO marking cards (WMB) and WAGO marking strips

Input

Phases	3 (2 at $U_i \geq 400$ VAC)
Nominal input voltage $U_{i,nom}$	3 x AC 400 ... 500 V (connection without neutral conductor)
Input voltage range	3 x AC 340 ... 550 V
Nominal mains frequency range	50 ... 60 Hz; 0 Hz
Input current I_i	$\leq 3 \times 0.4$ A (400 VAC; 24 VDC / 5 ADC)
Inrush current	≤ 15 A (after 1 ms)
Power factor correction (PFC)	Active
Mains failure hold-up time	≥ 20 ms (3 x 400 VAC)

Output

Nominal output voltage $U_{o,nom}$ /Control deviation	24 VDC (SELV)/ $\leq 1\%$
Output voltage range	24 ... 28 VDC (adjustable)
Nominal output current $I_{o,nom}$	5 A (24 VDC)
Nominal output power	240 W
Residual ripple	≤ 70 mV (peak-to-peak)
Overload behavior	TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set)

Signaling and communication

Signaling	Optical status indication (DC OK; load; warning and error states); Digital signal input and output (DI/DO)
Communication	Communication interface, can be used with WAGO USB Communication Cable (750-923) or IO-Link Communication Module (2789-9080), Modbus RTU Communication Module (2789-9015) or Modbus TCP Communication Module (2789-9052)

Efficiency/power losses

Power loss P_l	≤ 3 W (Standby); ≤ 3 W (No load); ≤ 18 W (400 VAC; Nominal load)
Efficiency (typ.)	93 % (400 VAC; 10 A; 25 °C)

Circuit protection

Required backup fusing	An external DC fuse is required for the DC input voltage.
Recommended backup fusing	3 x 16 A (for USA/Canada: 3 x 15 A)

Safety and protection

Isolation voltage (pri.-sec./pri.-PE/sec.-PE/sec.-signal)	3.51 VAC / 2.2 VAC / 0.5 kVDC / 0.5 kVDC
Protection class/ Protection type	I / IP20 (per EN 60529)
Overtoltage category	III (≤ 2000 m a. s.l.); II (> 2000 m a. s.l.)
Pollution degree	2
Short-circuit-protected	Yes
Parallel operation/series operation	Yes/yes
MTBF	$> 1,000,000$ h (per IEC 61709)
Surrounding air temperature (operation)	-25 ... +70 °C (Device starts at -40 °C (type-tested))
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	See instruction leaflet

Connection data

Connection technology	CAGE CLAMP®/ Push-in CAGE CLAMP®
Input/signaling (solid/fine-stranded/AWG)	0.08 ... 2.5 mm ² / 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Output (solid/fine-stranded/AWG)	0.5 ... 10 mm ² / 0.5 ... 10 mm ² / 20 ... 8 AWG

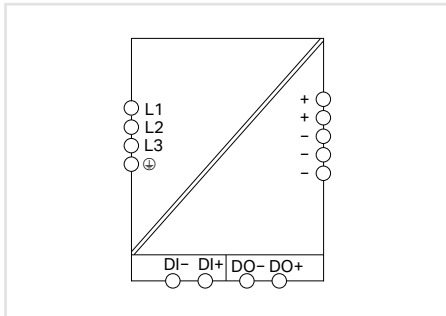
Physical data/ Mechanical data/ Material data

Width x Height x Depth (mm)	50 x 169 x 130 mm; Height with connector; depth from upper edge of DIN-rail
Mounting type	DIN-35 rail
Weight	650 g

Standards and specifications

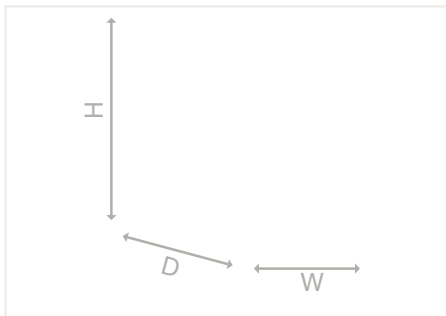
Standards/Specifications	CE; EN 61010-1; EN 61010-2-201; EN 61204-3; UL 61010-1; UL 61010-2-201; DNV GL (only 2787-2344/000-030 und .../000-070)
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Power supply; Pro 2; 3-phase; 24 VDC / 10 A 2787 Series



Power supply; Pro 2; 3-phase; 24 VDC output voltage; 10 A output current; TopBoost + PowerBoost; communication capability

	Item No.	PU
	2787-2346	1
	2787-2346/000-030	1
Protection coating	2787-2346/000-070	1



Features:

- Power supply with TopBoost, PowerBoost and configurable overload behavior
- Configurable digital signal input and output, optical status indication, function keys
- Communication interface for configuration and monitoring
- Optional connection to IO-Link
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted
- Pluggable connection technology
- Electrically isolated output voltage (SELV/PELV) per EN 61010-2-201/UL 61010-2-201
- Marker slot for WAGO marking cards (WMB) and WAGO marking strips

Input

Phases	3 (2 at $U \geq 400$ VAC)
Nominal input voltage $U_{in, nom}$	3 x AC 400 ... 500 V (connection without neutral conductor)
Input voltage range	3 x AC 340 ... 550 V
Nominal mains frequency range	50 ... 60 Hz; 0 Hz
Input current I_i	$\leq 3 \times 0.6$ A (400 VAC; 24 VDC / 10 ADC)
Inrush current	≤ 15 A (after 1 ms)
Power factor correction (PFC)	Active
Mains failure hold-up time	≥ 20 ms (3 x 400 VAC)

Output

Nominal output voltage $U_{o, nom}$ /Control deviation	24 VDC (SELV)/ ≤ 1 %
Output voltage range	24 ... 28 VDC (adjustable)
Nominal output current $I_{o, nom}$	10 A (24 VDC)
Nominal output power	240 W
Residual ripple	≤ 70 mV (peak-to-peak)
Overload behavior	TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set)

Signaling and communication

Signaling	Optical status indication (DC OK; load; warning and error states); Digital signal input and output (DI/DO)
Communication	Communication interface, can be used with WAGO USB Communication Cable (750-923) or IO-Link Communication Module (2789-9080), Modbus RTU Communication Module (2789-9015) or Modbus TCP Communication Module (2789-9052)

Efficiency/power losses

Power loss P_i	≤ 3 W (Standby); ≤ 3 W (No load); ≤ 18 W (400 VAC; Nominal load)
Efficiency (typ.)	93 % (400 VAC; 10 A; 25 °C)

Circuit protection

Internal fuse	3 x T 2.5 A / 500 VAC
Recommended backup fusing	3 x 16 A (for USA/Canada: 3 x 15 A)

