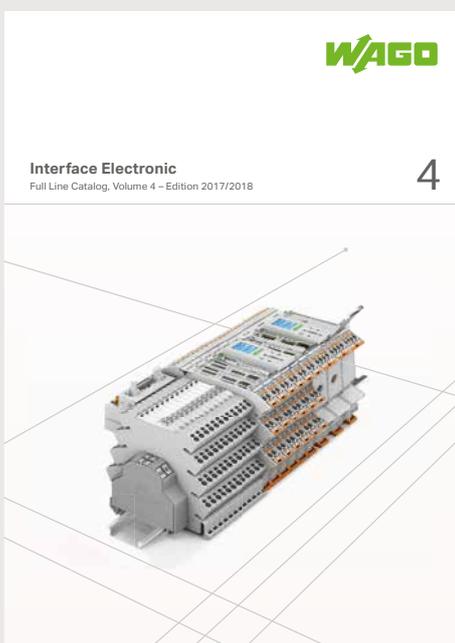
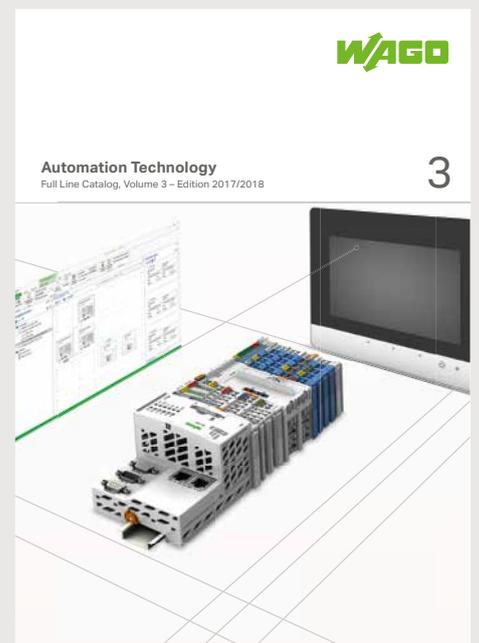
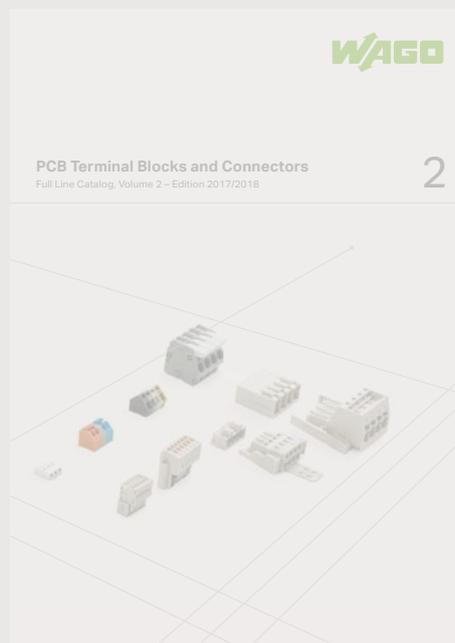
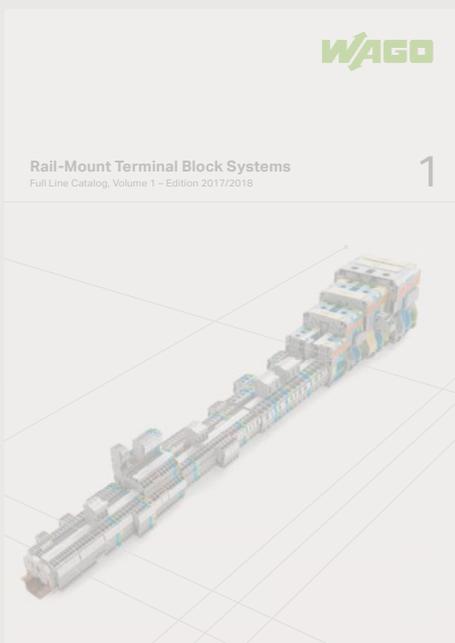


Automation Technology and Interface Electronic

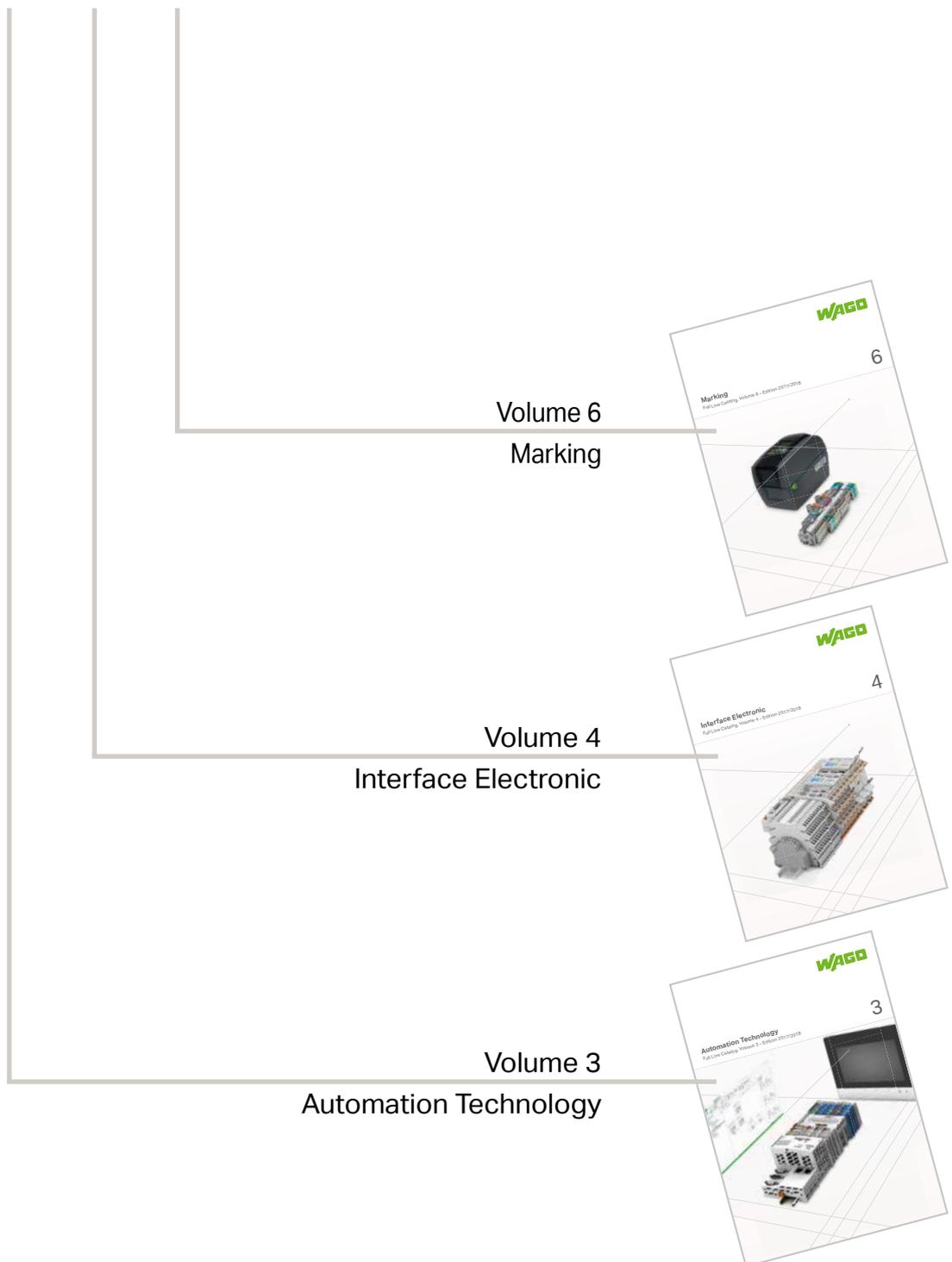
Supplementary Catalog to Full Line Catalogs, Volumes 3/4/6

Edition 2018/1



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

N 3/4/6



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e!COCKPIT Profiler

Runtime Behavior Analysis

The e!COCKPIT Profiler add-on allows programmers and application developers to measure and evaluate the processing times and code coverage of the different blocks in an IEC 61131-3 application at an early stage. This add-on can be seamlessly integrated into the e!COCKPIT Engineering Software and measurement may be performed parallel to the application development in the standard development environment.



Advantages:

- Measure both machine code's runtime behavior and code coverage right at the beginning of the development phase
- Detect runtime problems at an early stage
- Identify both time-consuming program parts and unused programming blocks
- Overall and individual measurement of all application blocks
- Identify the code efficiency by comparing historical and actual measurements
- Increase the software quality

Main functions:

- Implicit binary code extension during translation, without changing the program code of a project
- Dynamic measurement via code instrumentation at each function entry and exit
- Only during measurement: temporary code enlargement and runtime extension of 10 to 50%
- Measurement start by a variable or by command
- Overview of the measurement results in the development environment

Functions:

- Control the runtime measurement via freely selectable Boolean variable
- Measure the runtime of individual programming blocks and function block instances within the "profiler watch list"
- Measure the percentage of missed instructions per block via code coverage
- Measurement results show the time-critical path

Setting options:

- Select the task to be measured
- Select the unit base (tick, milliseconds or microseconds)
- Define the memory size required for the measurement
- Adjust the measurement behavior (next or maximum cycle)
- Select the calls to be measured in the monitoring list
- Select the program blocks to be measured to determine the code coverage

The results in detail:

- Percentage of time spent in the call
- Total time spent in call
- Average time of all POU calls in a single cycle
- Minimum and maximum processing time over multiple cycles
- Number of calls
- Time spent for each call
- Standard deviation of average measured time
- Percentage of the iterated code

Display the results as:

- Summary table
- Call tree (time- or process-oriented)
- Tables
- Watch list

100,00 %	MAINTASK	246,344 µs	1 Call
99,99 %	PLC_PRG (PRG)	246,324 µs	1 Call
95,34 %	CoDeSysPlays (FUN)	234,876 µs	2 Calls • Avg: 117,438 µs Min: 9
76,85 %	GetNumOfCouples (FUN)	189,324 µs	485 Calls • Avg: 0,390
35,34 %	SelectableTile (FUN)	87,059 µs	51526 Calls • Avg: 0,002
6,20 %	SelectableTile (FUN)	15,265 µs	9056 Calls • Avg: 0,002 µs Min: 0
0,60 %	TILEFIELD_TYPE.FB_INIT	1,472 µs	2 Calls • Avg: 0,736 µs Min: 0
0,59 %	STF_ENTRY.FB_INIT	1,443 µs	200 Calls • Avg: 0,007 µs Min: 0
3,93 %	CoDeSysPlays_1 (FUN)	9,676 µs	1 Call

Item Description	Item No.
e!COCKPIT Profiler, Single License	2759-404/1420-1000

Minimum e!COCKPIT version	V1.4.0
Hard disk space	30 MB
Delivery type	Installation file (download)

Internet connection may be required for license activation.

Single license allows installation on one computer.

e!COCKPIT Static Analysis Static Code Analysis

In addition to the compiler check, the **e!COCKPIT** Static Analysis add-on checks the source code based on defined rules and naming conventions. This add-on displays potential development problems, allowing errors to be detected and corrected before field testing. More than 100 partly parameterizable rules have already been implemented that can be combined into individual rule sets. The add-on functions are seamlessly integrated into the **e!COCKPIT** development environment.



Advantages:

- Avoid errors during program creation
- Save time-consuming troubleshooting during application development
- Ensure that the program code conforms to the defined rules and is easily readable

Main functions:

- Check the application explicitly via menu command
- Alternatively: automatic verification during code generation
- Control pre-processor instructions, and determine which parts of the code will be analyzed

Rules and naming conventions:

Within the **e!COCKPIT** project settings, a standard set of programming rules and naming conventions can be configured in the standard version:

- Unused variables
- Overlapping memory areas
- Simultaneous access
- Multiple write access to output
- Multiple use of the name

Additionally, the following analytics can be performed with **e!COCKPIT** Static Analysis:

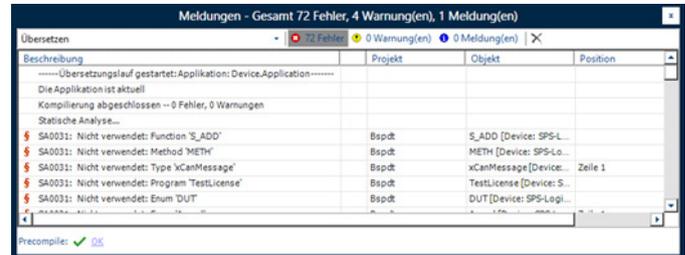
- Discover unaccessible codes
- Find empty objects
- Find empty instructions
- Find useless declarations
- Conversions
- Write access to input variables
- Rules for operators
- Rules for FOR and CASE instructions
- Strict testing of IEC rules

Item Description	Item No.
e!COCKPIT Static Analysis; Single License	2759-403/1420-1000

Single license allows installation on one computer.

Result of the analysis:

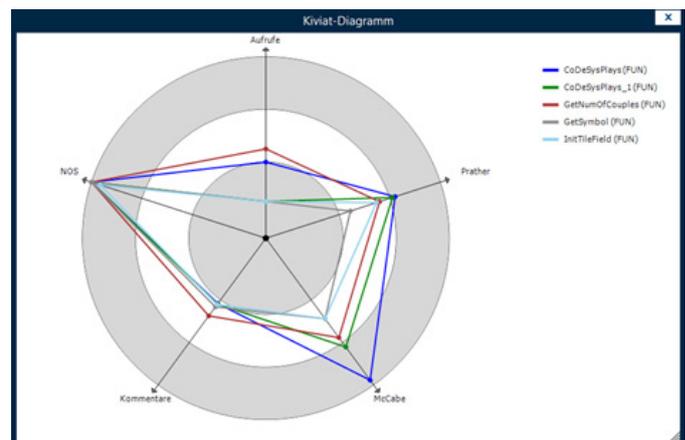
The result of the analysis is displayed in the message window. Each violation has a unique number and can be uniquely assigned to the configured rules and naming conventions.



Metrics:

Various metrics, such as the number of code lines, memory consumption or the evaluation of software complexity, as well as the upper and lower limits to be observed, can be configured to evaluate the code quality.

The results of the applied metrics can be displayed in tabular and graphical form as a Kiviät diagram.



Minimum e!COCKPIT version	V1.4.0
Hard disk space	30 MB
Delivery type	Installation file (download)

Internet connection may be required for license activation.

e!COCKPIT UML Software Modeling in UML

UML (Unified Modeling Language) is a graphical language for specifying, designing and documenting object-oriented software. It clearly facilitates discussions between programming and other disciplines within the system development. The e!COCKPIT UML add-on extends the e!COCKPIT Engineering Software with two languages of the "Unified Modeling Language": the class diagram and the status diagram.

Advantages:

- Improved readability of the program code via clear class and behavior diagrams in standardized form
- Reduce programming errors by generating program code from UML diagrams
- Easier debugging through online data in the state diagram

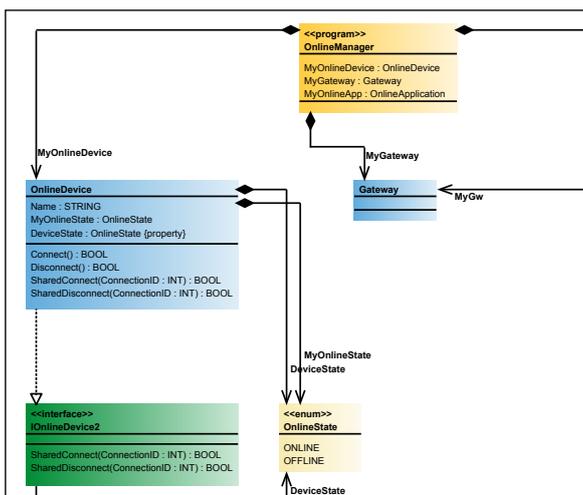
Class diagram:

The class diagram belongs to the group of UML structure diagrams. With the additional graphic editor, the object-oriented structure of e!COCKPIT projects can be mapped or designed. The various object classes (e.g., function blocks or interfaces), including the variables and methods used in them, and their relationships are clearly displayed.

The existing project structure can be imported directly from the device structure when creating a class diagram. However, a project structure can also be rebuilt using the following available class and relationship elements:

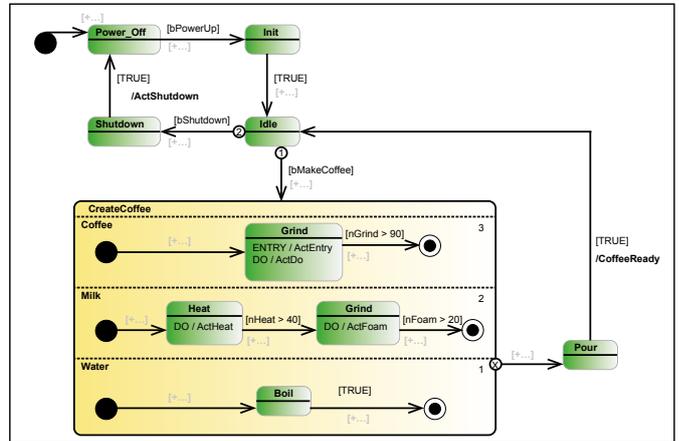
- Class (POU)
- Interface
- Variable declaration
- Property
- Method
- Generalization
- Realization relationship
- Association
- Composition

New objects in the class diagram editor are automatically inserted into the device structure.



State diagram:

The state diagram belongs to the group of UML behavior diagrams. It is a graphical language for specifying and designing the sequence of event-discrete systems. Unlike the class diagram, executable application code is generated when compiling a state diagram.



The state diagram editor includes a selection of step and transition elements:

- Start state
- End state
- State
- Composite state
- Junction/connection
- Selection
- Transition
- End transition
- Exception transition

When the application is running, the status diagram is switched according to the clock cycle. In addition, an independent switching behavior can be realized via cyclic internal state diagrams. When online, the state diagram is animated so that the current status of the process can be tracked at any time.