Safety and protection

Isolation voltage (pri.-sec./pri.-PE/sec.-PE/sec.-signal)	3.51 VAC / 2.2 VAC / 0.5 kVDC / 0.5 kVDC
Protection class/ Protection type	I / IP20 (per EN 60529)
Oversvoltage category	III (≤ 2000 m a. s.l.); II (> 2000 m a. s.l.)
Pollution degree	2
Short-circuit-protected	Yes
Parallel operation/series operation	Yes/yes
MTBF	$> 1,000,000$ h (per IEC 61709)
Surrounding air temperature (operation)	-25 ... +70 °C (Device starts at -40 °C (type-tested))
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	See instruction leaflet

Connection data

Connection technology	CAGE CLAMP®/ Push-in CAGE CLAMP®
Input/signaling (solid/fine-stranded/AWG)	0.08 ... 2.5 mm ² / 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Output (solid/fine-stranded/AWG)	0.5 ... 10 mm ² / 0.5 ... 10 mm ² / 20 ... 8 AWG

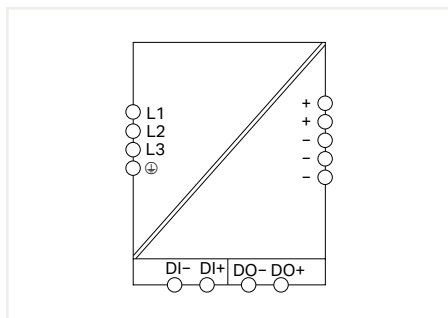
Physical data/ Mechanical data/ Material data

Width x Height x Depth (mm)	50 x 169 x 130 mm; Height with connector; depth from upper edge of DIN-rail
Mounting type	DIN-35 rail
Weight	1000 g

Standards and specifications

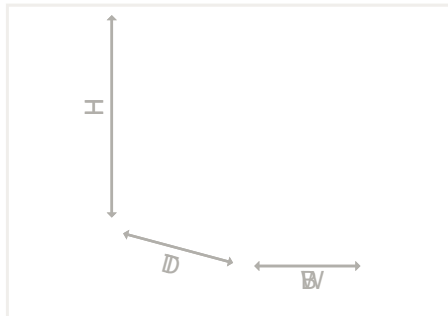
Standards/Specifications	CE; EN 61010-1; EN 61010-2-201; EN 61204-3; UL 61010-1; UL 61010-2-201; DNV GL (only 2787-2346/000-030 und .../000-070)
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Power supply; Pro 2; 3-phase; 24 VDC / 20 A 2787 Series



Power supply; Pro 2; 3-phase; 24 VDC output voltage; 20 A output current; TopBoost + PowerBoost; communication capability

	Item No.	PU
	2787-2347/000-030	1
Protection coating	2787-2347/000-070	1



Features:

- Power supply with TopBoost, PowerBoost and configurable overload behavior
- Configurable digital signal input and output, optical status indication, function keys
- Communication interface for configuration and monitoring
- Optional connection to IO-Link
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted
- Pluggable connection technology
- Electrically isolated output voltage (SELV/PELV) per EN 61010-2-201/UL 61010-2-201
- Marker slot for WAGO marking cards (WMB) and WAGO marking strips

Input

Phases	3 (2 at $U_i \geq 400$ VAC)
Nominal input voltage $U_{i,nom}$	3 x AC 400 ... 500 V (connection without neutral conductor)
Input voltage range	3 x AC 340 ... 550 V
Nominal mains frequency range	50 ... 60 Hz; 0 Hz
Input current I_i	$\leq 3 \times 0.8$ A (400 VAC; 24 VDC / 20 ADC)
Inrush current	≤ 15 A (after 1 ms)
Power factor correction (PFC)	Active
Mains failure hold-up time	≥ 20 ms (3 x 400 VAC)

Output

Nominal output voltage $U_{o,nom}$ /Control deviation	24 VDC (SELV)/ $\leq 1\%$
Output voltage range	24 ... 28 VDC (adjustable)
Nominal output current $I_{o,nom}$	20 A (24 VDC)
Nominal output power	480 W
Residual ripple	≤ 70 mV (peak-to-peak)
Overload behavior	TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set)

Signaling and communication

Signaling	Optical status indication (DC OK; load; warning and error states); Digital signal input and output (DI/DO)
Communication	Communication interface, can be used with WAGO USB Communication Cable (750-923) or IO-Link Communication Module (2789-9080), Modbus RTU Communication Module (2789-9015) or Modbus TCP Communication Module (2789-9052)

Efficiency/power losses

Power loss P_i	≤ 3.6 W (Standby); ≤ 4.4 W (No load); ≤ 21 W (400 VAC; Nominal load)
Efficiency (typ.)	95.9 % (400 VAC; 20 A; 25 °C)

Circuit protection

Internal fuse	3 x T 2.5 A / 500 VAC
Recommended backup fusing	3 x 16 A (for USA/Canada: 3 x 15 A)

Safety and protection

Isolation voltage (pri.-sec./pri.-PE/sec.-PE/sec.-signal)	3.51 VAC / 2.2 VAC / 0.5 kVDC / 0.5 kVDC
Protection class/ Protection type	I / IP20 (per EN 60529)
Oversoltage category	III (≤ 2000 m a. s.l.); II (> 2000 m a. s.l.)
Pollution degree	2
Short-circuit-protected	Yes
Parallel operation/series operation	Yes/yes
MTBF	$> 800,000$ h (per IEC 61709)
Surrounding air temperature (operation)	-25 ... +70 °C (Device starts at -40 °C (type-tested))
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	See instruction leaflet

Connection data

Connection technology	CAGE CLAMP®/ Push-in CAGE CLAMP®
Input/signaling (solid/fine-stranded/AWG)	0.08 ... 2.5 mm ² / 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Output (solid/fine-stranded/AWG)	0.5 ... 10 mm ² / 0.5 ... 10 mm ² / 20 ... 8 AWG

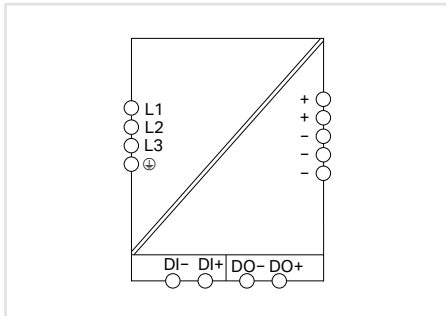
Physical data/ Mechanical data/ Material data

Width x Height x Depth (mm)	70 x 169 x 130 mm; Height with connector; depth from upper edge of DIN-rail
Mounting type	DIN-35 rail
Weight	1400 g