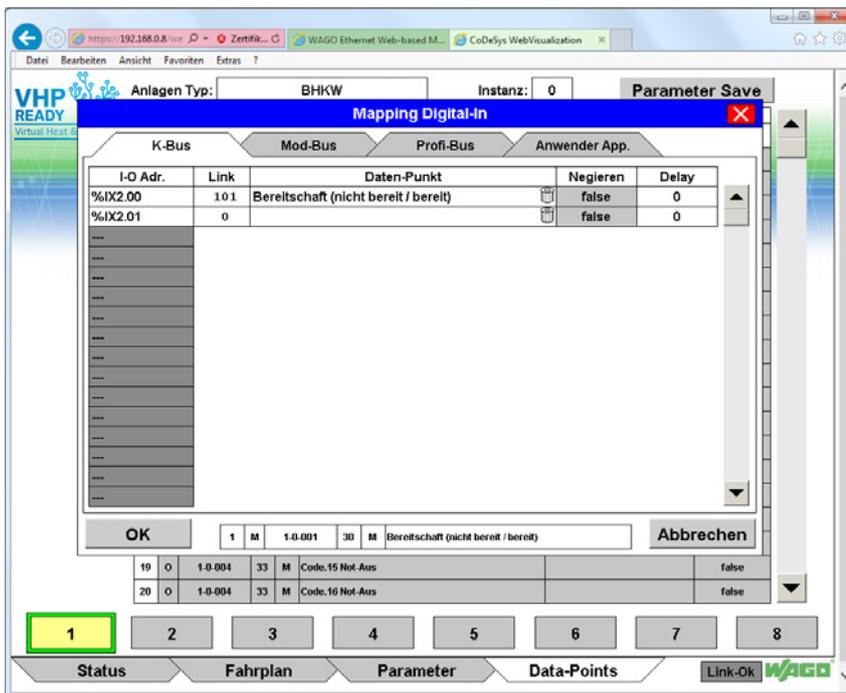
Item Description	Item No.
e!COCKPIT UML; Single-User License	2759-402/1420-1000

Minimum e!COCKPIT version	V1.3.0
Hard disk space	20 MB
Delivery type	Installation file (download)

Internet connection may be required for license activation.

Single license allows installation on one computer.

WAGO VHPready Application



VHPready is an industry standard for networking distributed energy systems. The WAGO VHPready Application implements the standard data models for photovoltaic (PV) power stations, combined heat and power plants (CHP), wind turbine farms and solar plants, heat pumps, batteries, electric heaters, boilers, buffers, meters and detectors.

A WAGO controller with VHPready Application can simultaneously connect up to eight plants of these types to a VHPready-compliant control system. The data points of the decentralized systems can be connected via MODBUS, PROFIBUS and selected types of 750/753 Series I/O Modules. The SCADA system can be used to load timetables to the controller with a VHPready Application.

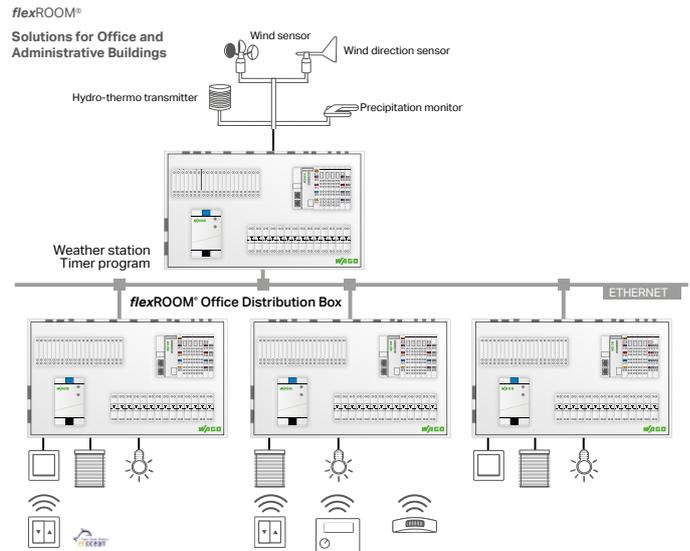
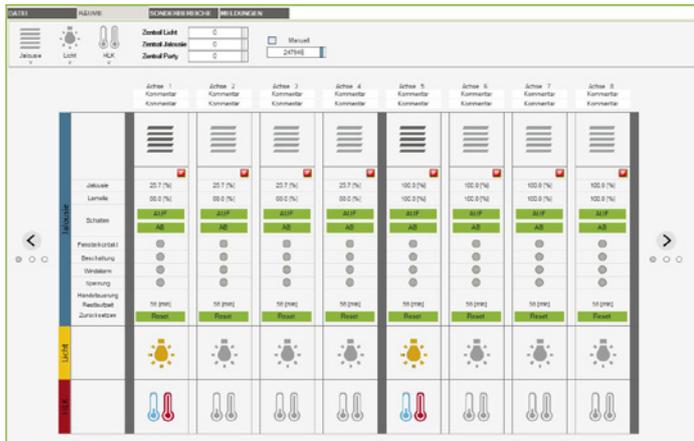
The application is parameterized via the Webserver of the controller with a standard Web browser.

Settings can be saved to the SD card and loaded from there.

Item Description	Item No.	Pack. Unit
VHPready Application	2759-240/210-4000	1
Accessories		
Compatible Controllers:	Item No.	Pack. Unit
PFC200 CS 2ETH RS Telecontrol/T	750-8202/025-001	1
PFC200 CS 2ETH RS Telecontrol ECO/T	750-8202/025-002	1
PFC200 CS 2ETH RS CAN DPS Telecontrol/T	750-8206/025-001	1
PFC200 CS 2ETH RS 3G Telecontrol/T	750-8207/025-001	1
Compatible Digital Input Modules:		
8-Channel Digital Input, 24 VDC, 3.0 ms	750-1415	1
Compatible Digital Output Modules:		
8-Channel Digital Output, 24 VDC, 0.5 A, 2 Conductors	750-1515	1
Compatible Analog Input Modules:		
8-Channel Analog Input, ± 10 VDC/0 ... 10 VDC	750-497	1
8-Channel Analog Input, 0/4 ... 20 mA	750-496	1
Compatible Analog Output Modules:		
8-Channel Analog Output, ± 10 VDC/0 ... 10 V	750-597	1
4-Channel Analog Output, 4 ... 20 mA	750-555	1
Other:		
End Module for WAGO-I/O-SYSTEM 750	750-600	1
SD Memory Card, 2 GB	758-879/000-001	1

VHPready standard version	4.0
Number of logical VHPready devices	Max. 8
VHPready data models	PV power station, CHP, wind turbine, solar system, heat pump, battery, electric heater, boiler, buffer storage, counters, other detectors
Data collection and output	Digital/analog input modules and digital/analog output modules, selected types of 750/753 Series I/O Modules, maximum 8 modules, MODBUS, PROFIBUS Slave (750-8206/025-001)
Stations of a VHPready-compliant control system	
Control system per IEC 60870-5-104 (Revision 1)	Max. 4 control stations
Control system per IEC 60870-5-104 (Revision 2)	Max. 2 control stations

WAGO flexROOM®



flexROOM® is ideal for automating industrial and functional buildings (office buildings). This solution automates both lighting and sun protection, while performing single-room control (heating/cooling) for up to 24 room segments. A room segment is the smallest common denominator. A wide range of 750/753 Series Digital Input/Output Modules are supported. The number of components can be planned and customized to meet individual requirements. For detailed information about supported hardware components, see the manual at www.wago.com/flexROOM.

Each WAGO flexROOM® Controller has a Web interface. Both the commissioning technician and end-user can configure the controls for each room via Web browser, regardless of their location or distribution box. Entire floor plans (setting and deleting walls) and room parameter settings, such as lighting and shading groups, can be changed from the parameter interface. No additional software is required.

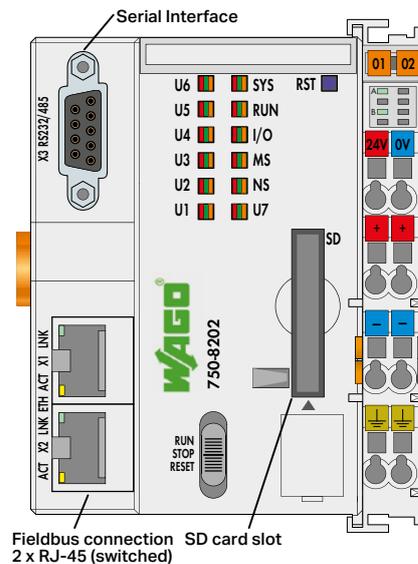
WAGO flexROOM®			
	Components		Item No.
Application Controllers	Controller PFC200		750-8202/000-011
	flexROOM Application Software		Download: wago.com/applicationcontroller
Additional Modules	16-Channel Digital Input; 24 VDC; 3 ms		750-1405
	16-Channel Digital Output; 24 VDC; 0.5 A		750-1504
	RS-232/-485 Serial Interface		750-652
	DALI Multi-Master Module		753-647
	DALI Multi-Master DC/DC Converter		753-620
	End Module		750-600
DALI Accessories	DALI Sensors	WAGO DALI Multi-Sensor Kit	2851-8201
		• DALI Sensor Coupler	
		• ECO-CI Kit	
		• MULTI-3-CL Sensor	
		DALI Sensor Coupler	2851-8202
		WAGO DALI MSensor-02 5DPI 41rc (ceiling installation)	2851-8301
		WAGO DALI MSensor-02 5DPI 41w (box installation)	2851-8302
		WAGO DALI MSensor-02 5DPI 41rs (surface mounting)	2851-8303
EnOcean Accessories	EnOcean Radio Transmitter	EnOcean easyfit PTM 250	758-940/001-000
		• 2-channel lighting control	758-940/003-000
		• 2-channel blind control	758-940/002-000
		• 4-channel lighting control	758-940/004-000
		• 4-channel blind control	
WINSTA® Accessories	Connector Set	Predefined connector sets	
	Couplers/Distribution Connectors	h-distribution connectors	
	Distribution Boxes	Distribution connectors with phase selection	
	Connecting Cables	Pre-assembled with various connectors	
		Various cable types/cross-sections	
	Tools	Actuation tool	
		Wiring tool	

PFC200 Controller

FG1; 2 x ETHERNET, RS-232/-485



Figure: 750-8202



Item Description	PFC200
Version	FG1 2ETH RS
Item No.	750-8202/000-011
Technical Data	
Fieldbus	Modbus TCP
Protocols	DHCP, DNS, NTP, FTP, FTPS, SNMP, HTTP, HTTPS, SSH, Modbus (TCP, UDP, RTU)
Communication	RS-232/-485 serial interface (switchable)
Visualization	Web-Visu, Webserver
Programming	WAGO-I/O-PRO V2.3 (based on CODESYS V2.3), e!COCKPIT (based on CODESYS V3)
CPU	Cortex A8, 600 MHz
Operating system	Real-time Linux (with RT-Preempt patch)
Main memory (RAM)/internal memory (flash)/non-volatile memory (hardware)	256 MB / 256 MB / 128 KB
Program memory/data memory/non-volatile memory (software)	CODESYS V2: 16 MB / 64 MB / 128 KB e!RUNTIME: 60 MB* / 60 MB* / 128 KB
Number of I/O modules per node (max.)	250
Input and output process image (internal) max.	1000 words
Input and output process image (MODBUS) max.	CODESYS V2: 1000 words e!RUNTIME: 32000 words
Supply voltage (system)	24 VDC (-25 ... +30 %)
Total current for system supply	1700 mA
Ambient temperature (operation)	0 ... +55 °C
Dimensions W x H x D	78.6 x 71.9 x 100 mm
Approvals	CE, UL 508, ANSI/ISA, ATEX/IECEx
Data sheet and further information, see:	wago.com/750-8202/000-011
Accessories	
SD memory card, 2 GB	Item No. 758-879/000-001
WAGO communication cable	750-923

*Program and data memory (dynamically distributed)

e!COCKPIT Software, WAGO-I/O-PRO V2.3
See Full Line Catalog, Volume 3

Mini-WSB Quick Marking System,
see Full Line Catalog, Volume 6

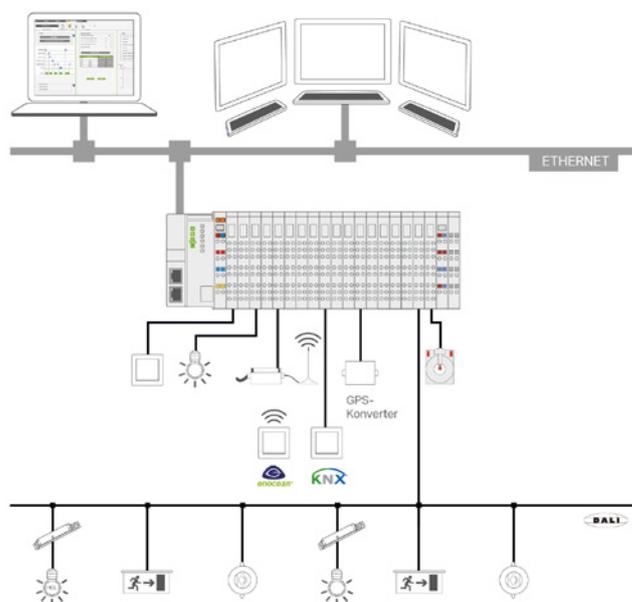
WAGO Lighting Management



WAGO Lighting Management is a proven concept based on predefined hardware and preconfigured software, which greatly simplifies planning, commissioning and operation.

The basic idea: WAGO Lighting Management is based on different lighting requirements in warehouses and production facilities.

For example, a production facility is divided into virtual rooms in which the light can be flexibly adapted. Each virtual room receives signals from sensors and actuators in order to automatically set the appropriate light intensity. By using the virtual rooms, conversions and room remodeling can be implemented quickly and simply via Web configuration.



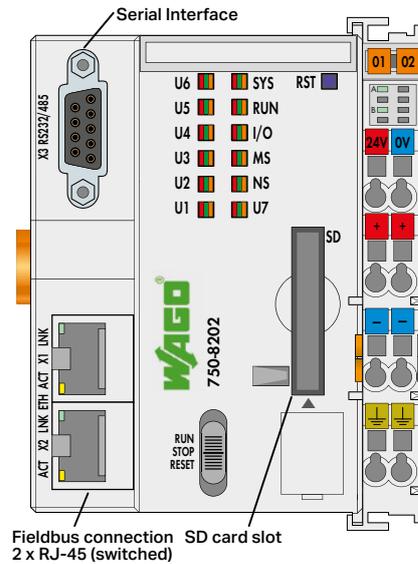
WAGO Lighting Management			
	Components	Item No.	Note
Base unit	Lighting Management – Controller	750-8202/000-012	The controllers can communicate with each other.
	Lighting Management – Software	Free of charge	Download: wago.com/applicationcontroller
	DALI Multi-Master Module	753-647	In addition to 64 DALI actuators (ECGs), a DALI-Multi Master supports up to 16 DALI-Multi sensors (max. 64 sensor addresses); max. 10 DALI modules per base package.
	End Module	750-600	An end module must be snapped onto the assembly at the end of a fieldbus node.
	Power Supply to I/O Node	787-1012	24 VDC supply voltage for controllers and additional modules
	Power Supply to DALI Multi-Master	787-1007	Power supply to max. 5 DALI Multi-Masters
Extension for inputs/push-buttons	16-Channel Digital Input; 24 VDC; 3 ms	750-1405	For 1–16 light push-buttons/switch inputs; max. 4 extensions per base package
Extension for outputs/actuators	16-Channel Digital Output; 24 VDC; 0.5 A	750-1504	For 1–16 actuators/lamps/relays/ECG control; max. 2 extensions per base package
	Relay socket with relay and status indicator; 1 make contact; 24 VDC	788-357	Light switching via relay
Extension for EnOcean radio	RS-232/-485 Serial Interface	750-652	Serial interface connects to STC65-RS485 EVC EnOcean Radio Transmitter/Receiver (for 1–64 rocker switches)
	EnOcean Receiver/Transmitter	2852-7101	EnOcean radio signal recording and transmission to the I/O node
	EnOcean Repeater	2852-7102	Extends the transmission range (for more planning information, visit the EnOcean website)
	EnOcean easyfit PTM 250 Radio Transmitter; 2-channel lighting control	758-940/001-000	1–2 or 1–4 signals; range of 30 meters in buildings to the radio receiver
EnOcean easyfit PTM 250 Radio Transmitter; 4-channel lighting control	758-940/003-000		
Extension for external time request	Real-Time Clock Module	750-640	Time synchronization module, if no time server connection is possible
	GPS DCF Converter	2852-7901	Converter/external receiver for time synchronization
Extension for energy data measurement	3-Phase Power Measurement; 690 VAC	750-495/xxx-xxx	Pre-assembled terminal block assemblies for easy connection and short-circuiting of current transformers (current transformers, see Full Line Catalog Volume 4)
	Current and voltage connections	2007-8874, 2007-8877	
Extension for KNX buttons	KNX/EIB/TP1 Interface	753-646	Connects KNX buttons to the I/O node.
Extension for sensors	DALI Multi-Sensor Kit	2851-8201	Brightness measurement and motion sensor: Kit connects to a DALI bus system
	DALI Sensor Coupler	2851-8202	Sensor coupler for connecting MULTI-3-CI sensors to DALI Max. 16 DALI sensor couplers per DALI Multi Master (753-647)
	DALI HIGHBAY ADAPTER + HIGH BAY	2852-7207, 2852-7201	Brightness measurement and motion sensor for large installation heights (3 ... 13 meters)
	DALI HIGHBAY ADAPTER + VISION	2852-7207, 2852-7202	Motion sensor for large areas, open offices, hallways or warehouses
	DALI LS/PD LI	2852-7203	Motion sensor for office lighting (1 ... 5 meters)
	DALI Sensor Coupler HF LS LI + Radar Sensor HF LS LI	2852-7205 2852-7206	Light and recessed ceiling sensor: combined daylight and motion detection, motion detection via radar
	4p4c Connecting Cable, 50 cm	2852-7208	
	DALI XC	2852-7301	Push-button coupler connects 4 conventional push-buttons to DALI
	DALI Sensor Coupler E	2852-7204	Sensor coupler connects standard sensors to DALI

PFC200 Controller

FG2; 2 x ETHERNET; RS-232/-485



Figure: 750-8202



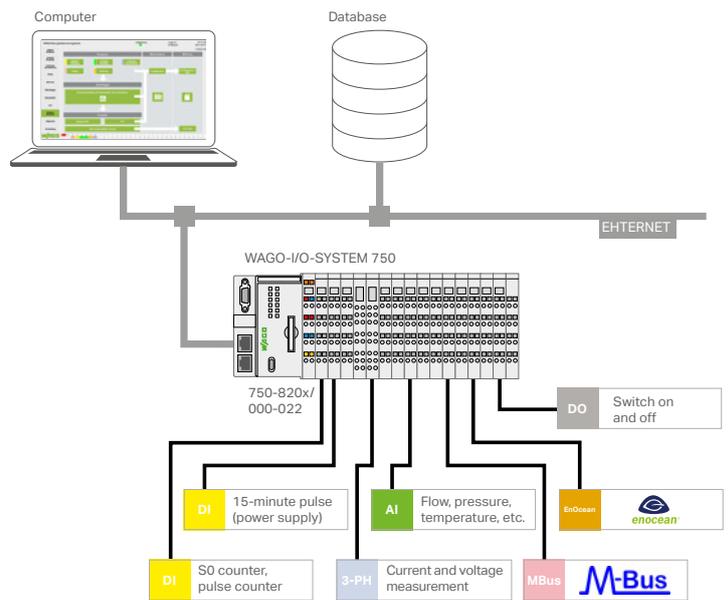
Item Description	PFC200
Version	FG2 2ETH RS
Item No.	750-8202/000-012
Technical Data	
Fieldbus	Modbus TCP
Protocols	DHCP, DNS, NTP, FTP, HTTPS, SNMP, HTTP, HTTPS, SSH, Modbus (TCP, UDP, RTU)
Communication	RS-232/-485 serial interface (switchable)
Visualization	Web-Visu, Webserver
Programming	WAGO-I/O-PRO V2.3 (based on CODESYS V2.3), e!COCKPIT (based on CODESYS V3)
CPU	Cortex A8, 600 MHz
Operating system	Real-time Linux (with RT-Preempt patch)
Main memory (RAM)/internal memory (flash)/non-volatile memory (hardware)	256 MB / 256 MB / 128 KB
Program memory/data memory/non-volatile memory (software)	CODESYS V2: 16 MB / 64 MB / 128 KB e!RUNTIME: 60 MB* / 60 MB* / 128 KB
Number of I/O modules per node (max.)	250
Input and output process image (internal) max.	1000 words
Input and output process image (MODBUS) max.	CODESYS V2: 1000 words e!RUNTIME: 32000 words
Supply voltage (system)	24 VDC (-25 ... +30 %)
Total current for system supply	1700 mA
Ambient temperature (operation)	0 ... +55 °C
Dimensions W x H x D	78.6 x 71.9 x 100 mm
Approvals	CE, UL 508, ANSI/ISA, ATEX/IECEx
Data sheet and further information, see:	wago.com/750-8202/000-012
Accessories	
SD memory card, 2 GB	Item No. 758-879/000-001
WAGO communication cable	750-923

*Program and data memory (dynamically distributed)

e!COCKPIT Software, WAGO-I/O-PRO V2.3
See Full Line Catalog, Volume 3

Mini-WSB Quick Marking System,
see Full Line Catalog, Volume 6

WAGO Energy Data Management



The "WAGO Energy Data Management" system easily records, visualizes and manages energy data without any programming and can be upgraded at any time.

The energy data management system provides energy flow monitoring via user-friendly Web visualization. The connected I/O modules (see table) are automatically detected and can be configured via user interface. In addition to energy-specific values like electrical currents or voltages, the networked WAGO Controller can record other measurement variables relevant for industrial and process technologies or building applications – for example, gas, heat, water, compressed air and temperature.

With the integrated visualization tool, collected data are readily displayed and evaluated in various forms.

The data are transferred to higher level energy management software via Modbus TCP/IP or as a CSV file via FTPS. In addition, it is possible to store history on an SD card integrated in the controller. Because it is so easy to integrate the versatile new WAGO solution into existing systems, increasing measurement point depth is also a simple matter.

WAGO Energy Data Management			
	Components	Item No.	Number of Modules (Max.)
Base unit	Energy Data Management – Controller	750-8202/000-022 or 750-8207/000-022	1
	Energy Data Management – Software	Download: wago.com/ applicationcontroller	1
	End Module	750-600	1
	Power Supply to I/O Node; 230 VAC/24 VDC; 2.5 A	787-1012	1
	Power Supply to I/O Node; 230 VAC/24 VDC; 2 A	787-1606	1
Recording real power pulse EVU	4-Channel Digital Input; 24 VDC; 3 ms	750-402	1
Connection of buttons for starting and stopping the data logging	8-Channel Digital Input/Output; 24 VDC; 0.5 A	750-1506	1
Recording S0 and pulse counter	2 Up/Down Counters; 24 VDC; 16 Bits; 500 Hz	750-638	4
Switching of outputs via MODBUS Master Displaying the logging status	8-Channel Digital Output; 24 VDC; 0.5 A	750-530	1
Three-phase power measurement	3-Phase Power Measurement; 690 VAC 1 A	750-495	Total: 18
	3-Phase Power Measurement; 690 VAC 5 A	750-495/000-001	
	3-Phase Power Measurement; 690 VAC Rogowski Coils	750-495/000-002	
Temperature, pressure, flow meters and other analog signals	2-Channel Analog Input; 0 ... 20 mA; Differential Input	750-452	1
	8-Channel Analog Input; 0/4 ... 20 mA; Single-Ended	750-496	2
	8-Channel Analog Input; 0 ... 10 VDC/±10 V, Single-Ended	750-497	2
Resistance sensors	8-Channel Analog Input; Resistance Measurement; Adjustable	750-451	2
Extension for connecting the M-Bus level converter	M-Bus Master	753-649	1
Extension for connecting the EnOcean gateway	RS-232/-485 Serial Interface	750-652	1
	EnOcean Receiver/Transmitter with RS-485 EVC Interface	2852-7101	1
Components for decentralized measurements	End Module for Bus Extension	750-627	1
	Coupler Module for Bus Extension	750-628	1 ... 10
	System Power Supply; 24 VDC	750-613	1 ... 10
	End Module	750-600	1 ... 10
	Switched-Mode Power Supply; 24 VDC/2.5 A	787-1012	1 ... 10

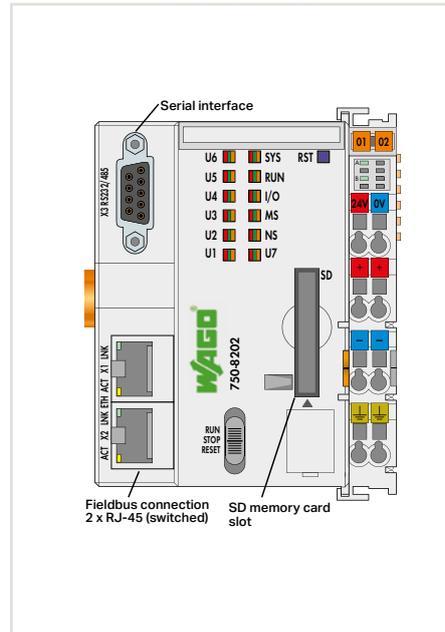
PFC200 Controller



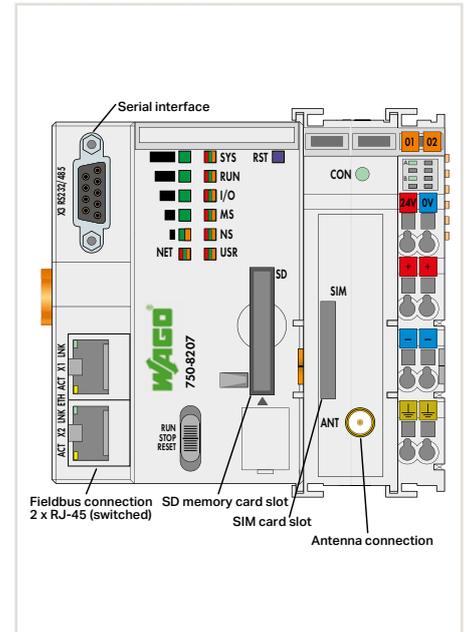
Figure: 750-8202

Figure: 750-8207

Energy Data Management Application;
2 x ETHERNET, RS-232/-485



Energy Data Management Application;
2 x ETHERNET, RS-232/-485;
Mobile Radio Module



Item Description	PFC200
Version	FGE 2ETH RS
Item No.	750-8202/000-022

Item Description	PFC200
Version	FGE 2ETH RS 3G
Item No.	750-8207/000-022

Item Description	PFC200
Version	FGE 2ETH RS 3G
Item No.	750-8207/000-022

Technical Data	
Fieldbus	Modbus TCP
Protocols	DHCP, DNS, NTP, FTP, FTPS, SNMP, HTTP, HTTPS, SSH, Modbus (TCP, UDP, RTU)
Communication	RS-232/-485 serial interface (switchable)
Radio technology	GSM/Edge/UMTS/HSPA+
Frequency band	GSM quad-band
Services	SMS (bidirectional), GPRS connection to Internet
Security encryption	OpenVPN, IPsec, firewall
Visualization	Web-Visu, Webserver
Programming	WAGO-I/O-PRO V2.3 (based on CODESYS V2.3), e!COCKPIT (based on CODESYS V3)
CPU	Cortex A8, 600 MHz
Operating system	Real-time Linux (with RT-Preempt patch)
Main memory (RAM)/internal memory (flash)/non-volatile memory (hardware)	256 MB / 256 MB / 128 KB
Program memory/data memory/non-volatile memory (software)	CODESYS V2: 16 MB / 64 MB / 128 kB e!RUNTIME: 60 MB* / 60 MB* / 128 kB
Number of I/O modules per node (max.)	250
Input and output process image (internal) max.	1000 words
Input and output process image (MODBUS) max.	CODESYS V2: 1000 words e!RUNTIME: 32000 words
Supply voltage (system)	24 VDC (-25 ... +30 %)
Total current (system supply)	1700 mA
Operating temperature	0 ... +55 °C
Dimensions W x H x D	78.6 x 71.9 x 100 mm
Approvals	CE, UL 508, ANSI/ISA, ATEX/IECEX
Data sheet and further information, see:	wago.com/750-8202/000-022

Fieldbus	Modbus/TCP
Protocols	DHCP, DNS, NTP, FTP, FTPS, SNMP, HTTP, HTTPS, SSH, Modbus (TCP, UDP, RTU)
Communication	RS-232/-485 serial interface (switchable)
Radio technology	GSM/Edge/UMTS/HSPA+
Frequency band	GSM quad-band
Services	SMS (bidirectional), GPRS connection to Internet
Security encryption	OpenVPN, IPsec, firewall
Visualization	Web-Visu, Webserver
Programming	WAGO-I/O-PRO V2.3 (based on CODESYS V2.3), e!COCKPIT (based on CODESYS V3)
CPU	Cortex A8, 600 MHz
Operating system	Real-time Linux (with RT-Preempt patch)
Main memory (RAM)/internal memory (flash)/non-volatile memory (hardware)	256 MB / 256 MB / 128 KB
Program memory/data memory/non-volatile memory (software)	CODESYS V2: 16 MB / 64 MB / 128 kB e!RUNTIME: 60 MB* / 60 MB* / 128 kB
Number of I/O modules per node (max.)	250
Input and output process image (internal) max.	1000 words
Input and output process image (MODBUS) max.	CODESYS V2: 1000 words e!RUNTIME: 32000 words
Supply voltage (system)	24 VDC (-25 ... +30 %)
Total current (system supply)	700 mA
Operating temperature	0 ... +55 °C
Dimensions W x H x D	102.5 x 71.9 x 100 mm
Approvals	CE, UL 508**
Data sheet and further information, see:	wago.com/750-8207/000-022

Fieldbus	Modbus/TCP
Protocols	DHCP, DNS, NTP, FTP, FTPS, SNMP, HTTP, HTTPS, SSH, Modbus (TCP, UDP, RTU)
Communication	RS-232/-485 serial interface (switchable)
Radio technology	GSM/Edge/UMTS/HSPA+
Frequency band	GSM quad-band
Services	SMS (bidirectional), GPRS connection to Internet
Security encryption	OpenVPN, IPsec, firewall
Visualization	Web-Visu, Webserver
Programming	WAGO-I/O-PRO V2.3 (based on CODESYS V2.3), e!COCKPIT (based on CODESYS V3)
CPU	Cortex A8, 600 MHz
Operating system	Real-time Linux (with RT-Preempt patch)
Main memory (RAM)/internal memory (flash)/non-volatile memory (hardware)	256 MB / 256 MB / 128 KB
Program memory/data memory/non-volatile memory (software)	CODESYS V2: 16 MB / 64 MB / 128 kB e!RUNTIME: 60 MB* / 60 MB* / 128 kB
Number of I/O modules per node (max.)	250
Input and output process image (internal) max.	1000 words
Input and output process image (MODBUS) max.	CODESYS V2: 1000 words e!RUNTIME: 32000 words
Supply voltage (system)	24 VDC (-25 ... +30 %)
Total current (system supply)	700 mA
Operating temperature	0 ... +55 °C
Dimensions W x H x D	102.5 x 71.9 x 100 mm
Approvals	CE, UL 508**
Data sheet and further information, see:	wago.com/750-8207/000-022

Accessories	SD Memory Card, 2 GB
	WAGO Communication Cable
	Antenna; GSM

Item No.	758-879/000-001
	750-923

Item No.	758-879/000-001
	750-923
	758-965

*Program and data memory (dynamically distributed)

*Program and data memory (dynamically distributed)
**pending

- e!COCKPIT Software, WAGO-I/O-PRO V2.3 See Full Line Catalog, Volume 3
- Mini-WSB Quick Marking System, see Full Line Catalog, Volume 6

WAGO Starter Kits

The WAGO-I/O-SYSTEM will help bring you and your operation quickly up to speed on the latest in automation technology.

To get you up and running quickly, we offer WAGO-I/O-SYSTEM Starter Kits to suit the most diverse applications. Variants include:



e!COCKPIT Starter Kit

The e!COCKPIT Starter Kit with PFC100 Controller is a great introduction to WAGO's innovative CODESYS V3-based engineering software.

Item No.: 8003-099/750-8100



ETHERNET Starter Kit

Scalable automation solutions: from local application to global communication. This starter kit is available in two versions:

With 750-880 ETHERNET Controller:

Item No.: 8003-001/K999-9999/000-1700

With 750-881 ETHERNET Controller:

Item No.: 8003-001/K999-9999/000-1600



BACnet/IP Starter Kit

Starter kit for an easy introduction to building automation based on BACnet/IP

Item No.: 8003-099/750-831



KNX IP Starter Kit

Introduction to open building automation solutions based on KNX

Item No.: 8003-001/K999-9999/000-901

Starter Kit; e!COCKPIT with PFC100 Controller; 2 x ETHERNET; ECO



The PFC100 can be seamlessly integrated into WAGO's e!COCKPIT Engineering Software, which can be used for hardware configurations, programming, simulations and visualization of complex control tasks.

Tightly integrated automation software and controller hardware provide the ideal platform for advanced and intuitive CODESYS V3-based engineering.

Item Description	Item No.
Starter Kit; e!COCKPIT	8003-099/750-8100
The e!COCKPIT Starter Kit includes:	
PFC100 Controller; 2 x ETHERNET; ECO	750-8100
Supply Module; 24 VDC	750-602
2-Channel Digital Input; 24 VDC; 3 ms	750-400
2-Channel Digital Output; 24 VDC; 0.5 A	750-501
End Module	750-600
EPSITRON® CLASSIC POWER; 24 VDC Output Voltage; 1A	787-1602
Switching Module; 2-Way DI Simulator	288-863
e!COCKPIT Development Environment; License for 1 PC	2759-0101/1111-5000
USB Communication Cable; 2.5 m	750-923
microSD Memory Card; 2 Gbytes	758-879/000-3102
Operating Tool; Type 1; (3.5 x 0.5) mm Blade	210-720
Operating Tool; Type 1; (2.5 x 0.4) mm Blade	210-719
Patch Cable; 1.0 m	

Starter Kit; ETHERNET 880 with ETHERNET Controller; 3rd Generation; SD Card Slot



This ETHERNET Starter Kit includes: 750-880 Controller, 2-channel input module and 2-channel output module. A power supply and the required programming software are also included in the scope of delivery. An application program designed for the starter kit and written in IEC 61131 demonstrates both hardware and software possibilities.

Item Description	Item No.
Starter Kit; ETHERNET 880	8003-001/K999-9999/000-1700

The ETHERNET Starter Kit includes:

ETHERNET Controller; 3rd Generation; SD Card Slot	750-880
2-Channel Digital Input; 24 VDC; 3 ms	750-400
2-Channel Digital Output; 24 VDC; 0.5 A	750-501
End Module	750-600
EPSITRON® CLASSIC POWER; 24 VDC Output Voltage; 1A	787-1602
Switching Module; 2-Way DI Simulator	288-863
Development Environment, incl. USB Communication Cable; WAGO-I/O-PRO; USB Kit	759-333/000-923
SD Memory Card; 1GB	758-879/000-001
Patch Cable; 1 m	110-8006
Operating Tool; Type 1; (3.5 x 0.5) mm Blade	210-720

Starter Kit; ETHERNET 881 with ETHERNET Controller; 3rd Generation



This ETHERNET Starter Kit includes: 750-881 Controller, 2-channel input module and 2-channel output module. A power supply and the required programming software are also included in the scope of delivery. An application program designed for the starter kit and written in IEC 61131 clearly shows both hardware and software possibilities.

Item Description	Item No.
Starter Kit; ETHERNET 881	8003-001/K999-9999/000-1600
The ETHERNET Starter Kit includes:	
ETHERNET Controller; 3rd Generation	750-881
2-Channel Digital Input; 24 VDC; 3 ms	750-400
2-Channel Digital Output; 24 VDC; 0.5 A	750-501
End Module	750-600
EPSITRON® CLASSIC POWER; 24 VDC Output Voltage; 1A	787-1602
Switching Module; 2-Way DI Simulator	288-863
Development Environment, incl. USB Communication Cable; WAGO-I/O-PRO; USB Kit	759-333/000-923
SD Memory Card; 1GB	758-879/000-001
Patch Cable; 1 m	110-8006
Operating Tool; Type 1; (3.5 x 0.5) mm Blade	210-720

Starter Kit; BACnet/IP with BACnet/IP Controller; ECO



The BACnet/IP Starter Kit is perfect for everyone seeking flexibility. Whether for rooms, lighting control systems or HVAC systems, the high-performance BACnet/IP ECO Controller is always the right choice for building automation applications.

Advantages of the BACnet/IP ECO Controller:

- This controller supports the device profile of a BACnet Building Controller (B-BC) with all major BACnet objects and interoperability building blocks (BIBBs).
- With 256 BACnet objects, the BACnet/IP ECO Controller is an economical alternative for building automation applications requiring a small number of BACnet objects.
- This permits smaller building automation control tasks to be implemented much more cost-effectively.

Item Description	Item No.
Starter Kit; BACnet/IP	8003-099/750-831
The BACnet/IP Starter Kit includes:	
BACnet/IP Controller; ECO	750-831/000-002
2-Channel Digital Input; 24 VDC; 3 ms	750-400
2-Channel Digital Output; 24 VDC; 0.5 A	750-501
End Module	750-600
EPSITRON® CLASSIC POWER; 24 VDC Output Voltage; 1A	787-1602
Switching Module; 2-Way DI Simulator	288-863
Development Environment, incl. USB Communication Cable; WAGO-I/O-PRO; USB Kit	759-333/000-923
Operating Tool; Type 1; (3.5 x 0.5) mm Blade	210-720
Patch Cable; 1.0 m	

Starter Kit; KNX IP with KNX IP Controller



The WAGO KNX IP Starter Kit is available for those new to KNX IP. This starter kit is particularly well-suited to users seeking to:

- expand existing KNX/EIB networks with the KNX/EIB/TP1 interface to include the functionality of the modular WAGO-I/O-SYSTEM and program applications themselves (IEC 61131-3),
- have remote access to their KNX/EIB/TP1 network with the router,
- exploit the advantages of an ETHERNET network with KNX/EIB projects with the IP controller.