Standards and specifications

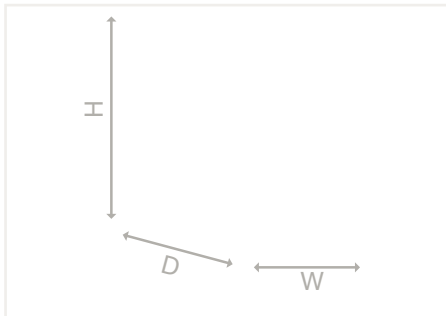
Standards/Specifications	CE; EN 61010-1; EN 61010-2-201; EN 61204-3; UL 61010-1; UL 61010-2-201; DNV GL
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Power supply; Pro 2; 3-phase; 24 VDC / 40 A 2787 Series



Power supply; Pro 2; 3-phase; 24 VDC output voltage;
40 A output current; TopBoost + PowerBoost; commu-
nication capability

	Item No..	PU
	2787-2348/000-030	1
Protection coating	2787-2348/000-070	1



Features:

- Power supply with TopBoost, PowerBoost and configurable overload behavior
- Configurable digital signal input and output, optical status indication, function keys
- Communication interface for configuration and monitoring
- Optional connection to IO-Link
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted
- Pluggable connection technology
- Electrically isolated output voltage (SELV/PELV) per EN 61010-2-201/UL 61010-2-201
- Marker slot for WAGO marking cards (WMB) and WAGO marking strips

Input

Phases	3 (2 at $U \geq 400$ VAC)
Nominal input voltage $U_{in, nom}$	3 x AC 400 ... 500 V (connection without neutral conductor)
Input voltage range	3 x AC 340 ... 550 V
Nominal mains frequency range	50 ... 60 Hz; 0 Hz
Input current I_i	≤ 3 x 1.7 A (400 VAC; 24 VDC / 40 ADC)
Inrush current	≤ 15 A (after 1 ms)
Power factor correction (PFC)	Active
Mains failure hold-up time	≥ 20 ms (3 x 400 VAC)

Output

Nominal output voltage $U_{o, nom}$ /Control deviation	24 VDC (SELV)/ ≤ 1 %
Output voltage range	24 ... 28 VDC (adjustable)
Nominal output current $I_{o, nom}$	40 A (24 VDC)
Nominal output power	960 W
Residual ripple	≤ 70 mV (peak-to-peak)
Overload behavior	TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set)

Signaling and communication

Signaling	Optical status indication (DC OK; load; warning and error states); Digital signal input and output (DI/DO)
Communication	Communication interface, can be used with WAGO USB Communication Cable (750-923) or IO-Link Communication Module (2789-9080), Modbus RTU Communication Module (2789-9015) or Modbus TCP Communication Module (2789-9052)

Efficiency/power losses

Efficiency (typ.)	96.1 % (400 VAC; 40 A; 25 °C)
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Circuit protection

Internal fuse	3 x T 3.2 A / 500 VAC
Recommended backup fusing	3 x 16 A (for USA/Canada: 3 x 15 A)

Safety and protection

Isolation voltage (pri.-sec./pri.-PE/sec.-PE/sec.-signal)	3.51 VAC / 2.2 VAC / 0.5 kVDC / 0.5 kVDC
Protection class/ Protection type	I / IP20 (per EN 60529)
Overvoltage category	III (≤ 2000 m a. s.I.); II (> 2000 m a. s.I.)
Pollution degree	2
Short-circuit-protected	Yes
Parallel operation/series operation	Yes/yes
MTBF	$> 800,000$ h (per IEC 61709)
Surrounding air temperature (operation)	-25 ... +70 °C (Device starts at -40 °C (type-tested))
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	See instruction leaflet

Connection data

Connection technology	CAGE CLAMP®/ Push-in CAGE CLAMP®
Input/signaling (solid/fine-stranded/AWG)	0.08 ... 2.5 mm ² / 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Output (solid/fine-stranded/AWG)	0.5 ... 10 mm ² / 0.5 ... 10 mm ² / 20 ... 8 AWG

Physical data/ Mechanical data/ Material data

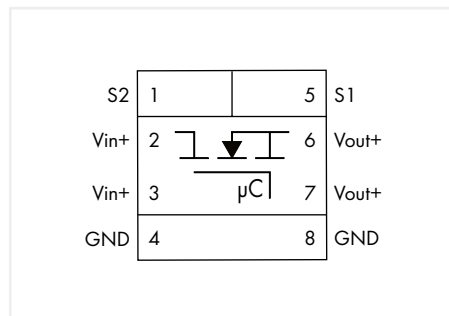
Width x Height x Depth (mm)	120 x 169 x 130 mm; Height with connector; depth from upper edge of DIN-rail
Mounting type	DIN-35 rail
Weight	2000g

Standards and specifications

Standards/Specifications	CE; EN 61010-1; EN 61010-2-201; EN 61204-3; UL 61010-1; UL 61010-2-201; DNV GL
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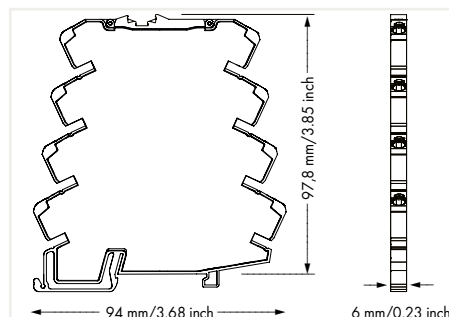
Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 0.5 A; Signal contact

787 Series



Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 0.5 A; Signal contact

Item No.	PU
787-3861/050-000	1



Features:

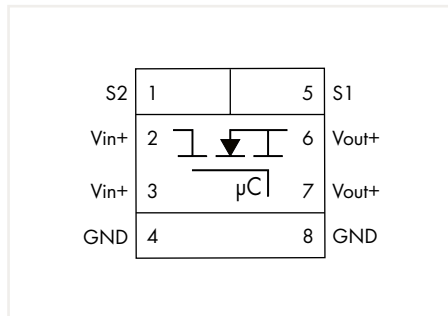
- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 10,000 μF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during inter-connected operation

Note:

- The device is intended to be connected to SELV circuits.
- Please use the appropriate minimum conductor cross-section, depending on the output current: AWG 26 (0.5 A)