Item Description	Item No.
Starter Kit; KNX IP	8003-001/K999-9999/000-901

The KNX IP Starter Kit includes:

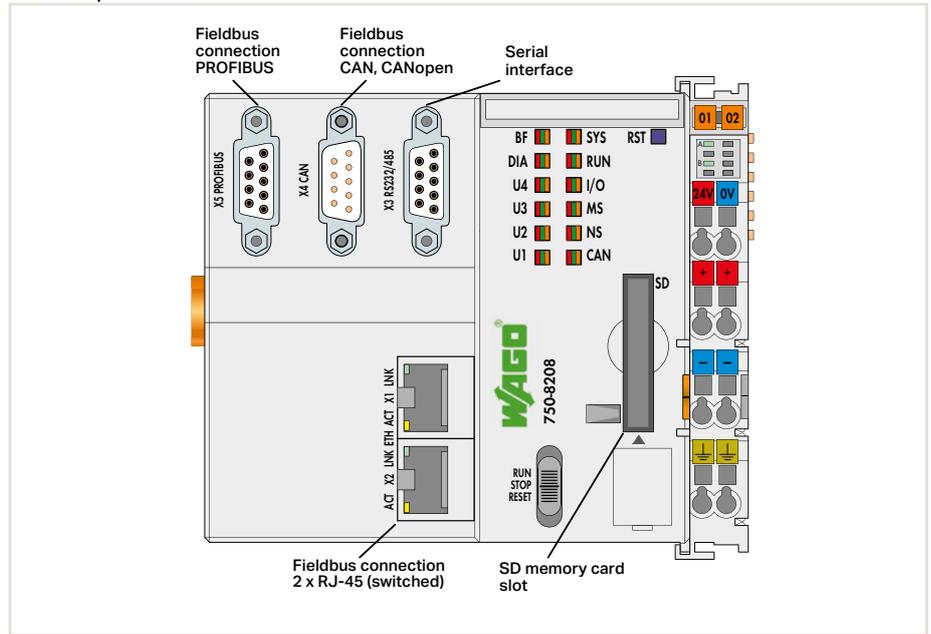
KNX IP controller	750-889
4-Channel Digital Input; 24 VDC; 3 ms	750-402
4-Channel Digital Output; 24 VDC; 0.5 A	750-504
End Module	750-600
KNX/EIB/TP1 Interface	753-646
Switched-Mode Power Supply; 24 VDC Output Voltage; 1.3 A	787-602
Development Environment, incl. USB Communication Cable; WAGO-I/O-PRO; USB Kit	759-333/000-923
Patch Cable; Cross-Over	

Controller PFC200

2 x ETHERNET; RS-232/-485; CAN; CANopen; PROFIBUS master; telecontrol; ext. temperature



Figure: 750-8208



Item description	PFC200
Version	2ETH RS CAN DPM Tele T
Item no.	750-8208/025-001

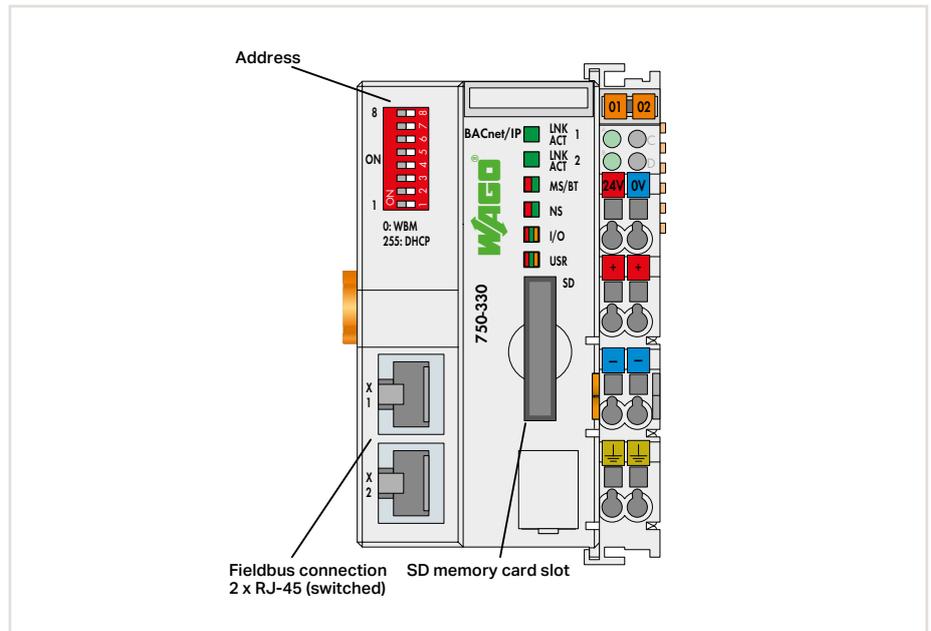
Technical Data	
Fieldbus	PROFIBUS-DP Master, CAN, CANopen, Modbus/TCP
Protocols	DHCP, DNS, NTP, FTP, HTTPS, SNMP, HTTP, HTTPS, SSH, Modbus (TCP, UDP, RTU) IEC60870-5-101/-103/-104, IEC61850-7-4, IEC61400-25, DNP3
Communication	RS-232/-485 serial interface (switchable)
Visualization	Web Visu, Webserver
Programming	WAGO-I/O-PRO V2.3 (based on CODESYS V2.3)
CPU	Cortex A8, 600 MHz
Operating system	Real-time Linux (with RT-Preempt patch)
Main memory (RAM) / internal memory (flash) / non-volatile memory (hardware)	256 MB / 256 MB / 128 kB
Program memory / data memory / non-volatile memory (software)	16 MB / 64 MB / 128 kB
Number of I/O modules per node max.	250
Input and output process image (internal) (max.)	1000 words
Input and output process image (MODBUS)/(PROFIBUS)/(CAN) max.	1000 words / 5000 bytes* / 2000 words
System supply voltage	24 VDC (-25 ... +30 %)
Total current for system supply	1700 mA
Ambient temperature (operation)	-20 ... +60 °C
Dimensions (W x H x D) (mm)	112 x 71.9 x 100 mm
Approvals	CE, UL 508**
Data sheet and further information, see:	wago.com/750-8208/025-001

Accessories	Item no.	
SD memory card, 2 GB	758-879/000-001	see Full Line Catalog, Volume 3

*Input and output process image (PROFIBUS) max.: 5000 bytes (a maximum 125 slaves are supported, because a slave's process image can have up to 244 bytes/244 bytes)
**pending

- Mini-WSB Quick Marking System, see Full Line Catalog, Volume 6
- DIN rails and tool see Full Line Catalog, Volume 3

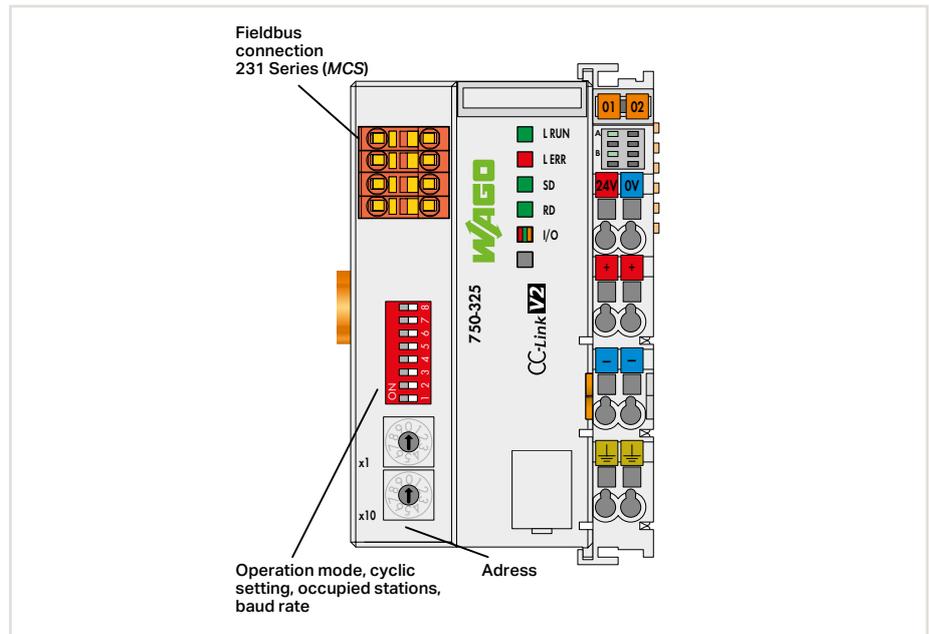
BACnet/IP Fieldbus Coupler



Item Description	FC BACnet/IP	
Item No.	750-330	
Technical Data		
Fieldbus	BACnet/IP, Modbus/TCP	
Protocols	BACnet/IP, Modbus/TCP (UDP), HTTPS, BootP, DHCP, DNS, FTP, SNMP	
Connection technology: Fieldbus input/output	2 x RJ-45	
Transmission medium	Twisted Pair S-UTP 100 Ω, Cat 5; Max. line length: 100 m	
Baud rate	10/100 Mbit/s	
Transmission performance	Class D acc. to EN 50173	
Speicherkartentyp	SD and SDHC to 32 GB*	
BACnet device profile	B-BC (BACnet Building Controller)	
BACnet revision	1.12	
Number of I/O modules per node max.	99	
System supply voltage	24 VDC (-25 ... +30 %)	
Input current typ. at rated load (24 V)	500 mA	
Current consumption, system supply	450 mA	
Total current for system supply	1700 mA	
Ambient temperature (operation)	0 ... +55 °C	
Dimensions W x H x D	61.5 x 71.9 x 100 mm	
Approvals	CE	
Data sheet and further information, see:	wago.com/750-330	
Accessories		
SD memory card, 2 GB	Item no. 758-879/000-001	see Full Line Catalog, Volume 3
BACnet Configurator	Download: www.wago.com	

*All guaranteed properties only valid with the WAGO memory card listed as an accessory.

CC-Link Fieldbus Coupler; 156 kBaud ... 10 Mbaud

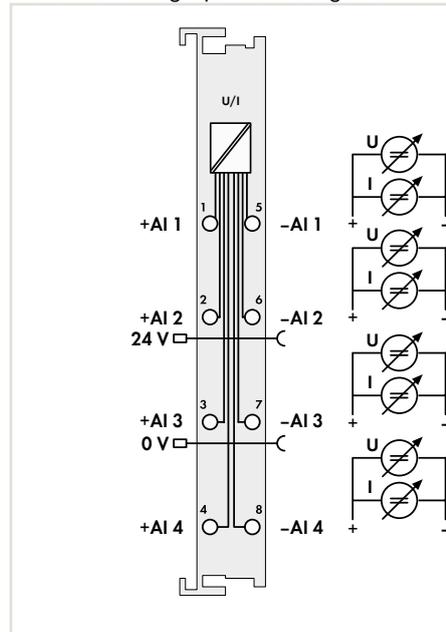


Item Description	FC CC-Link
Item No.	750-325
Technical Data	
Fieldbus	CC-Link
Connection technology: Fieldbus input/output	MCS connector included
Number of fieldbus nodes on master max.	64
Baud rate	156 kBd ... 10 MBd
Transmission medium	Shielded Cu cable 2 / 3 x 0.5 mm ²
Number of I/O modules per node max.	64
Operation mode	CC-Link V2.0 (default setting)/V1.1
Occupied Stations	1 ... 4 / 4 (default setting)
Extended cyclic setting	1, 2, 4 (default setting), 8 cycles
Input process image (internal) max.	RX (digital inputs): V1.1: 16, 48, 80, 112 bits; V2.0: 16, 48, 80, 112 bits (1 cycle); V2.0: 16, 80, 144, 208 bits (2 cycles); V2.0: 48, 176, 304, 432 bits (4 cycles); V2.0: 112, 368, 624, 880 bits (8 cycles) and per 16-bit system area; RWr (analog inputs): V1.1: 4, 8, 12, 16 words (16 bit); V2.0: 4, 8, 12, 16 words (1 cycle); V2.0: 8, 16, 24, 32 words (2 cycles); V2.0: 16, 32, 48, 64 words (4 cycles); V2.0: 32, 64, 96, 128 words (8 cycles)
Output process image (internal) max.	RY (digital outputs): V1.1: 16, 48, 80, 112 bits; V2.0: 16, 48, 80, 112 bits (1 cycle); V2.0: 16, 80, 144, 208 bits (2 cycles); V2.0: 48, 176, 304, 432 bits (4 cycles); V2.0: 112, 368, 624, 880 bits (8 cycles) and per 16-bit system area; RWw (analog outputs): V1.1: 4, 8, 12, 16 words (16 bit); V2.0: 4, 8, 12, 16 words (1 cycle); V2.0: 8, 16, 24, 32 words (2 cycles); V2.0: 16, 32, 48, 64 words (4 cycles); V2.0: 32, 64, 96, 128 words (8 cycles)
System supply voltage	24 VDC (-25 ... +30 %)
Input current typ. at rated load (24 V)	500 mA
Current consumption, system supply	200 mA
Total current for system supply	1800 mA
Ambient temperature (operation)	0 ... +55 °C
Dimensions W x H x D	61.5 x 71.9 x 100 mm
Approvals	CE
Data sheet and further information, see:	wago.com/750-325

Analog Input; for Voltage/Current



4-channel analog input; for voltage/current



Item Description	4AI
Version	U/I Diff. Galv.
Item No.	750-471

Expected availability: Juni 2018

Technical Data	
Number of analog inputs	4 (electrically isolated)
Signal type	Voltages and currents (channel-wise parameterizable)
Signal characteristic	Differential
Measurement range	0 ... 20 mA; 4 ... 20 mA; 3.6 ... 21 mA NE43; ± 20 mA 0 ... 10 V; ± 10 V; ± 200 mV
Sensor connection	2 conductors
Input impedance	AI (U) > 100 k Ω ; AI (I) < 130 Ω (typ. 113 Ω)
Resolution	16 bits
Conversion time	≤ 5 ms
Measuring error (25 °C)	$\leq \pm 0.1$ % of the upper-range value $\leq \pm 0.2$ % at ± 200 mV
Temperature error	$\leq \pm 0.01$ %/K of the upper-range value
Supply voltage (system)	5 VDC; via data contacts
Current consumption (system supply)	100 mA
Data width	4 x 16-bit data; 4 x 8-bit control/status (optional)
Isolation	2 kV channel/channel; 2 kV system/field
Operating temperature	0 ... +55 °C
Dimensions W x H x D	12 x 67.8 x 100 mm
Approvals	CE, Marine*, UL 61010*, ATEX/IECEx*
Data sheet and further information, see:	wago.com/750-471

*pending

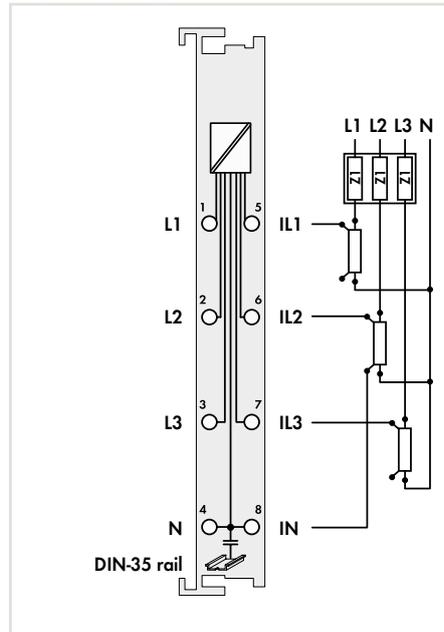
 Mini-WSB Quick Marking System,
see Full Line Catalog, Volume 6

 DIN rails and tool
see Full Line Catalog, Volume 3

Power Measurement

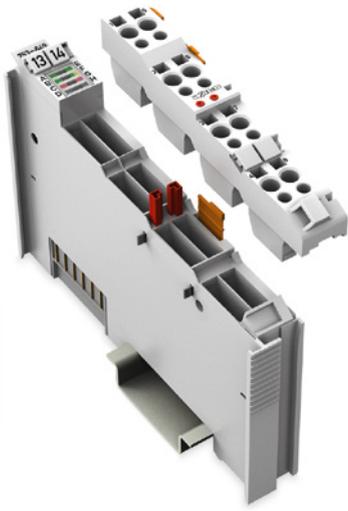


Power measurement; 277 VAC/DC;
external shunts

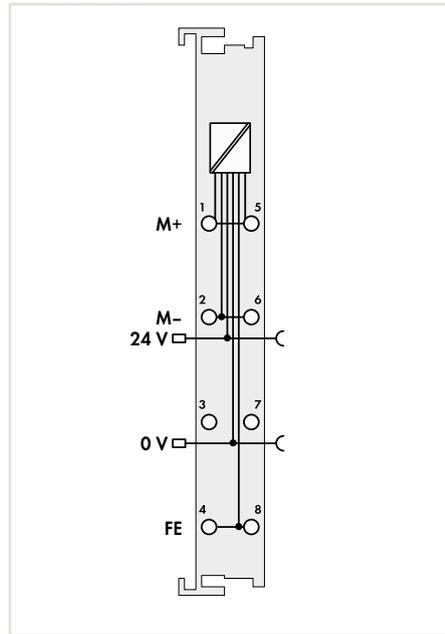


Item Description	POM
Version	277VAC/DC Shunt
Item No.	750-494/000-005
Technical Data	
Signal type	Power Measurement
Measured variables	Line-to-line voltage, power output, energy, power factors, mains frequency, harmonic analysis (up to the 41st harmonic), THD
Number of measurement inputs	6 (3 voltage measurement inputs*; 3 current measurement inputs*); *Only 2 voltage/current measurement inputs can be used for DC measurement!
Rated voltage	ULN = 277 VAC/VDC, ULL = 480 VAC
Input resistance voltage path (typ.)	1072 kΩ
Measuring current (max.)	1 ... 20,000 A via ext. shunts (DIN 43703, DIN EN 60051 (50 ... 300 mV)
Input resistance, current path (typ.)	Approx. 15 kΩ
Resolution	24 bits
Measuring error for current and voltage	AC: 0.5 % (max.); DC: 1.0 % (of the upper-range value)
Frequency range, mains frequency	45 ... 65 Hz
Frequency range, harmonics analysis	0 ... 3300 Hz
Limit frequency	15.9 kHz
Supply voltage (system)	5 VDC via data contacts
Current consumption (system supply)	100 mA
Data width	2 x 128-bit data; 2 x 64-bit control/status
Isolation	4 kV system/field
Ambient temperature (operation)	0 ... +55 °C
Dimensions W x H x D	12 x 67.8 x 100 mm
Approvals	CE, Marine
Data sheet and further information, see:	wago.com/750-494/000-005

M-Bus Master



M-Bus Master



Item Description	M-Bus Master
Item No.	753-649
Technical Data	
Transmission channels	1, bidirectional
Baud rate	up to 1000 m at 9600 baud; up to 2000 m at 2400 baud; up to 6000 m at 300 baud
M-Bus loads (max.)	40 pcs (1.5 mA each)
Topology	Star, tree and line topology
Supply voltage (field)	24 VDC (-2.5 ... +5 %); via power jumper contacts
Current consumption, field supply (module with no external load)	130 mA
Supply voltage (system)	5 VDC via data contacts
Current consumption (system supply)	29 mA
Isolation	500 V system/field
Cable type	2-line, shielded or unshielded
Data width	24 bytes (mailbox 2.0 with 22-byte length)
Startup and configuration	WAGO-I/O-PRO V2.3, e!COCKPIT
Approvals	CE
Data sheet and further information, see:	wago.com/753-649
Accessories	
Pluggable connector	(included)
Coding keys	(included)

Mini-WSB Quick Marking System, see Full Line Catalog, Volume 6

DIN rails and tool see Full Line Catalog, Volume 3

SMI Master Module

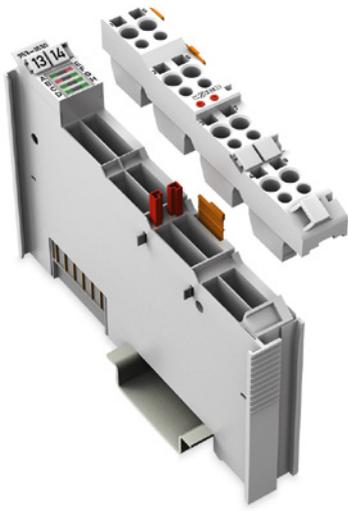
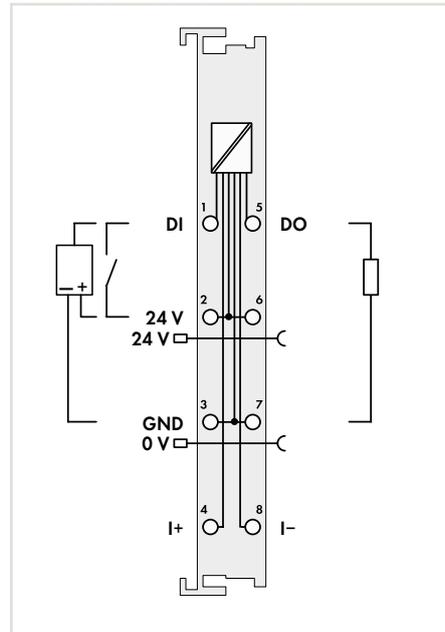
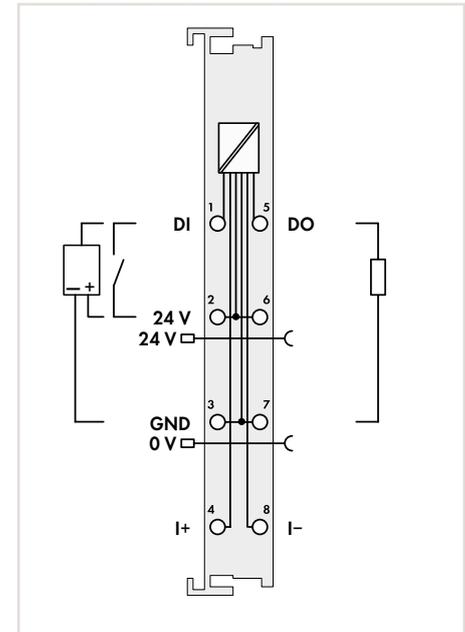


Figure: 753-1630

SMI Master Module; 230 VAC



SMI Master LoVo; 24 VDC



Item Description
Version
Item No.

SMI Master
230 VAC
753-1630

SMI Master LoVo
24 VDC
753-1631

Technical Data	
Number of channels	1 x SMI (1 ... 16 SMI slaves per channel)
Interface specification	SMI Master Interface per SMI specification
Number of digital inputs	1
Input characteristic	Type 1
Input voltage (max.)	31.2 VDC
Number of digital outputs	1
Output current per channel	0.5 ADC, short-circuit protected
Supply voltage (field)	24 VDC (-25 ... +30 %), via power jumper contacts
Current consumption, field supply (module with no external load)	11.8 mA
Supply voltage (system)	5 VDC via data contacts
Current consumption (system supply)	33 ... 42 mA
Isolation	3 kVAC RMS, 4 kV surge (system/SMI); 1.5 kVAC RMS, 2.5 kV surge (system/field)
Cable type	2-line, unshielded
Cable length	350 m
Data width	12-byte data
Startup and configuration	Via WAGO SMI Configurator or IEC libraries
Approvals	CE
Data sheet and further information, see:	wago.com/753-1630

Number of channels	1 x SMI (1 ... 16 SMI slaves per channel)
Interface specification	SMI Master Interface per SMI specification
Number of digital inputs	1
Input characteristic	Type 1
Input voltage (max.)	31.2 VDC
Number of digital outputs	1
Output current per channel	0.5 ADC, short-circuit protected
Supply voltage (field)	24 VDC (-25 ... +30 %), via power jumper contacts
Current consumption, field supply (module with no external load)	11.8 mA
Supply voltage (system)	5 VDC via data contacts
Current consumption (system supply)	33 ... 42 mA
Isolation	3 kVAC RMS, 4 kV surge (system/SMI); 1.5 kVAC RMS, 2.5 kV surge (system/field)
Cable type	2-line, unshielded
Cable length	350 m
Data width	12-byte data
Startup and configuration	Via WAGO SMI Configurator or IEC libraries
Approvals	CE
Data sheet and further information, see:	wago.com/753-1630

Number of channels	1 x SMI (1 ... 16 SMI slaves per channel)
Interface specification	SMI Master Interface per SMI specification
Number of digital inputs	1
Input characteristic	Type 1
Input voltage (max.)	31.2 VDC
Number of digital outputs	1
Output current per channel	0.5 ADC, short-circuit protected
Supply voltage (field)	24 VDC (-25 ... +30 %), via power jumper contacts
Current consumption, field supply (module with no external load)	11.8 mA
Supply voltage (system)	5 VDC via data contacts
Current consumption (system supply)	33 ... 42 mA
Isolation	3 kVAC RMS, 4 kV surge (system/SMI); 1.5 kVAC RMS, 2.5 kV surge (system/field)
Cable type	2-line, unshielded
Cable length	350 m
Data width	12-byte data
Startup and configuration	Via WAGO SMI Configurator or IEC libraries
Approvals	CE
Data sheet and further information, see:	wago.com/753-1631

Accessories	
Pluggable connector	(included)
Coding keys	(included)

Accessories	
Item No.	(included)
	(included)

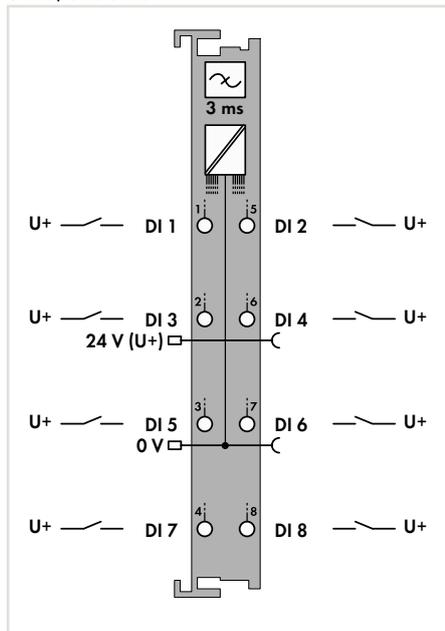
Accessories	
Item No.	(included)
	(included)

Digital Input; 24 VDC

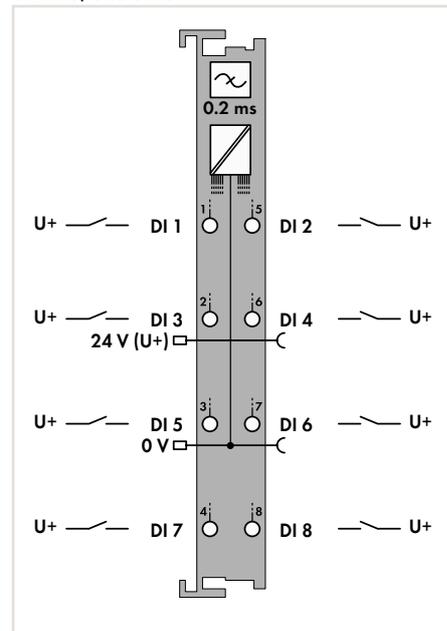


Figure: 750-430/040-000

8-channel digital input; 24 VDC;
3 ms; extreme



8-channel digital input; 24 VDC;
0.2 ms; extreme



Item Description
Version
Item No.

8DI
24 VDC 3 ms XTR
750-430/040-000

8DI
24 VDC 0.2ms XTR
750-431/040-000

Technical Data	
Number of digital inputs	8
Signal type	24 VDC
Voltage range for signal (0)	-3 ... +5 VDC
Voltage range for signal (1)	15 ... 30 VDC
Sensor connection	1 conductor
Input characteristic	High-side switching
Input filter (digital)	3 ms
Input current per channel for signal (1) typ.	2.8 mA
Supply voltage (sensor)	24 VDC
Supply voltage (field)	24 VDC (-25 ... +30 %) Specified values for ambient temperatures under laboratory conditions +15 ... +35 °C. 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 (system supply)	17 mA
Rated surge voltage	1 kV
Data width (internal)	8 bits
Operating temperature	-40 ... +70 °C
Dimensions W x H x D	12 x 67.8 x 100 mm
Approvals	CE
Data sheet and further information, see:	wago.com/750-430/040-000

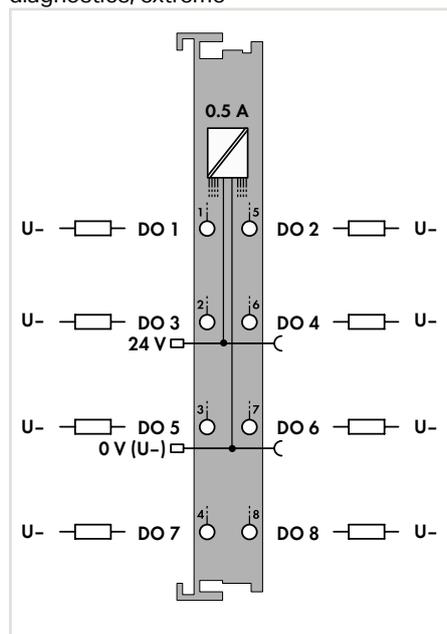
8DI
24 VDC 0.2ms XTR
750-431/040-000
8
24 VDC
-3 ... +5 VDC
15 ... 30 VDC
1 conductor
High-side switching
0.2 ms
2.8 mA
24 VDC
24 VDC (-25 ... +30 %) Specified values for ambient temperatures under laboratory conditions +15 ... +35 °C. For -40 ... +55 °C: 24 V (-25 ... +20 %) For +55 ... +70 °C: 24 V (-25 ... +10 %) Lower limit in all temperature ranges: -27.5 % (including 15 % residual ripple)
17 mA
1 kV
8 bits
-40 ... +70 °C
12 x 67.8 x 100 mm
CE
wago.com/750-431/040-000

8
24 VDC
-3 ... +5 VDC
15 ... 30 VDC
1 conductor
High-side switching
0.2 ms
2.8 mA
24 VDC
24 VDC (-25 ... +30 %) Specified values for ambient temperatures under laboratory conditions +15 ... +35 °C. 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)
17 mA
1 kV
8 bits
-40 ... +70 °C
12 x 67.8 x 100 mm
CE
wago.com/750-431/040-000

Digital Output; 24 VDC



8-channel digital output; 24 VDC; 0.5 A;
diagnostics; extreme

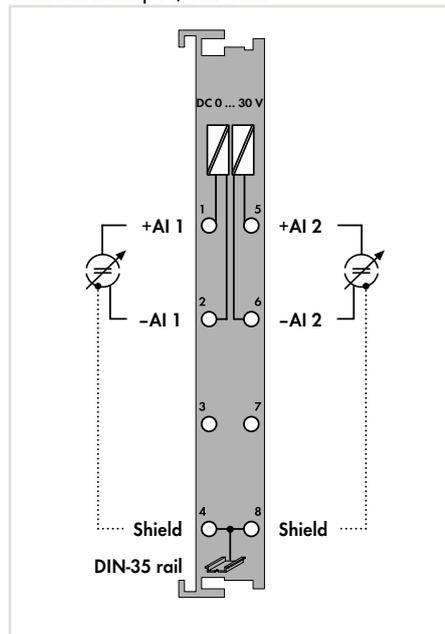


Item Description	8DO
Version	24 VDC 0.5A Diagn XTR
Item No.	750-537/040-000
Technical Data	
Number of digital outputs	8
Signal type	24 VDC
Output characteristic	High-side switching
Output current per channel	0.5 A; short-circuit-protected
Load type	Resistive; inductive; lamps
Actuator connection	1 conductor
Switching frequency (max.)	1 kHz
Diagnostics	Open circuit; overload; short circuit
Supply voltage (field)	24 VDC (-25 ... +30 %) Specified values for ambient temperatures under laboratory conditions +15 ... +35 °C. 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 (system supply)	50 mA
Rated surge voltage	1 kV
Data width (internal)	8-Bit In; 8-Bit Out
Operating temperature	-40 ... +70 °C
Dimensions W x H x D	12 x 67.8 x 100 mm
Approvals	CE
Data sheet and further information, see:	wago.com/750-537/040-000

Analog Input; 0 ... 30 VDC



2-channel analog input; 0 ... 30 VDC;
differential input; extreme



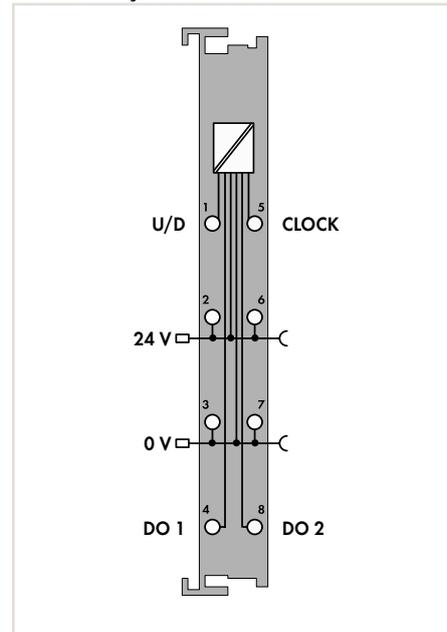
Item Description	2AI
Version	0-30 VDC Diff XTR
Item No.	750-483/040-000

Technical Data	
Extended functionality	Time-synchronized measured value acquisition within the module
Number of analog inputs	2
Signal type	0 ... 30 V
Signal characteristic	Differential
Resolution	14 bits
Conversion time	1 ms
Internal resistance	1 MΩ
Measuring error (25 °C)	< ±0.1 % of largest measurement range
Temperature coefficient	< ± 0.01 % / K of the largest measurement range
Supply voltage (system)	5 VDC; via data contacts
Current consumption (system supply)	80 mA
Data width	2 x 16-bit data; 2 x 8-bit control/status (optional)
Rated surge voltage	1 kV
Operating temperature	-40 ... +70 °C
Dimensions W x H x D	12 x 67.8 x 100 mm
Approvals	CE
Data sheet and further information, see:	wago.com/750-483/040-000

Counter Module



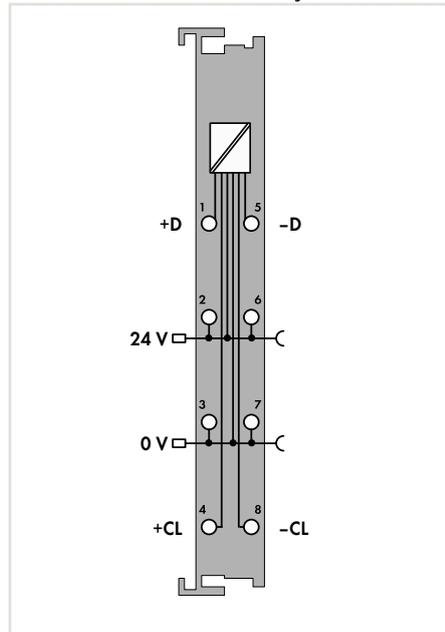
Counter; adjustable; extreme



Item Description	Counter
Version	Adjust XTR
Item No.	750-404/040-000
Technical Data	
Number of outputs	2
Number of counters	1
Voltage range for signal (0)	-3 ... +5 VDC
Voltage range for signal (1)	15 ... 30 VDC
Output current	0.5 A; short-circuit-protected
Switching frequency (max.)	100 kHz
Pulse width (min.)	10 µs
Input current (typ.)	7 mA
Counter depth	32 bits
Supply voltage (field)	24 VDC (-25 ... +30 %) Specified values for ambient temperatures under laboratory conditions +15 ... +35 °C. 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 (system supply)	70 mA
Rated surge voltage	1 kV
Data width (internal)	32-bit data; 8-bit control/status
Operating modes	Up/down counter/100 kHz; Up counter/enable input; Peak-time counter; Frequency measurement: 0.1 Hz ... 100 kHz*; Up/down counter/signal outputs (DO); Two up counters/16 bits/5 kHz *Default setting
Operating temperature	-40 ... +70 °C
Dimensions W x H x D	12 x 67.8 x 100 mm
Approvals	CE
Data sheet and further information, see:	wago.com/750-404/040-000

SSI Transmitter Interface

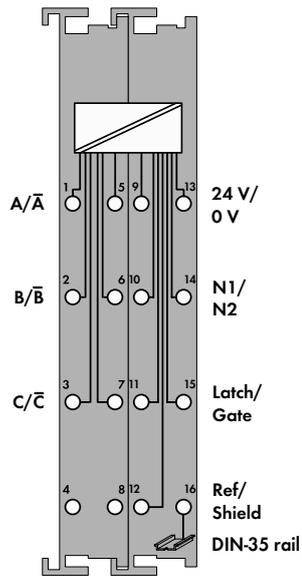
SSI transmitter interface; adjustable; extreme



Item Description	SSI Interface
Version	Adjust XTR
Item No.	750-630/040-001
Technical Data	
Transmitter connection	On + D; - D / Off + Cl; - Cl
Transmitter supply	24 VDC; via power jumper contacts
Baud rate	62.5 ... 250 kHz
Serial input	Data width: 1 ... 32 bits
Signal output	Differential signal (RS-422)
Signal input	Differential signal (RS-422)
Code	Gray code/binary code
Supply voltage (field)	24 VDC (-25 ... +30 %) Specified values for ambient temperatures under laboratory conditions +15 ... +35 °C. 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 (system supply)	20 mA
Data width (internal)	1 x 32-bit; 1 x 8-bit control/status (optional) (24-bit data, 8 bits reserved)
Rated surge voltage	1 kV
Operating temperature	-40 ... +70 °C
Dimensions W x H x D	12 x 67.8 x 100 mm
Approvals	CE
Data sheet and further information, see:	wago.com/750-630/040-001