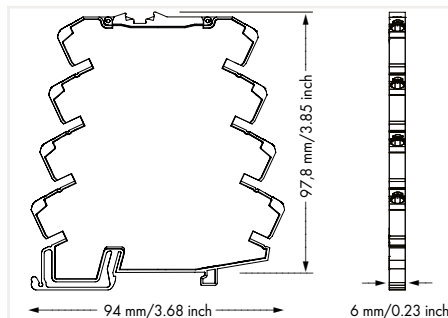
Input	
Nominal input voltage $U_{i, \text{nom}}$	24 VDC
Input voltage range	18 ... 30 VDC (SELV)
Output	
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Active current limitation	no
Nominal output voltage $U_{o, \text{nom}}$	24 VDC
Output voltage range	18 ... 30 VDC (U_o – voltage drop)
Voltage drop	$\leq 40 \text{ mV}$
Nominal output current $I_{o, \text{nom}}$	0.5 A (fixed setting)
Switch-on capacity	< 10000 μF
Signaling and Communication	
Signaling	1 x Status LED (green/yellow/red); 1 x Control input (15 ... 30 VDC (active high); -3 ... 5 VDC (active low); max. 0.015 A); 1 x Signal output (18 ... 30 VDC, max. 0.015 A), default setting: triggered
Remote input	18 ... 30 VDC signal, switches on/off and resets the channel
Operation status indicator	Green LED (channel OK); Red LED (channel turned off)
Efficiency/Power Losses	
Power loss P_i	$\leq 0.4 \text{ W}$ (no load)
Efficiency (typ.)	98 %
Circuit Protection	
Internal fuse	T 4 A
Safety and Protection	
Reverse voltage protection	No
Pollution degree	2
Transient suppression (primary)	Suppressor diode (33 V)
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,000,000 h (per MIL-HDBK-217F2)
Protection class/protection type	III / IP20
Note on protection type	Per EN 60529
Isolation voltage (connectors – housing)	1.5 kVDC
Connection Data	
Number of jumper slots	8
Note (conductor cross-section)	Use the UL-approved minimum conductor cross-section, depending on the output current: 26 ... 14 AWG (0.5 A)
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 857 Series
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.08 ... 2.5 mm ² / 26 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Physical Data	
Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	97.8 mm / 3.85 inch
Depth	94 mm / 3.701 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	53.6 g
Environmental Requirements	
Derating	No derating
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-25 ... +70 °C
Ambient air temperature (storage)	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permitted)
Standards and Specification	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 1310 (NEC Class 2); UL 2367

Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 1 A; Signal contact 787 Series



Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 1 A; Signal contact

Item No.	PU
787-3861/100-000	1



Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 10,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during inter-connected operation

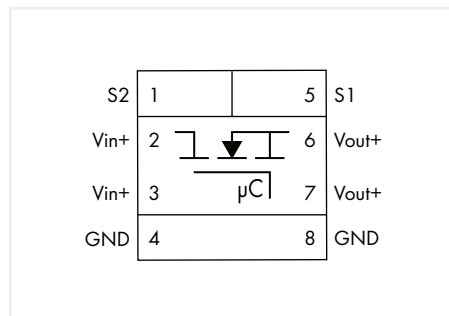
Note:

- The device is intended to be connected to SELV circuits.
- Please use the appropriate minimum conductor cross-section, depending on the output current: AWG 26 (0.5 A); AWG 24 (1 A)

Input	
Nominal input voltage $U_{i, nom}$	24 VDC
Input voltage range	18 ... 30 VDC (SELV)
Output	
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Active current limitation	no
Nominal output voltage $U_{o, nom}$	24 VDC
Output voltage range	18 ... 30 VDC (U_o – voltage drop)
Voltage drop	≤ 80 mV
Nominal output current $I_{o, nom}$	1 A (fixed setting)
Switch-on capacity	< 10,000 µF
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red); 1 x Control input (15 ... 30 VDC (active high); -3 ... 5 VDC (active low); max. 0.015 A); 1 x Signal output (18 ... 30 VDC, max. 0.015 A), default setting: triggered
Remote input	18 ... 30 VDC signal, switches on/off and resets the channel
Operation status indicator	Green LED (channel OK); Red LED (channel turned off)
Efficiency/Power Losses	
Power loss P_i	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit Protection	
Internal fuse	T 4 A
Safety and Protection	
Reverse voltage protection	No
Pollution degree	2
Transient suppression (primary)	Suppressor diode (33 V)
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,000,000 h (per MIL-HDBK-217F2)
Protection class/protection type	III / IP20
Note on protection type	Per EN 60529
Isolation voltage (connectors – housing)	1.5 kVDC
Connection Data	
Number of jumper slots	8
Note (conductor cross-section)	Use the UL-approved minimum conductor cross-section, depending on the output current: 26 ... 14 AWG (0.5 A); 24 ... 14 AWG (1 A)
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 857 Series
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.08 ... 2.5 mm ² / 26 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Physical Data	
Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	97.8 mm / 3.85 inch
Depth	94 mm / 3.701 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material data	
Weight	53.6 g
Environmental Requirements	
Derating	No derating
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-25 ... +70 °C
Ambient air temperature (storage)	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permitted)
Standards and Specification	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 1310 (NEC Class 2); UL 2367

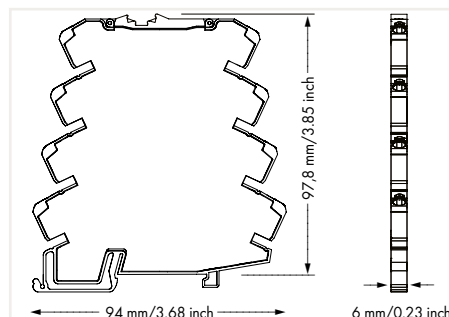
Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 2 A; Signal contact

787 Series



Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 2 A; Signal contact

	Item No.	PU
	787-3861/200-000	1



Features:

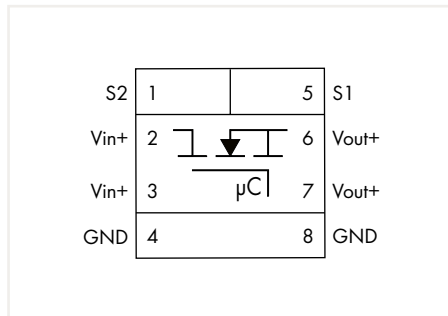
- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 10,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during inter-connected operation

Note:

- The device is intended to be connected to SELV circuits.
- Please use the appropriate minimum conductor cross-section, depending on the output current: AWG 26 (0.5 A); AWG 22 (2 A)