Incremental Encoder Interface

Incremental encoder interface; 24 VDC;
differential input; 32 bits; extreme

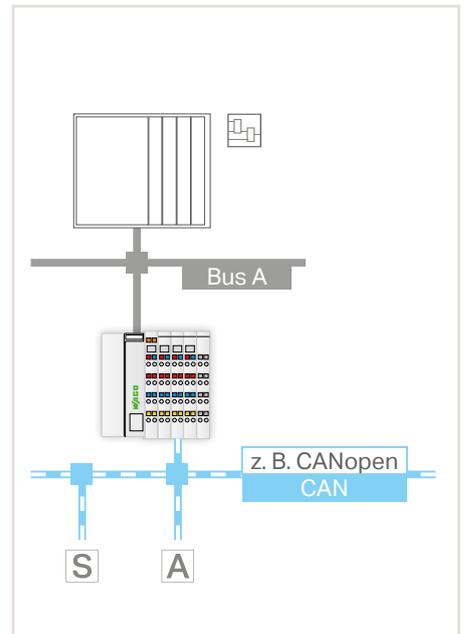
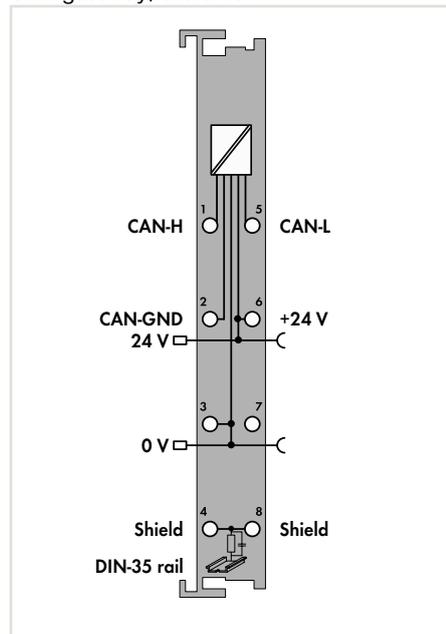


Item Description	Inc. Encoder
Version	24 VDC Diff 32Bit XTR
Item No.	750-637/040-001
Technical Data	
Transmitter connection	A; /A; B; /B; C; /C (differential inputs)
Counter Module	32 bits, binary
Limit frequency	250 kHz
Quadrature decoder	4x evaluation
Zero impulse latch	32 bits
Commands	Reading; setting; activating
Current consumption (typ.)	35 mA; without transmitter
Output voltage	24 VDC
Output current (max.)	0.5 A; short-circuit-protected
Voltage range for signal (0)	-3 ... +5 VDC
Voltage range for signal (1)	15 ... 30 VDC
Input current (typ.)	Latch 7 mA; gate 7 mA; ref. 7 mA
Current consumption (system supply)	110 mA
Data width (internal)	1 x 32-bit data; 2 x 8-bit control/status
Rated surge voltage	1 kV
Operating temperature	-40 ... +70 °C
Dimensions W x H x D	24 x 67.8 x 100 mm
Approvals	CE
Data sheet and further information, see:	wago.com/750-637/040-001

CAN Gateway



CAN gateway; extreme



Item Description	CAN Gateway XTR
Item No.	750-658/040-000
Technical Data	
Number of CAN interfaces	1
Baud rate	10 kbit/s; 20 kbit/s; 50 kbit/s; 125 kbit/s; 250 kbit/s; 500 kbit/s; 800 kbit/s; 1 Mbit/s (automatic baud rate)
Data formats	Per 2.0 A standard (11-bit ID); Per 2.0 B extended (29-bit ID)
Operating modes	Sniffer mode; transparent mode; Mapped mode
Supply voltage (system)	24 VDC; via power jumper contacts
Current consumption (system supply)	50 mA
Current consumption (field supply) (module with no external load)	15 mA
Data transfer time	5 ms (at 32-bit I/O)
Data width (internal)	8; 12; 16; 20; 24; 32; 40; 48 bytes configurable; including 1 control/status byte
Rated surge voltage	1 kV
Operating temperature	-40 ... +70 °C
Dimensions W x H x D	12 x 67.8 x 100 mm
Approvals	CE
Data sheet and further information, see:	wago.com/750-658/040-000

The CAN Gateway allows a CAN bus to be installed as a sub-bus beneath a fieldbus coupler or fieldbus controller. It enables special sensors/actuators that are only available with the widely spread CAN bus to also be integrated under other bus systems. Function blocks allow the gateway to read and write higher-protocol telegrams (e.g., CANopen).

The module offers three different operating modes:

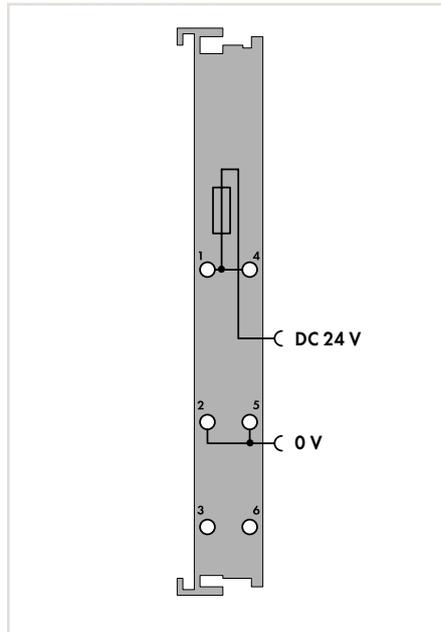
- Sniffer mode: Detailed analysis of the CAN bus through passive "snooping"
- Transparent mode: Active CAN subscriber that can send and receive any type of CAN telegram
- Mapped mode: Enables direct generation of CAN telegrams from the process image, or selective copying of process values from received CAN telegrams into the input process image (cyclic or event-based)

Supply Module; 24 VDC

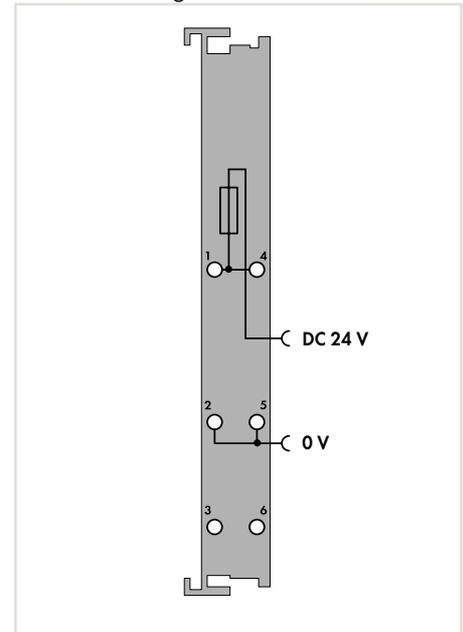


Figure: 750-601/040-000

Supply module; 24 VDC;
fuse holder; extreme



Supply module; 24 VDC;
fuse holder; diagnostics; extreme



Item Description	Power Supply	Power Supply
Version	24 VDC Fuse XTR	24 VDC Fuse Diagn XTR
Item No.	750-601/040-000	750-610/040-000
Technical Data		
Supply voltage (field)	24 VDC (-25 ... +30 %) Specified values for ambient temperatures under laboratory conditions +15 ... +35 °C. 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)	24 VDC (-25 ... +30 %) Specified values for ambient temperatures under laboratory conditions +15 ... +35 °C. 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 carrying capacity (power jumper contacts)	6.3 A	6.3 A
Fuse	5 x 20; T max. 6.3 A (not included)	5 x 20; T max. 6.3 A (not included)
Diagnostics		Supply voltage (field): Detection "on" at > 15 VDC; Detection "off" at < 5 VDC
Current consumption (system supply)		5 mA
Data width (internal)		2 bits (1 bit current monitoring; 1 bit fuse fault)
Rated surge voltage	1 kV	1 kV
Operating temperature	-40 ... +70 °C	-40 ... +70 °C
Dimensions W x H x D	12 x 67.8 x 100 mm	12 x 67.8 x 100 mm
Approvals	CE	CE
Data sheet and further information, see:	wago.com/750-601/040-000	wago.com/750-610/040-000

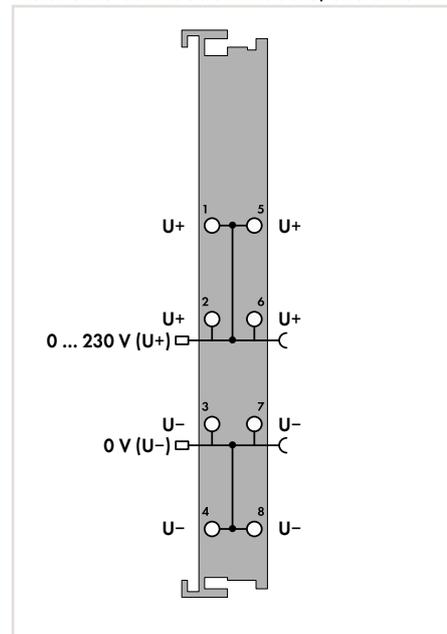
This I/O module is used to provide the applied supply voltage, protected by fuse, to the field devices connected to the downstream I/O modules. A blown fuse is indicated by an LED.

This I/O module is used to provide the applied supply voltage, protected by fuse, to the field devices connected to the downstream I/O modules. A blown fuse is indicated by an LED. The fuse status can also be queried from the fieldbus coupler.

Field-Side Connection Module



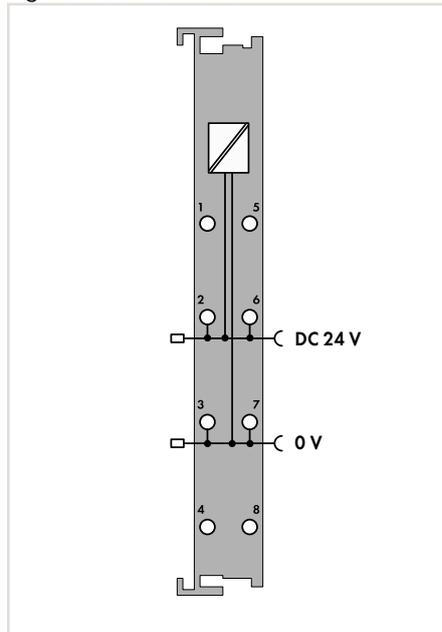
Field-side connection module; extreme



Item Description	Potential Distribution XTR
Item No.	750-614/040-000
Technical Data	
Supply voltage (field)	0 ... 230 VAC/DC; via power jumper contacts
Current carrying capacity (power jumper contacts)	10 A
Rated surge voltage	5.0 kV (EN 60870-2-1 / Class VW3) 6.0 kV (UL 61010) 6.0 kV (EN 60664-1 / up to 4,000 m ASL) 4.0 kV (EN 60664-1 / > 4,000 m to 5,000 m ASL)
Operating temperature	-40 ... +70 °C
Dimensions W x H x D	12 x 67.8 x 100 mm
Approvals	CE
Data sheet and further information, see:	wago.com/750-614/040-000

Field-Side Power Supply Filter (Surge)

Field-side power supply filter; 24 VDC (surge);
high isolation; extreme



Item Description	Field Supply Filter
Version	24 VDC HI XTR
Item No.	750-624/040-000
Technical Data	
Supply voltage (field)	24 VDC (–25 ... +30 %) Specified values for ambient temperatures under laboratory conditions +15 ... +35 °C. 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 carrying capacity (power jumper contacts)	10 A
Rated surge voltage	1 kV
Use	In marine and onshore/offshore applications, as well as in telecontrol and rail technology
Operating temperature	–40 ... +70 °C
Dimensions W x H x D	12 x 67.8 x 100 mm
Approvals	CE
Data sheet and further information, see:	wago.com/750-624/040-000



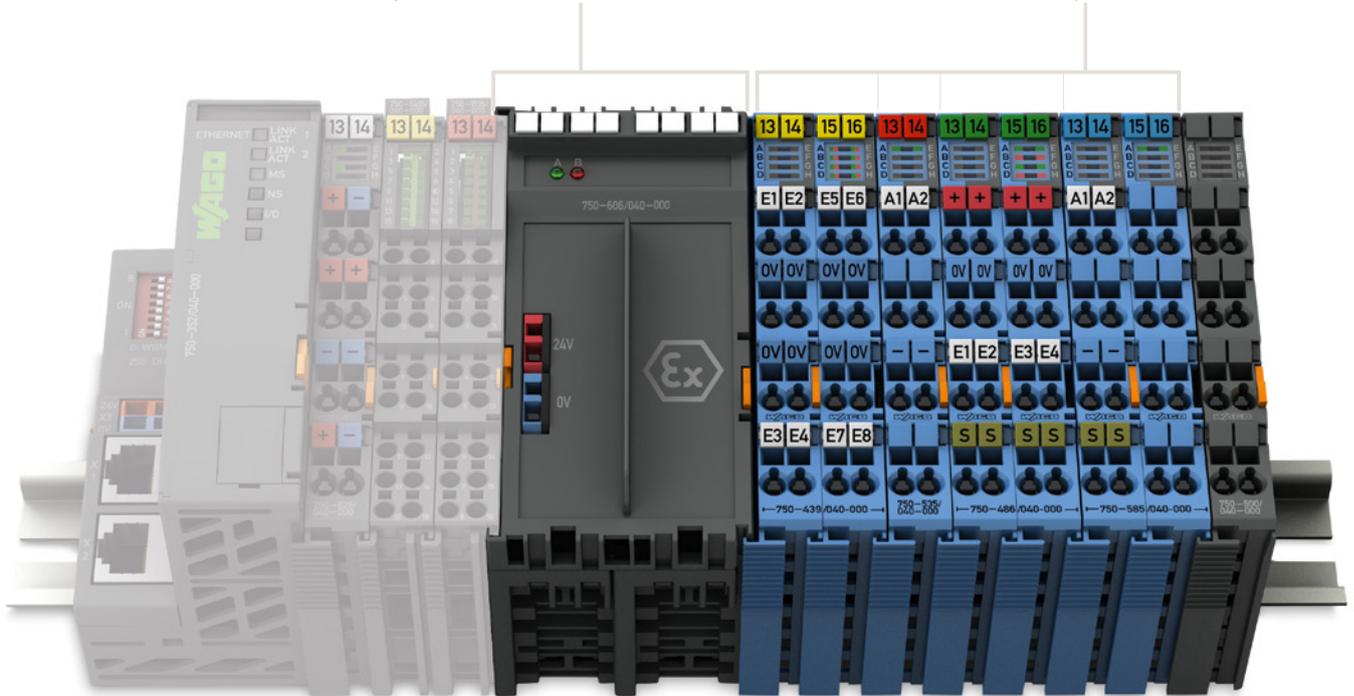
Intrinsically Safe XTR Modules

Specialty Housing

Dimensions W x H x D	48 x 70.9 x 100
Height from upper-edge of DIN-rail	63.7 mm
Connection technology	CAGE CLAMP®
Conductor range	0.25 ... 1.5 mm ² / 24 ... 14 AWG
Strip length	5 ... 6 mm / 0.22 inch

750 Series Housing Design

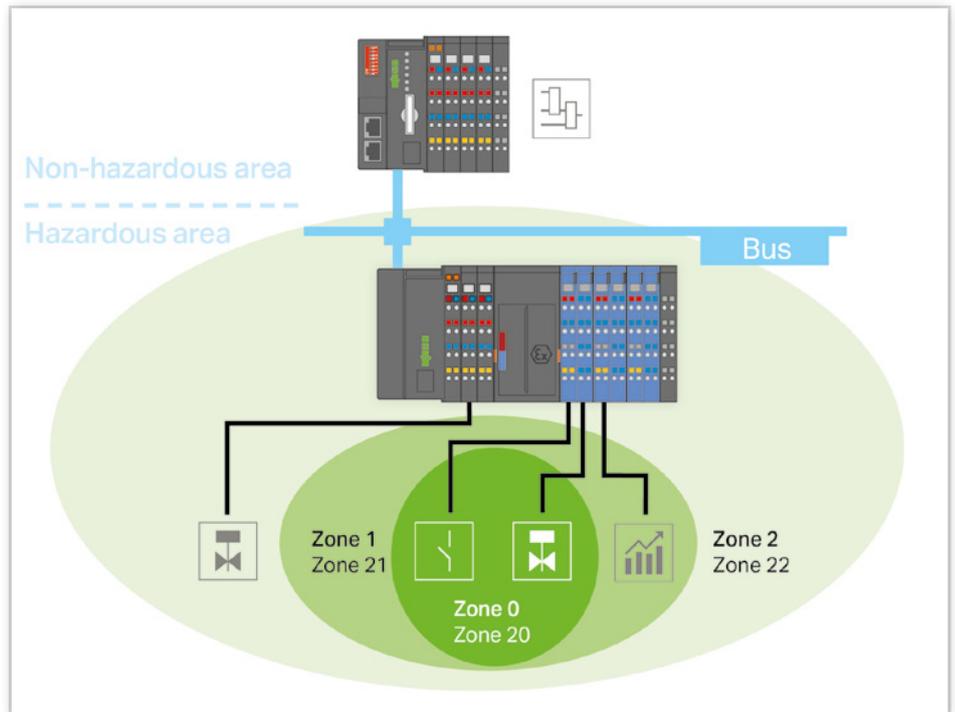
Dimensions W x H x D	12 or 24 x 67.8 x 100 mm
Height from upper-edge of DIN-rail	60.6 mm
Connection technology	CAGE CLAMP®
Conductor range	0.25 ... 2.5 mm ² / 24 ... 14 AWG
Strip length	8 ... 9 mm / 0.33 inch



Use in Hazardous Locations in eXtreme Environments

In many plants across the oil and gas industry, along with those in the chemical and petrochemical industries and the process automation sector, installations are operated that process explosive gas- or dust-air mixtures under extreme conditions. This is why electrical equipment must be explosion-proof in order to avoid injuries to personnel and damage to facilities.

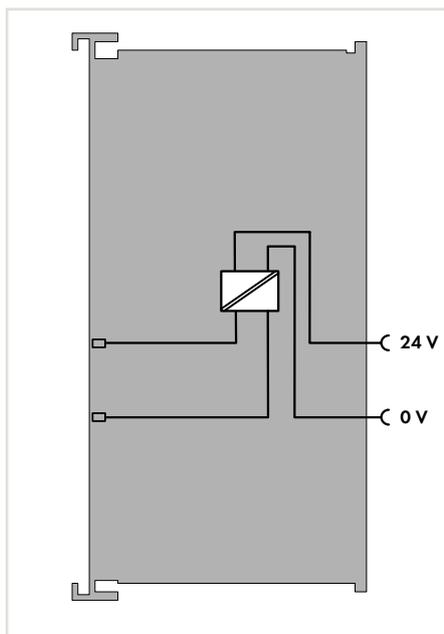
When used in hazardous areas of Zone 2/22, the WAGO-I/O-SYSTEM 750 XTR offers a safe, easy and economical connection to the sensors and actuators of Zones 0/20 and 1/21. Ambient temperatures from -40 to +70°C are permissible, as well as increased vibration loads up to 5g. The "blue" Ex i XTR modules, developed for this purpose, form an intrinsically safe section that can be integrated into a standard 750 Series XTR node, offering all the advantages of state-of-the-art fieldbus technology. The WAGO-I/O-SYSTEM 750 XTR is also approved for mining applications.



I/O-System – 750 XTR Series, Intrinsically Safe Standards and Rated Conditions

General Specifications	
Supply voltage (system)	24 VDC, via power jumper contacts (provided via XTR Ex i supply UO = max. 26.8 V)
Ambient temperature (operation)	-40 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Relative humidity	Max. 95 %, short-term condensation per Class 3K7 / IEC EN 60721-3-3 and E DIN 40046-721-3 (except wind-driven precipitation, water and ice formation)
Operating altitude	Without temperature derating: 0 ... 2000 m; with temperature derating: 2000 ... 5000 m (0.5 K/100 m); max.: 5000 m
Pollution degree	2 per IEC 61131-2
Dielectric strength	Per (EN 60870-2-1) <ul style="list-style-type: none"> • 510 VAC/775 VDC Isolation: rated surge voltage (EN 60079-11) <ul style="list-style-type: none"> • 1 kV; 1,5 kV between intrinsically safe and non-intrinsically safe circuits Surge: <ul style="list-style-type: none"> • 1 kV (L - L) / 2 kV (L - E)
Vibration resistance	Per IEC 60068-2-6 (acceleration: 5 g), EN 60870-2-2, IEC 60721-3-1, -3
Shock resistance	Per IEC 60068-2-27 (15 g/11 ms/half-sine/1,000 shocks; 25 g/6 ms/1,000 shocks), EN 61373
EMC immunity to interference	Per EN 61000-6-1, -2, EN 61131-2, marine applications, EN 60255-26, EN 60870-2-1, EN 61850-3, IEC 61000-6-5, IEEE 1613, VDEW: 1994
EMC emission of interference	Per EN 61000-6-3, -4, EN 61131-2 EN 60255-26, marine applications EN 60870-2-1 (industrial and residential areas) EN 61850-3 (industrial and residential areas)
Protection type	IP20
Mounting position	Horizontal (standing/lying) or vertical
Mounting type	DIN-35 rail mounting
Housing material	Polycarbonate, polyamide 6.6
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible SO ₂ contaminant concentration at a relative humidity < 75 %	25 ppm
Permissible H ₂ S contaminant concentration at a relative humidity < 75 %	10 ppm
Connection technology	CAGE CLAMP®
Conductor range; strip length Standard modules: Supply module:	0.25 ... 2.5 mm ² /24 ... 14 AWG; 8 ... 9 mm / 0.31 ... 0.35 inch 0.25 ... 1.5 mm ² /24 ... 14 AWG; 5 ... 6 mm / 0.2 ... 0.24 inch
Current carrying capacity (power jumper contacts)	1 A

Supply Module; 24 VDC; Extreme, for Intrinsically Safe XTR Modules



Item Description	Power Supply
Version	24 VDC XTR for Ex i XTR Modules
Item No.	750-606/040-000
Technical Data	
Current consumption (system supply)	7.5 mA
Supply voltage (field)	24 VDC, via power jumper contacts (adjacent XTR Ex i modules are supplied with $U_o = \text{max. } 26.8 \text{ V}$)
Current carrying capacity (power jumper contacts)	1 ADC
Input voltage	24 VDC (-25 ... +30 %)
Fuse	Electronic
Data width	2 bits (input voltage failure, fuse triggered)
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	24 x 70.9 x 100 mm
Explosion protection	
Power supply (input)	$U_n = 24 \text{ VDC}$; $P_{\text{max}} = 29 \text{ W}$; $U_m = 253 \text{ V}$
Power supply (output)	$U_o = 26.8 \text{ V}$ (intrinsically safe output voltage per protection level ia); $I_n = 1 \text{ A}$
Ex guideline	EN/IEC 60079-0, -7, -11
Approvals	CE, ATEX/IECEx
Marking	ATEX: II 3G Ex ec IIC T4 Gc IECEx: Ex ec IIC T4 Gc
Data sheet and further information, see:	wago.com/750-606/040-000

The supply modules monitor the voltage supply of the downstream Ex-i segment and separate the intrinsically safe from the non-intrinsically safe section of the I/O-System. Input and output sides are electrically isolated from each other.

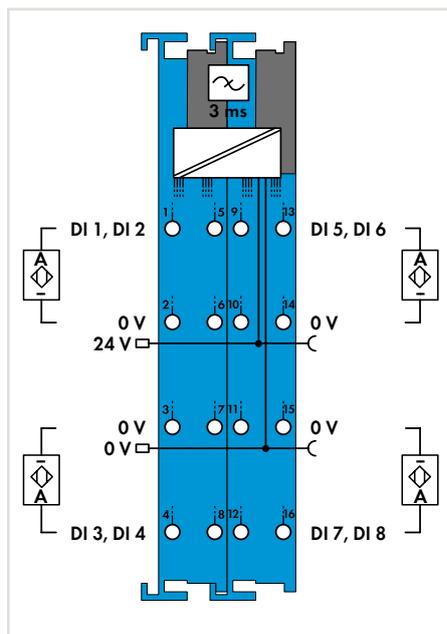
Note: If, due to load conditions, more than one supply module is required per station, four separation modules (750-616/040-000) must be placed between the intrinsically safe sections.

General information (e.g., installation regulations) on explosion protection is available in the WAGO-I/O-SYSTEM 750 XTR manuals!

Mini-WSB Quick Marking System, see Full Line Catalog, Volume 6

DIN rails and tool see Full Line Catalog, Volume 3

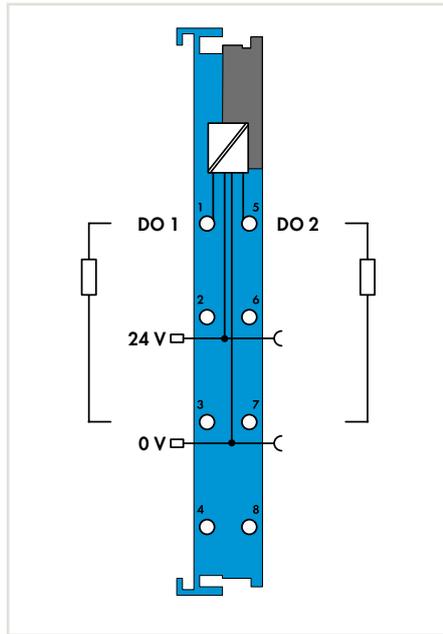
8-Channel Digital Input; NAMUR; Intrinsically Safe; Extreme



Item Description	8DI
Version	NAMUR Ex i XTR
Item No.	750-439/040-000
Technical Data	
Number of digital inputs	8
Signal type	NAMUR
Sensor connection	2 conductors
Input characteristic	High-side switching
Input filter (digital)	3 ms
Open-circuit voltage	8.2 VDC
Diagnostics	Short circuit, wire break
Supply voltage (sensor)	8.2 VDC, short-circuit-protected, isolated channels
Supply voltage (field)	24 VDC, via power jumper contacts (provided via XTR Ex i supply $U_o = \text{max. } 26.8 \text{ V}$)
Current consumption (system supply)	56 mA
Data width (internal)	16 bits
Isolation	$U_m = 300 \text{ VAC system/supply}$
Ambient temperature (operation)	$-40 \dots +70 \text{ }^\circ\text{C}$
Dimensions W x H x D	12 x 67.8 x 100 mm
Explosion protection	
Safety-relevant data (circuit)	$U_o = 11.76 \text{ V}; I_o = 12.48 \text{ mA}; P_o = 36.67 \text{ mW};$ linear characteristic curve
Reactances Ex ia IIC	$L_o = 100 \text{ mH}; C_o = 1.5 \text{ } \mu\text{F}$
Reactances Ex ia IIB	$L_o = 100 \text{ mH}; C_o = 9.9 \text{ } \mu\text{F}$
Reactances Ex ia IIA	$L_o = 100 \text{ mH}; C_o = 39 \text{ } \mu\text{F}$
Reactances Ex ia I	$L_o = 100 \text{ mH}; C_o = 38 \text{ } \mu\text{F}$
Ex guideline	EN/IEC 60079-0, -7, -11
Approvals	CE, ATEX/IECEx
Marking	ATEX: $\text{II } 3(1) \text{ G Ex ec [ia Ga] IIC T4 Gc}$ $\text{II } (1) \text{ D [Ex ia Da] IIIC}$ $\text{I } (M1) \text{ [Ex ia Ma] I Dc}$ IECEx: $\text{Ex ec [ia Ga] IIC T4 Gc}$ $[\text{Ex ia Da}] \text{ IIIC}$ $[\text{Ex ia Ma}] \text{ I}$
Data sheet and further information, see:	wago.com/750-439/040-000

Reactances without accounting for the concurrence of L and C

2-Channel Digital Output; 24 VDC; Intrinsically Safe; Extreme



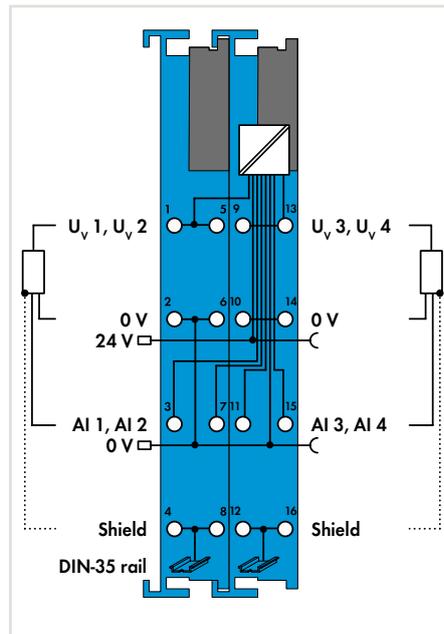
Item Description	2DO
Version	24 VDC Ex i XTR
Item No.	750-535/040-000
Technical Data	
Number of digital outputs	2
Signal type	24 VDC
Output characteristic	High-side switching
Load type	Resistive, inductive, lamps
Actuator connection	2 conductors
Switching frequency (max.)	1 kHz
Actuator supply voltage	24 VDC
Supply voltage (field)	24 VDC, via power jumper contacts (provided via XTR Ex i supply $U_o = \text{max. } 26.8 \text{ V}$)
Current consumption (system supply)	7 mA
Data width (internal)	2 bits
Isolation	$U_m = 300 \text{ VAC system/supply}$
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	12 x 67.8 x 100 mm
Explosion protection	
Safety-relevant data (circuit)	$U_o = 26,8 \text{ V}; I_o = 99.91 \text{ mA}; P_o = 669.43 \text{ mW};$ linear characteristic curve
Reactances Ex ia IIC	$L_o = 1.1 \text{ mH}; C_o = 0.092 \mu\text{F}$
Reactances Ex ia IIB	$L_o = 12 \text{ mH}; C_o = 0.72 \mu\text{F}$
Reactances Ex ia IIA	$L_o = 21 \text{ mH}; C_o = 2.37 \mu\text{F}$
Reactances Ex ia I	$L_o = 30 \text{ mH}; C_o = 3.85 \mu\text{F}$
Ex guideline	EN/IEC 60079-0, -7, -11
Approvals	CE, ATEX/IECEx
Marking	ATEX: $\text{Ex ec [ia Ga] IIC T4 Gc}$ Ex ia Da] IIIC $\text{I (M1) [Ex ia Ma] I Dc}$
	IECEx: $\text{Ex ec [ia Ga] IIC T4 Gc}$ [Ex ia Da] IIIC [Ex ia Ma] I
Data sheet and further information, see:	wago.com/750-535/040-000

Reactances without accounting for the concurrence of L and C

Mini-WSB Quick Marking System, see Full Line Catalog, Volume 6

DIN rails and tool see Full Line Catalog, Volume 3

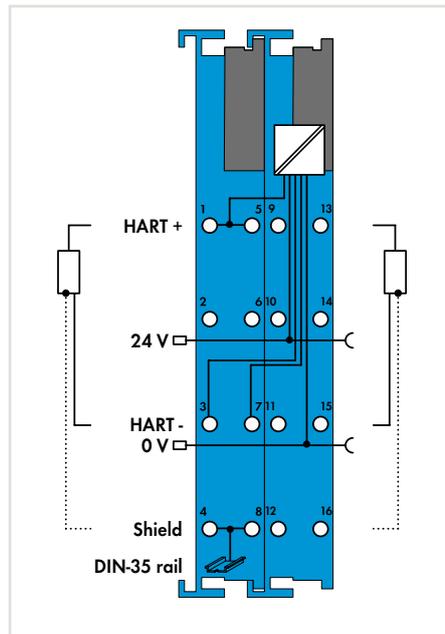
4-Channel Analog Input; 0/4 ... 20 mA; Intrinsically Safe; Extreme



Item Description	4AI
Version	0/4-20mA Ex i XTR
Item No.	750-486/040-000
Technical Data	
Number of analog inputs	4
Signal type	0 mA ... 20 mA, 4 mA ... 20 mA
Signal characteristic	Single-ended
Input resistance	< 200 Ω
Resolution	12 bits + sign bit
Conversion time	< 10 ms
Measurement/output error (25 °C)	< ± 0.1 % of the largest measurement/output area
Temperature coefficient	< ± 0.01 %/K of the largest measurement/output area
Supply voltage (field)	24 VDC, via power jumper contacts (provided via XTR Ex i supply U ₀ = max. 26.8 V)
Current consumption (system supply)	45 mA
Transmitter supply	U _v = 15 V at 20 mA
Data width	4 x 16-bit data; 4 x 8-bit control/status (optional)
Isolation	U _m = 300 VAC system/supply
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	24 x 67.8 x 100 mm
Explosion protection	
Safety-relevant data (circuit)	U ₀ = 26.8 V; I ₀ = 92.72 mA; P ₀ = 621.27 mW; linear characteristic curve
Reactances Ex ia IIC	Lo = 1.6 mH; Co = 0.082 μF
Reactances Ex ia IIB	Lo = 15 mH; Co = 0.71 μF
Reactances Ex ia IIA	Lo = 25 mH; Co = 2.36 μF
Reactances Ex ia I	Lo = 36 mH; Co = 3.84 μF
Ex guideline	EN/IEC 60079-0, -7, -11
Approvals	CE, ATEX/IECEx
Marking	ATEX: Ⓢ II 3(1) G Ex ec [ia Ga] IIC T4 Gc Ⓢ II (1) D [Ex ia Da] IIIC Ⓢ I (M1) [Ex ia Ma] I Dc IECEx: Ex ec [ia Ga] IIC T4 Gc [Ex ia Da] IIIC [Ex ia Ma] I
Data sheet and further information, see:	wago.com/750-486/040-000

Reactances without accounting for the concurrence of L and C

2-Channel Analog Input; 4 ... 20 mA HART; Intrinsically Safe; Extreme



Item Description	2AI
Version	4-20mA HART Ex i XTR
Item No.	750-484/040-000
Technical Data	
Number of analog inputs	2
Signal type	4 ... 20 mA
Signal characteristic	Single-ended
Resolution	12 bits
Conversion time	10 ms
Measurement/output error (25 °C)	0.2 % of the largest measurement/output area
Temperature coefficient	$< \pm 0.01 \text{ %/K}$ of the largest measurement/output area
Supply voltage (field)	24 VDC, via power jumper contacts (provided via XTR Ex i supply $U_o = \text{max. } 26.8 \text{ V}$)
Current consumption (system supply)	25 mA
Transmitter supply	$U_v = 16.5 \text{ V}$ at 20 mA
Data width	2 x 2-byte data; 2 x 2-byte data + 2n x 4-byte data (n = number of dynamic variables); 2 x 2-byte data + 6-byte mailbox
Isolation	$U_m = 300 \text{ VAC}$ system/supply
Ambient temperature (operation)	$-40 \dots +70 \text{ °C}$
Dimensions W x H x D	24 x 67.8 x 100 mm
Explosion protection	
Safety-relevant data (circuit)	$U_o = 26.8 \text{ V}$; $I_o = 90.07 \text{ mA}$; $P_o = 603.5 \text{ mW}$; linear characteristic curve
Reactances Ex ia IIC	$L_o = 1.8 \text{ mH}$; $C_o = 0.092 \text{ }\mu\text{F}$
Reactances Ex ia IIB	$L_o = 16 \text{ mH}$; $C_o = 0.72 \text{ }\mu\text{F}$
Reactances Ex ia IIA	$L_o = 27 \text{ mH}$; $C_o = 2.37 \text{ }\mu\text{F}$
Reactances Ex ia I	$L_o = 38 \text{ mH}$; $C_o = 3.85 \text{ }\mu\text{F}$
Ex guideline	EN/IEC 60079-0, -7, -11
Approvals	CE, ATEX/IECEx
Marking	ATEX: Ⓢ II 3(1) G Ex ec [ia Ga] IIC T4 Gc Ⓢ II (1) D [Ex ia Da] IIIC Ⓢ I (M1) [Ex ia Ma] I Dc IECEx: Ex ec [ia Ga] IIC T4 Gc [Ex ia Da] IIIC [Ex ia Ma] I
Data sheet and further information, see:	wago.com/750-484/040-000

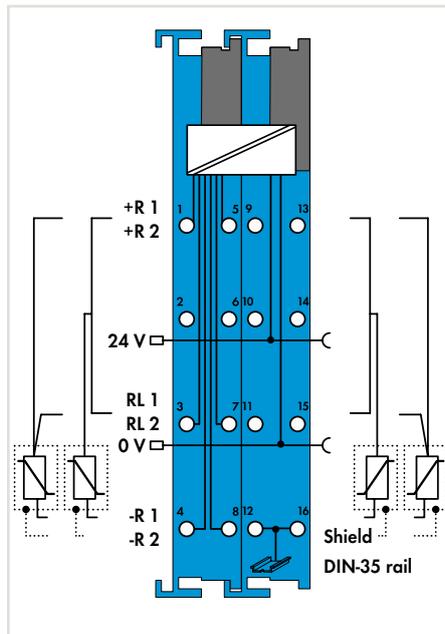
In addition to the analog signal processing, this product offers the option of HART communication for parameterizing or recording side variables.