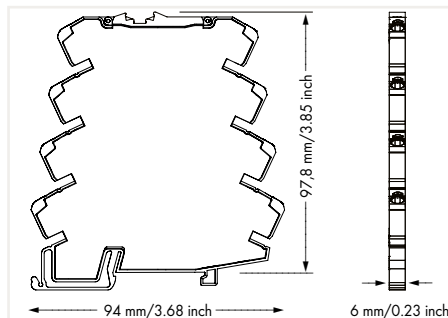
Input	
Nominal input voltage $U_{i,nom}$	24 VDC
Input voltage range	18 ... 30 VDC (SELV)
Output	
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Active current limitation	no
Nominal output voltage $U_{o,nom}$	24 VDC
Output voltage range	18 ... 30 VDC (U_o – voltage drop)
Voltage drop	≤ 160 mV
Nominal output current $I_{o,nom}$	2 A (fixed setting)
Switch-on capacity	< 10,000 µF
Signaling and Communication	
Signaling	1 x Status LED (green/yellow/red); 1 x Control input (15 ... 30 VDC (active high); -3 ... 5 VDC (active low); max. 0.015 A); 1 x Signal output (18 ... 30 VDC, max. 0.015 A), default setting: triggered
Remote input	18 ... 30 VDC signal, switches on/off and resets the channel
Operation status indicator	Green LED (channel OK); Red LED (channel turned off)
Efficiency/Power Losses	
Power loss P_i	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit Protection	
Internal fuse	T 4 A
Safety and Protection	
Reverse voltage protection	No
Pollution degree	2
Transient suppression (primary)	Suppressor diode (33 V)
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,000,000 h (per MIL-HDBK-217F2)
Protection class/protection type	III / IP20
Note on protection type	Per EN 60529
Isolation voltage (connectors – housing)	1.5 kVDC
Connection Data	
Number of jumper slots	8
Note (conductor cross-section)	Use the UL-approved minimum conductor cross-section, depending on the output current: 26 ... 14 AWG (0.5 A); 22 ... 14 AWG (2 A)
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 857 Series
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.08 ... 2.5 mm ² / 26 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Physical Data	
Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	97.8 mm / 3.85 inch
Depth	94 mm / 3.701 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	53.6 g
Environmental Requirements	
Derating	No derating
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-25 ... +70 °C
Ambient air temperature (storage)	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permitted)
Standards and Specification	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 1310 (NEC Class 2); UL 2367

Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 4 A; Signal contact 787 Series



Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 4 A; Signal contact

Item No.	PU
787-3861/400-000	1



Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 10,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during inter-connected operation

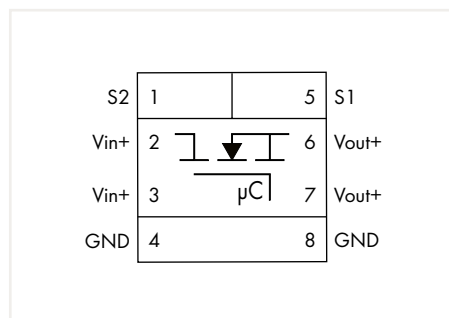
Note:

- The device is intended to be connected to SELV circuits.
- Please use the appropriate minimum conductor cross-section, depending on the output current:
AWG 26 (0.5 A); AWG 20 (4 A)

Input	
Nominal input voltage $U_{i, nom}$	24 VDC
Input voltage range	18 ... 30 VDC (SELV)
Output	
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Active current limitation	no
Nominal output voltage $U_{o, nom}$	24 VDC
Output voltage range	18 ... 30 VDC (U_o – voltage drop)
Voltage drop	≤ 320 mV
Nominal output current $I_{o, nom}$	4 A (fixed setting)
Switch-on capacity	< 10,000 µF
Signaling and Communication	
Signaling	1 x Status LED (green/yellow/red); 1 x Control input (15 ... 30 VDC (active high); -3 ... 5 VDC (active low); max. 0.015 A); 1 x Signal output (18 ... 30 VDC, max. 0.015 A), default setting: triggered
Remote input	18 ... 30 VDC signal, switches on/off and resets the channel
Operation status indicator	Green LED (channel OK); Red LED (channel turned off)
Efficiency/Power Losses	
Power loss P_i	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit Protection	
Internal fuse	T 4 A
Safety and Protection	
Reverse voltage protection	No
Pollution degree	2
Transient suppression (primary)	Suppressor diode (33 V)
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,000,000 h (per MIL-HDBK-217F2)
Protection class/protection type	III / IP20
Note on protection type	Per EN 60529
Isolation voltage (connectors – housing)	1.5 kVDC
Connection Data	
Number of jumper slots	8
Note (conductor cross-section)	Use the UL-approved minimum conductor cross-section, depending on the output current: 26 ... 14 AWG (0.5 A); 20 ... 14 AWG (4 A)
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 857 Series
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.08 ... 2.5 mm ² / 26 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Physical Data	
Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	97.8 mm / 3.85 inch
Depth	94 mm / 3.701 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	53.6 g
Environmental Requirements	
Derating	No derating
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-25 ... +70 °C
Ambient air temperature (storage)	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permitted)
Standards and Specification	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 1310 (NEC Class 2); UL 2367

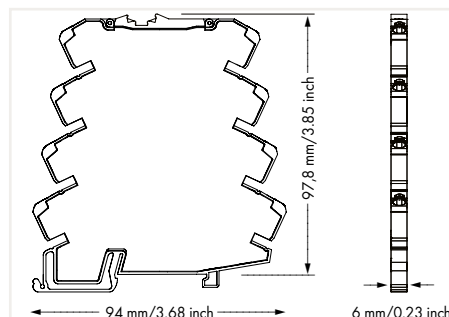
Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 6 A; Signal contact

787 Series



Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 6 A; Signal contact

Item No.	PU
787-3861/600-000	1



Features:

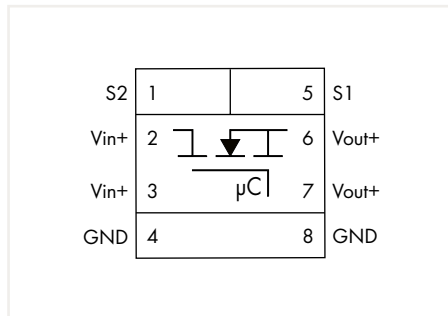
- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 10,000 μF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during inter-connected operation

Note:

- The device is intended to be connected to SELV circuits.
- Please use the appropriate minimum conductor cross-section, depending on the output current: AWG 26 (0.5 A); AWG 18 (6 A)

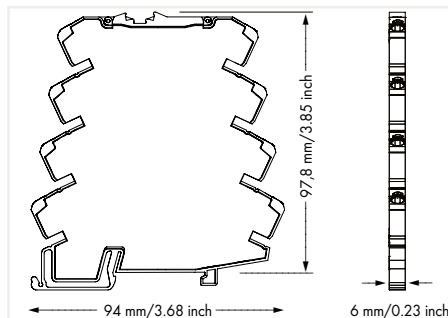
Input	
Nominal input voltage $U_{i,nom}$	24 VDC
Input voltage range	18 ... 30 VDC (SELV)
Output	
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Active current limitation	no
Nominal output voltage $U_{o,nom}$	24 VDC
Output voltage range	18 ... 30 VDC (U_o - voltage drop)
Voltage drop	≤ 180 mV
Nominal output current $I_{o,nom}$	6 A (fixed setting)
Signaling and Communication	
Signaling	1 x Status LED (green/yellow/red); 1 x Control input (15 ... 30 VDC (active high); -3 ... 5 VDC (active low); max. 0.015 A); 1 x Signal output (18 ... 30 VDC, max. 0.015 A), default setting: triggered
Remote input	18 ... 30 VDC signal, switches on/off and resets the channel
Operation status indicator	Green LED (channel OK); Red LED (channel turned off)
Efficiency/Power Losses	
Power loss P_i	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit Protection	
Internal fuse	T 8 A
Safety and Protection	
Reverse voltage protection	No
Pollution degree	2
Transient suppression (primary)	Suppressor diode (33 V)
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,000,000 h (per MIL-HDBK-217F2)
Protection class/protection type	III / IP20
Note on protection type	Per EN 60529
Isolation voltage (connectors – housing)	1.5 kVDC
Connection Data	
Number of jumper slots	8
Note (conductor cross-section)	Use the UL-approved minimum conductor cross-section, depending on the output current: 26 ... 14 AWG (0.5 A); 18 ... 14 AWG (6 A)
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 857 Series
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.08 ... 2.5 mm ² / 26 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Physical Data	
Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	97.8 mm / 3.85 inch
Depth	94 mm / 3.701 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	53.6 g
Environmental Requirements	
Derating	No derating
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-25 ... +70 °C
Ambient air temperature (storage)	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permitted)
Standards and Specification	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 1310 (NEC Class 2); UL 2367

Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 8 A; Signal contact 787 Series



Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 8 A; Signal contact

Item No.	PU
787-3861/800-000	1



Features:

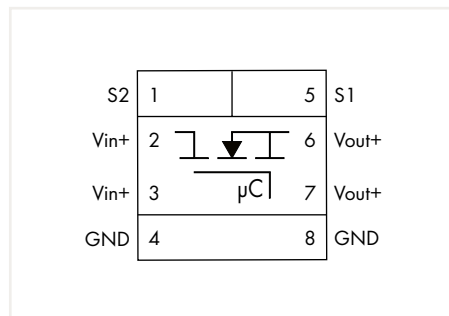
- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 10,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during inter-connected operation

Note:

- The device is intended to be connected to SELV circuits.
- Please use the appropriate minimum conductor cross-section, depending on the output current: AWG 26 (0.5 A); AWG 16 (8 A)

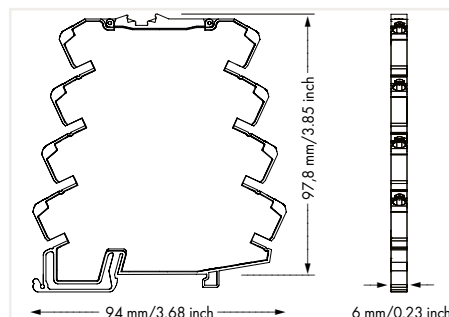
Input	
Nominal input voltage $U_{i, nom}$	24 VDC
Input voltage range	18 ... 30 VDC (SELV)
Output	
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Active current limitation	no
Nominal output voltage $U_{o, nom}$	24 VDC
Output voltage range	18 ... 30 VDC (U_o - voltage drop)
Voltage drop	≤ 240 mV
Nominal output current $I_{o, nom}$	8 A (fixed setting)
Signaling and Communication	
Signaling	1 x Status LED (green/yellow/red); 1 x Control input (15 ... 30 VDC (active high); -3 ... 5 VDC (active low); max. 0.015 A); 1 x Signal output (18 ... 30 VDC, max. 0.015 A), default setting: triggered
Remote input	18 ... 30 VDC signal, switches on/off and resets the channel
Operation status indicator	Green LED (channel OK); Red LED (channel turned off)
Efficiency/Power Losses	
Power loss P_i	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit Protection	
Internal fuse	T 10 A
Safety and Protection	
Reverse voltage protection	No
Pollution degree	2
Transient suppression (primary)	Suppressor diode (33 V)
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,000,000 h (per MIL-HDBK-217F2)
Protection class/protection type	III / IP20
Note on protection type	Per EN 60529
Isolation voltage (connectors – housing)	1.5 kVDC
Connection Data	
Number of jumper slots	8
Note (conductor cross-section)	Use the UL-approved minimum conductor cross-section, depending on the output current: 26 ... 14 AWG (0.5 A); 16 ... 14 AWG (8 A)
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 857 Series
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.08 ... 2.5 mm ² / 26 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Physical Data	
Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	97.8 mm / 3.85 inch
Depth	94 mm / 3.701 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	53.6 g
Environmental Requirements	
Derating	No derating
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-25 ... +70 °C
Ambient air temperature (storage)	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permitted)
Standards and Specification	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 2367

Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 1 ... 4 A; Signal contact 787 Series



Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 1 ... 4 A; Signal contact

Item No.	PU
787-3861/004-020	1



Features:

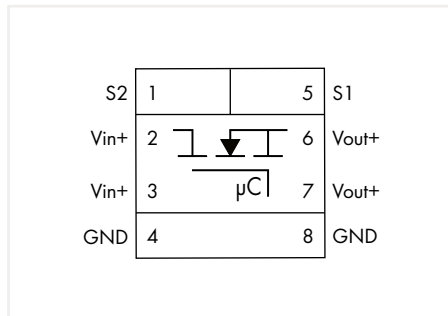
- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 10,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during inter-connected operation

Note:

- The device is intended to be connected to SELV circuits.
- Please use the appropriate minimum conductor cross-section, depending on the output current: AWG 26 (0.5 A); AWG 24 (1 A / 1.5 A); AWG 22 (2 A / 2.5 A); AWG 20 (3 A / 3.5 A / 4 A)

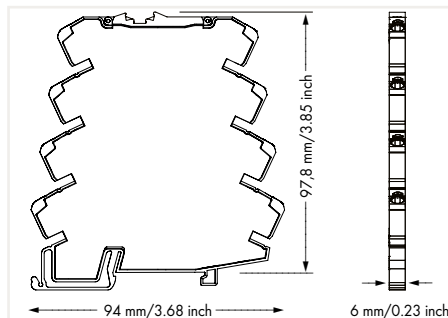
Input	
Nominal input voltage $U_{i, nom}$	24 VDC
Input voltage range	18 ... 30 VDC (SELV)
Output	
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Active current limitation	no
Nominal output voltage $U_{o, nom}$	24 VDC
Output voltage range	18 ... 30 VDC (U_o – voltage drop)
Voltage drop	≤ 40 mV (0.5 A); ≤ 80 mV (1 A); ≤ 120 mV (1.5 A); ≤ 160 mV (2 A); ≤ 200 mV (2.5 A); ≤ 240 mV (3 A); ≤ 280 mV (3.5 A); ≤ 320 mV (4 A)
Nominal output current $I_{o, nom}$	0.5 / 1 / 1.5 / 2 / 2.5 / 3 / 3.5 / 4 A (adjustable)
Default setting	0.5 ADC; switched off
Switch-on capacity	< 10000 µF per channel
Signaling and Communication	
Signaling	1 x Status LED (green/yellow/red); 1 x Control input (15 ... 30 VDC (active high); -3 ... 5 VDC (active low); max. 0.015 A); 1 x Signal output (18 ... 30 VDC, max. 0.015 A), default setting: triggered
Remote input	18 ... 30 VDC signal, switches on/off and resets the channel
Operation status indicator	Green LED (channel OK); Red LED (channel turned off)
Efficiency/Power Losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit Protection	
Internal fuse	T 4 A
Safety and Protection	
Reverse voltage protection	No
Pollution degree	2
Transient suppression (primary)	Suppressor diode (33 V)
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,000,000 h (per MIL-HDBK-217F2)
Protection class/protection type	III / IP20
Note on protection type	Per EN 60529
Isolation voltage (connectors – housing)	1.5 kVDC
Connection Data	
Number of jumper slots	8
Note (conductor cross-section)	Use the UL-approved minimum conductor cross-section, depending on the output current: 26 ... 14 AWG (0.5 A); 24 ... 14 AWG (1 A / 1.5 A); 22 ... 14 AWG (2 A / 2.5 A); 20 ... 14 AWG (3 A / 3.5 A / 4 A)
Connection technology	WAGO connector
WAGO connector	WAGO 857 Series
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.08 ... 2.5 mm ² / 26 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Physical Data	
Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	97.8 mm / 3.85 inch
Depth	94 mm / 3.701 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	53.6 g
Environmental Requirements	
Derating	No derating
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-25 ... +70 °C
Ambient air temperature (storage)	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permitted)
Standards and Specification	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 1310 (NEC Class 2); UL 2367

Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 1 ... 8 A; Signal contact 787 Series



Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 1 ... 8 A; Signal contact

Item No.	PU
787-3861/108-020	1



Features:

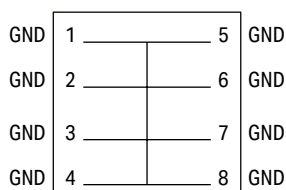
- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 10,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during inter-connected operation

Note:

- The device is intended to be connected to SELV circuits.
- Please use the appropriate minimum conductor cross-section, depending on the output current:
AWG 26 (0.5 A); AWG 24 (1 A); AWG 22 (2 A);
AWG 20 (3 A / 4 A); AWG 18 (5 A / 6 A); AWG 16 (7 A / 8 A)

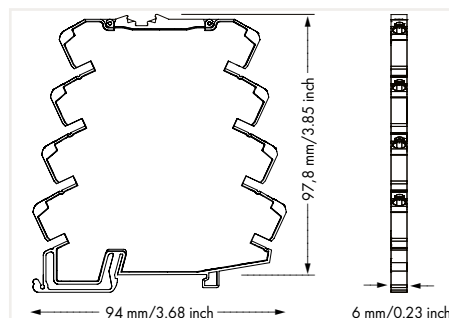
Input	
Nominal input voltage $U_{i, nom}$	24 VDC
Input voltage range	18 ... 30 VDC (SELV)
Output	
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Active current limitation	no
Nominal output voltage $U_{o, nom}$	24 VDC
Output voltage range	18 ... 30 VDC (U_o - voltage drop)
Voltage drop	≤ 80 mV (1 A); ≤ 160 mV (2 A); ≤ 240 mV (3 A); ≤ 320 mV (4 A); ≤ 150 mV (5 A); ≤ 180 mV (6 A); ≤ 210 mV (7 A); ≤ 240 mV (8 A)
Nominal output current $I_{o, nom}$	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 A (adjustable)
Default setting	1 ADC; switched off
Signaling and Communication	
Signaling	1 x Status LED (green/yellow/red); 1 x Control input (15 ... 30 VDC (active high); -3 ... 5 VDC (active low); max. 0.015 A); 1 x Signal output (18 ... 30 VDC, max. 0.015 A), default setting: triggered
Remote input	18 ... 30 VDC signal, switches on/off and resets the channel
Operation status indicator	Green LED (channel OK); Red LED (channel turned off)
Efficiency/Power Losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit Protection	
Internal fuse	T 10 A
Safety and Protection	
Reverse voltage protection	No
Pollution degree	2
Transient suppression (primary)	Suppressor diode (33 V)
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,000,000 h (per MIL-HDBK-217F2)
Protection class/protection type	III / IP20
Note on protection type	Per EN 60529
Isolation voltage (connectors – housing)	1.5 kVDC
Connection Data	
Number of jumper slots	8
Note (conductor cross-section)	Use the UL-approved minimum conductor cross-section, depending on the output current: 26 ... 14 AWG (0.5 A); 24 ... 14 AWG (1 A); 22 ... 14 AWG (2 A); 20 ... 14 AWG (3 A / 4 A); 18 ... 14 AWG (5 A / 6 A); 16 ... 14 AWG (7 A / 8 A)
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 857 Series
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.08 ... 2.5 mm ² / 26 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Physical Data	
Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	97.8 mm / 3.85 inch
Depth	94 mm / 3.701 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	53.6 g
Environmental Requirements	
Derating	No derating
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-25 ... +70 °C
Ambient air temperature (storage)	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permitted)
Standards and Specification	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 2367

Potential distribution module; 8-way 0 VDC 787 Series



Potential distribution module; 8-way 0 VDC

Item No.	PU
787-3861/000-1000	1



Note:

- The device is intended to be connected to SELV circuits.

Electrical Data

Nominal operating voltage	24 VDC
Operating voltage	0 ... 30 VDC
Limiting continuous current	20 A; 15 A (UL)

Safety and Protection

Pollution degree	2
Protection class/Protection type	III / IP20
Note on protection type	per EN 60529

Connection Data

Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.08 ... 2.5 mm ² / 26 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG

Physical Data

Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	97.8 mm / 3.85 inch
Depth	94 mm / 3.701 inch

Mechanical Data

Mounting type	DIN-35 rail
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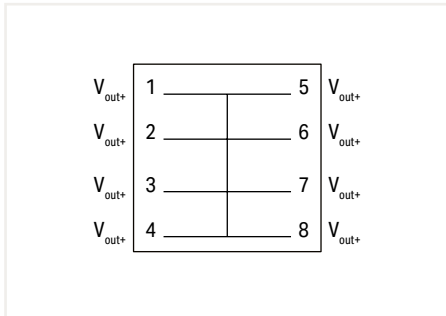
Environmental Requirements

Operating altitude (max.)	2000 m
Ambient temperature (operation)	-25 ... +70 °C
Ambient air temperature (storage)	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permissible)

Standards and Specifications

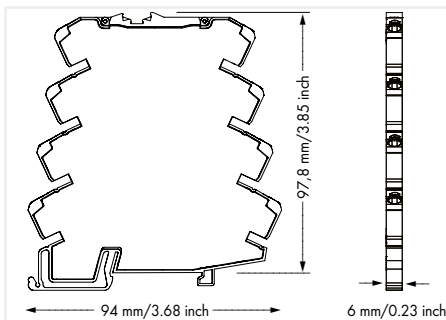
Conformity marking	CE
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Potential distribution module; 8-way 24 VDC 787 Series



Potential distribution module; 8-way 24 VDC

Item No.	PU
787-3861/000-2000	1

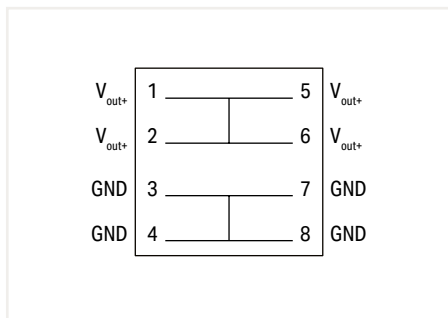


Note:

- The device is intended to be connected to SELV circuits.

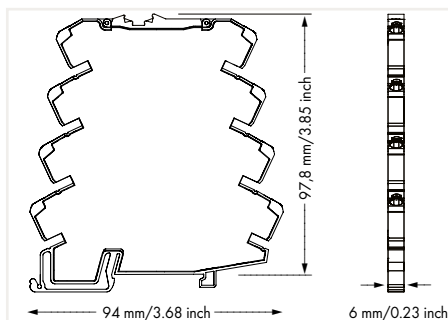
Electrical Data	
Nominal operating voltage	24 VDC
Operating voltage	0 ... 30 VDC
Limiting continuous current	20 A; 15 A (UL)
Safety and Protection	
Pollution degree	2
Protection class/Protection type	III / IP20
Note on protection type	per EN 60529
Connection Data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.08 ... 2.5 mm ² / 26 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Physical Data	
Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	97.8 mm / 3.85 inch
Depth	94 mm / 3.701 inch
Mechanical Data	
Mounting type	DIN-35 rail
Environmental Requirements	
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-25 ... +70 °C
Ambient air temperature (storage)	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permissible)
Standards and Specifications	
Conformity marking	CE

Potential distribution module; 4-way 24 VDC / 4-way 0 VDC 787 Series



Potential distribution module; 4-way 24 VDC / 4-way 0 VDC

Item No.	PU
787-3861/000-3000	1



Note:

- The device is intended to be connected to SELV circuits.

Electrical Data

Nominal operating voltage	24 VDC
Operating voltage	0 ... 30 VDC
Limiting continuous current	20 A; 15 A (UL)

Safety and Protection

Pollution degree	2
Protection class/Protection type	III / IP20
Note on protection type	per EN 60529

Connection Data

Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.08 ... 2.5 mm ² / 26 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG

Physical Data

Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	97.8 mm / 3.85 inch
Depth	94 mm / 3.701 inch

Mechanical Data

Mounting type	DIN-35 rail
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Environmental Requirements

Operating altitude (max.)	2000 m
Ambient temperature (operation)	-25 ... +70 °C
Ambient air temperature (storage)	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permissible)





Standards and Specifications

Conformity marking	CE
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Volume 6, WAGO Marking

Volume 6, WAGO Marking

		Page
	Smart Printer	82
	Safety labels	84
	Marking strips	84
	Cable tie marker	85

Marking device

Printer model: Smart Printer ▶ Marking method: Thermotransfer



Connection Data

Interfaces	USB, RS-232, Ethernet 10/100 Mbps
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System Requirements

Memory	4 GB
Supported operating systems	Windows 7; Windows 8; Windows 10

Technical Data

Operating voltage	100 ... 240 VAC, 50 ... 60 Hz (automatic adjustment)
Marking method	Thermal transfer
Print head	Glass layer, spring-mounted
Print speed (max.)	max. 127 mm/s (WAGO recommends 50.8 mm/s)
See-through/reflective sensor	yes, centrally fixed
Operating display	Color TFT LCD with navigation button
Safety approvals	CE (EMC)
Ink ribbon	Reel outside diameter: 40 mm; core inside diameter 12.7 mm (0.5 inch); max. length 110 m; max. width 58 mm
Memory	8 MB
Print resolution	300 dpi (12 pixels/mm)
Print width (max.)	47 mm
Print length (max.)	762 mm

Mechanical Data

Dimensions W x H x D	(135 x 175 x 245) mm
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Environmental Requirements

Surrounding air temperature (operation)	5 ... 40 °C
Surrounding air temperature (storage)	-20 ... 50 °C

Marking device

Printer model: Smart Printer ▶ Marking method: Thermotransfer

Scope of delivery: Power supply + cable, 2 x roller (258-5006 + 258-5007), 1 x reel holder, 1 x ink ribbon (258-5005), Smart Script marking software and driver, USB cable, external unwinder

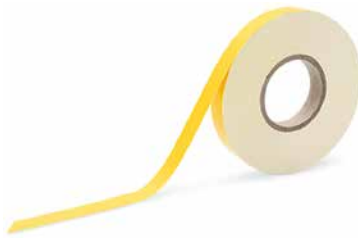


258-5001

	Item No.	PU
	258-5001	1

PU = Packaging Unit; SPU = Subpackaging Unit

Safety labels; Marking strips 210 / 2009 Series

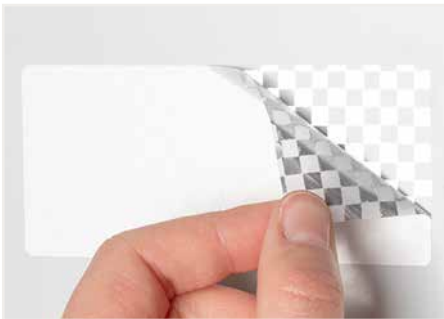


Safety labels; 99 x 44 mm; 300 labels/reel

Color	Item No.	Pack. Unit
○ silver	210-824	1

Marking strips; for Smart Printer; on reel; not stretchable; plain; 11 mm wide; 20 m reel

Color	Item No.	Pack. Unit
● yellow	2009-110/020-002	1



Cable tie marker 211 Series



Cable tie marker; for Smart Printer; plain; for use with cable ties; 25 x 10 mm; 500 S00 pcs/reel

Color	Item No.	Pack. Unit
● yellow	211-835/000-002	1
● red	211-835/000-005	1
○ white	211-835	1

Cable tie marker; for Smart Printer; plain; for use with cable ties; 100 x 15 mm; 800 pcs/reel


Color	Item No.	Pack. Unit
● yellow	211-836/000-002	1
● red	211-836/000-005	1
○ white	211-836	1

Cable tie marker; for Smart Printer; plain; for use with cable ties; 44 x 10 mm; 500 pcs/reel

Color	Item No.	Pack. Unit
● yellow	211-837/000-002	1
○ white	211-837	1

Accessories

Cable tie; 2.5 x 100 mm

	807-090/101-100	1
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Item No.	Page	Item No.	Page	Item No.	Page	Item No.	Page

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