Reactances without accounting for the concurrence of L and C

Mini-WSB Quick Marking System, see Full Line Catalog, Volume 6

DIN rails and tool see Full Line Catalog, Volume 3

2-Channel Analog Input; Resistance Measurement; Intrinsically Safe; Extreme



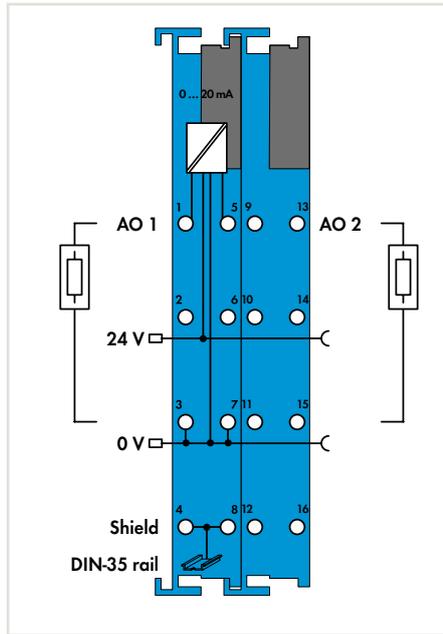
Item Description	2AI
Version	RTD Ex i XTR
Item No.	750-481/040-000
Technical Data	
Number of analog inputs	2
Signal type	Resistance thermometers: Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni1000; Resistors: 1.2 k Ω , 5 k Ω ; Potentiometer setting: 0 ... 100 % (1.2 k Ω , 5 k Ω)
Sensor connection	2 conductors, 3 conductors
Temperature range	-200 ... +850 °C (Pt), -60 ... +250 °C (Ni), -80 ... +320 °C (Ni 120)
Resolution	0.1 °C, 0.1 Ω , 0.0049 %
Conversion time	150 ... 500 ms (per channel)
Measurement/output error (25 °C)	< \pm 0.2 % of the largest measurement/output area
Temperature coefficient	< \pm 0.01 %/K of the largest measurement/output area
Supply voltage (field)	24 VDC, via power jumper contacts (provided via XTR Ex i supply U_o = max. 26.8 V)
Current consumption (system supply)	25 mA
Data width	2 x 16-bit data; 2 x 8-bit control/status (optional)
Isolation	U_m = 300 VAC system/supply
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	24 x 67.8 x 100 mm
Explosion protection	
Safety-relevant data (circuit)	U_o = 7.2 V; I_o = 5.8 mA; P_o = 10.5 mW; linear characteristic curve
Reactances Ex ia IIC	L_o = 100 mH; C_o = 13.5 μ F
Reactances Ex ia IIB	L_o = 100 mH; C_o = 240 μ F
Reactances Ex ia IIA	L_o = 100 mH; C_o = 1000 μ F
Reactances Ex ia I	L_o = 100 mH; C_o = 1000 μ F
Ex guideline	EN/IEC 60079-0, -7, -11
Approvals	CE, ATEX/IECEx
Marking	ATEX: Ⓜ II 3(1) G Ex ec [ia Ga] IIC T4 Gc Ⓜ II (1) D [Ex ia Da] IIIC Ⓜ I (M1) [Ex ia Ma] I Dc IECEx: Ex ec [ia Ga] IIC T4 Gc [Ex ia Da] IIIC [Ex ia Ma] I
Data sheet and further information, see:	wago.com/750-481/040-000

Reactances without accounting for the concurrence of L and C

2-Channel Analog Output; 0 ... 20 mA; Intrinsically Safe; Extreme



Figure: 750-585/040-000



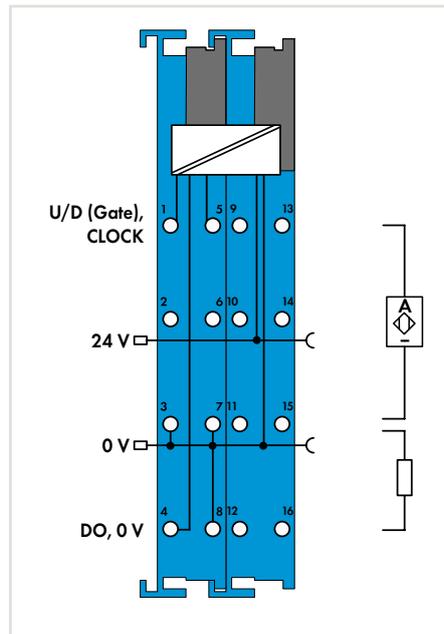
Item Description	2AO
Version	0-20mA Ex i XTR
Item No.	750-585/040-000
Technical Data	
Number of analog outputs	2
Signal type	0 ... 20 mA
Signal characteristic	Single-ended
Load impedance	< 500 Ω
Resolution	12 bits
Conversion time	< 2 ms
Measurement/output error (25 °C)	< ± 0.2 % of the largest measurement/output area
Temperature coefficient	< ± 0.01 %/K of the largest measurement/output area
Supply voltage (field)	24 VDC, via power jumper contacts (provided via XTR Ex i supply U _o = max. 26.8 V)
Current consumption (system supply)	21 mA
Data width	2 x 16-bit data
Isolation	U _m = 300 VAC system/supply
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	24 x 67.8 x 100 mm
Explosion protection	
Safety-relevant data (circuit)	U _o = 26.8 V; I _o = 56.4 mA; P _o = 378 mW; linear characteristic curve
Reactances Ex ia IIC	Lo = 8.2 mH; Co = 0.092 μF
Reactances Ex ia IIB	Lo = 46 mH; Co = 0.72 μF
Reactances Ex ia IIA	Lo = 76 mH; Co = 2.37 μF
Reactances Ex ia I	Lo = 100 mH; Co = 3.85 μF
Ex guideline	EN/IEC 60079-0, -7, -11
Approvals	CE, ATEX/IECEx
Marking	ATEX: Ⓢ II 3(1) G Ex ec [ia Ga] IIC T4 Gc Ⓢ II (1) D [Ex ia Da] IIIC Ⓢ I (M1) [Ex ia Ma] I Dc IECEx: Ex ec [ia Ga] IIC T4 Gc [Ex ia Da] IIIC [Ex ia Ma] I
Data sheet and further information, see:	wago.com/750-585/040-000

Reactances without accounting for the concurrence of L and C

Mini-WSB Quick Marking System, see Full Line Catalog, Volume 6

DIN rails and tool see Full Line Catalog, Volume 3

Up/Down Counter; Intrinsically Safe; Extreme

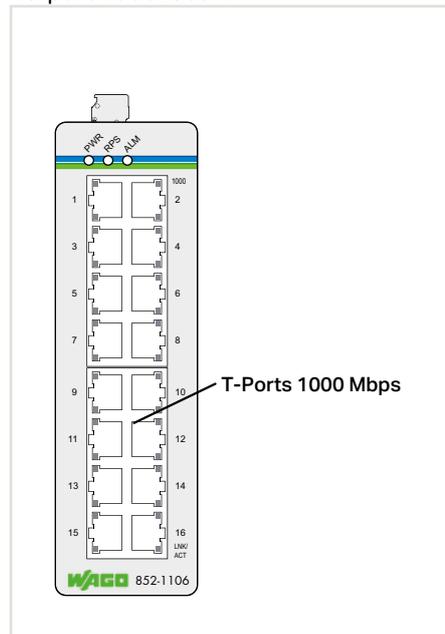


Item Description	Up/Down Counter
Version	Ex i XTR
Item No.	750-633/040-000
Technical Data	
Number of counters	1
Number of outputs	1
Sensor supply UV	8.2 VDC
Input filter	10 μ s
Switching frequency	20 Hz ... 50 kHz
Counter depth	32 bits
Output voltage	24 VDC
Supply voltage (field)	24 VDC, via power jumper contacts (provided via XTR Ex i supply $U_o = \text{max. } 26.8 \text{ V}$)
Current consumption (system supply)	25 mA
Data width	1 x 32-bit data, 1 x 8-bit status/diagnostics
Isolation	$U_m = 300 \text{ VAC system/supply}$
Ambient temperature (operation)	-40 ... +70 $^{\circ}\text{C}$
Dimensions W x H x D	24 x 67.8 x 100 mm
Explosion protection	
Safety data – input	
Input reactances Ex ia IIC	$U_o = 12 \text{ V}; I_o = 13.3 \text{ mA}; P_o = 40.4 \text{ mW};$ linear characteristic curve $L_o = 100 \text{ mH}; C_o = 1.41 \mu\text{F}$
Input reactances Ex ia IIB	$L_o = 100 \text{ mH}; C_o = 9 \mu\text{F}$
Input reactances Ex ia IIA	$L_o = 100 \text{ mH}; C_o = 36 \mu\text{F}$
Input reactances Ex ia I	$L_o = 100 \text{ mH}; C_o = 35 \mu\text{F}$
Safety data – output	
Output reactances Ex ia IIC	$U_o = 26.8 \text{ V}; I_o = 96.69 \text{ mA}; P_o = 674.83 \text{ mW};$ linear characteristic curve $L_o = 1.3 \text{ mH}; C_o = 0.091 \mu\text{F}$
Output reactances Ex ia IIB	$L_o = 13 \text{ mH}; C_o = 0.719 \mu\text{F}$
Output reactances Ex ia IIA	$L_o = 23 \text{ mH}; C_o = 2.369 \mu\text{F}$
Output reactances Ex ia I	$L_o = 33 \text{ mH}; C_o = 3.849 \mu\text{F}$
Ex guideline	EN/IEC 60079-0, -7, -11
Approvals	CE, $\text{\textcircled{A}}$ ATEX/IECEx
Marking	ATEX: $\text{\textcircled{A}}$ II 3(1) G Ex ec [ia Ga] IIC T4 Gc $\text{\textcircled{A}}$ II (1) D [Ex ia Da] IIIC $\text{\textcircled{A}}$ I (M1) [Ex ia Ma] I Dc IECEx: Ex ec [ia Ga] IIC T4 Gc [Ex ia Da] IIIC [Ex ia Ma] I
Data sheet and further information, see:	wago.com/750-633/040-000

Reactances without accounting for the concurrence of L and C

Industrial Switches

16-port 1000Base-T



Item Description	Switch
Version	16Port Gb
Item no.	852-1106

Technical Data	
Switching mode	Store-and-Forward, non-blocking
No. of ports, copper	16 x 10/100/1000Base-T
Profiles supported	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX/FX IEEE 802.3ab 1000Base-T IEEE 802.3x Flow Control IEEE 802.3az Energy Efficient Ethernet IEEE 802.1p Class of Service
Redundancy functions	Redundant DC power supply
Configuration	DIP switch for signal contact
Diagnostics	Signal contact
MAC table (large)	8000 addresses
Jumbo frame size	10 kB
Supply voltage	12 ... 60 VDC
Power consumption	12 W
Connection technology: Communication	16 x RJ-45
Ambient temperature (operation)	-40 ... +70 °C
Dimensions W x H x D	50 x 120 x 162 mm
Approvals	CE, UL 508*
Data sheet and further information, see:	wago.com/852-1106

*pending

 SFP Modules
see Full Line Catalog, Volume 3

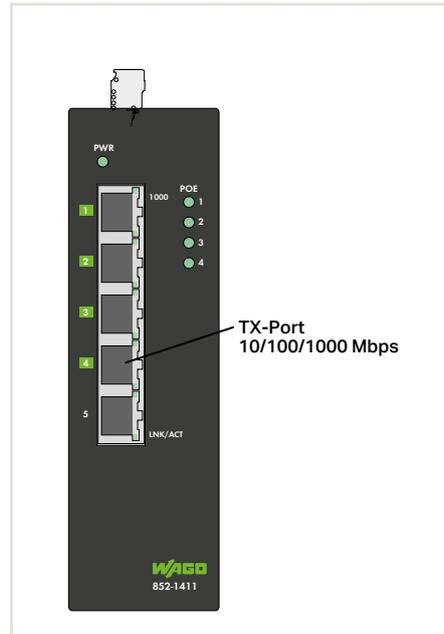
 DIN rails and tool
see Full Line Catalog, Volume 3

Industrial Switches

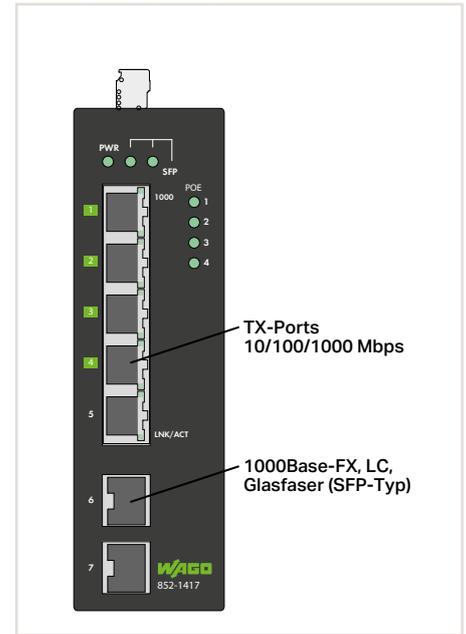


Figure: 852-1417

5 Ports 1000Base-T; 4 PoE; ECO



5 Ports 1000Base-T; 2 Ports 1000Base-SX/LX; 4 PoE; ECO



Item Description
Version
Item No.

Switch
5Port Gb T 4PoE ECO
852-1411

Switch
5Port Gb T 2FOC 4PoE ECO
852-1417

Technical Data	
Number of ports (copper)	
No. of ports, FOC	
Supported profiles	
Topology	
Jumbo frame size	
MAC table (large)	
Power supply	
Power consumption (max.)	
Connection technology: communication	
Operating temperature	
Dimensions W x H x D	
Approvals	
Data sheet and further information, see:	

5 x 10/100/1000Base-T
IEEE 802.3 10Base-T; IEEE 802.3u 100Base-TX/FX; IEEE 802.3ab 1000Base-T; IEEE 802.3x Flow Control; IEEE 802.3at and IEEE 802.3 af Power over Ethernet (PoE); IEEE 802.1p Class of Service
Star
10 kB
8000 addresses
24 ... 57 VDC
13 W; 133 W with 4 PoE
5 x RJ-45
-40 ... +70 °C
50 x 120 x 160 mm
CE, UL 508*
wago.com/852-1411

5 x 10/100/1000Base-T 2 x 1000Base-SX/LX
IEEE 802.3 10Base-T; IEEE 802.3u 100Base-TX/FX; IEEE 802.3ab 1000Base-T; IEEE 802.3z 1000Base-SX/LX IEEE 802.3x Flow Control; IEEE 802.3at and IEEE 802.3 af Power over Ethernet (PoE); IEEE 802.1p Class of Service
Star
10 kB
8000 addresses
24 ... 57 VDC
14 W; 134 W with 4 PoE
5 x RJ-45; 2 x SFP
-40 ... +70 °C
50 x 120 x 160 mm
CE, UL 508*
wago.com/852-1417

*pending

*pending

WLAN ETHERNET Gateway



Power connector:

M12 plug, A-coded



- 1: Vin + (9 ... 30 VDC)
- 2: Digital input GND
- 3: Vin GND (0 V)
- 4: Digital input + (9 ... 30 VDC)
- 5: Functional ground

ETHERNET connector:

M12 socket, D-coded



- 1: Transmit +
- 2: Receive +
- 3: Transmit -
- 4: Receive -

Item Description	Wireless ETHERNET Gateway
Item No.	758-918
Technical Data	
Radio technology	Bluetooth®: 4.0; WLAN: 802.11a/b/g/d/e/i/h
Topology	Peer-to-peer connection
Security authentication	WLAN: WPA/WPA2 PSK; LEAP; PEAP
Security encryption	WLAN: none; WEP64; WEP128; TKIP; AES/CCMP
Frequency band	ISM band, 2.4 GHz (Bluetooth®, WLAN); ISM band, 5 GHz (WLAN)
Transmission range	Up to 400 m*
Antenna	Internal directional antenna
Power supply	24 VDC (9 ... 30 V)
Ports	- ETHERNET: M12 connector, D-coded, - Supply: M12 connector, A-coded
Configuration	Simple, push-button operation and Web-based management
Number of inputs	1 (trigger input: 9 ... 30 VDC)
Operating temperature	-30 ... +65 °C
Dimensions W x H x D	67.8 × 33.2 × 92.7
Protection type	IP65
Approvals	CE
Data sheet and further information, see:	wago.com/758-918

The 758-918 Wireless ETHERNET Gateway simplifies creation of a wireless transmission link for ETHERNET protocols (e.g., PROFINET, MODBUS/TCP, Ethernet/IP).

The gateway is used as a cable substitute to create a robust, industry-proven Bluetooth® or WLAN link between two automation devices.

The gateway supports various configurations and can therefore also be operated as an access point. Both IP65 housing and internal directional antenna allow the gateway to be used even in harsh industrial environments. Simple, push-button operation provides very fast connection between two Wireless ETHERNET Gateways.

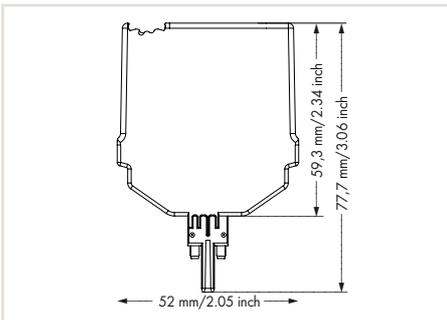
Additional settings can be made via Web-Based Management.

Note:

Two Wireless ETHERNET Gateways of the same type are required to establish a peer-to-peer connection.

*The maximum range in the field decreases with use in buildings and changes depending on the building materials used and the spatial geometry. Therefore range specifications within buildings can only represent typical values which can normally be reached. More detailed information is available in the manual.

Relay Module 2042 Series



Technical Data

Load Circuit

Contact material	AgSnO ₂
Switching voltage (max.)	250 VAC
Recommended minimum load	5 VDC; 100 mA
Dielectric strength, contact/control circuit (AC, 1 min)	3 kV
Dielectric strength, open contact (AC, 1 min)	1 kV
Dielectric strength, contact/contact (AC, 1 min)	2.5 kV _{rms}

General Specifications

Rated nominal voltage	250 V
Rated surge voltage	4 kV
Pollution degree	2
Protection type	IP20
Storage temperature	-40 ... +70 °C
Standards/approvals	CE, EN 61010-2-201, EN 61373

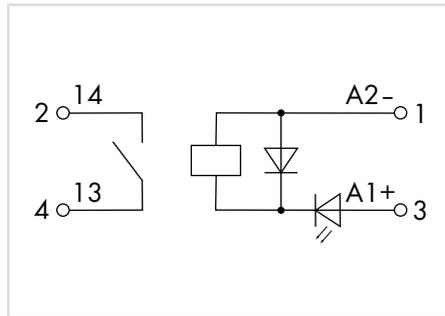
Accessories

	Item No.	Pack. Unit
2-conductor carrier terminal block, 0.25 ... 4 mm ² (22 ... 12 AWG), 5.2 mm (0.205 inch) wide	gray 2002-1661	50
End and intermediate plate, 1 mm thick	orange 2002-1692	100 (4x25)
	gray 2002-1691	100 (4x25)
3-conductor carrier terminal block, 0.25 ... 4 mm ² (22 ... 12 AWG), 5.2 mm (0.205 inch) wide	gray 2002-1761	50
End and intermediate plate, 1 mm thick	orange 2002-1792	100 (4x25)
	gray 2002-1791	100 (4x25)
4-conductor carrier terminal block, 0.25 ... 4 mm ² (22 ... 12 AWG), 5.2 mm (0.205 inch) wide	gray 2002-1861	50
End and intermediate plate, 1 mm thick	orange 2002-1892	100 (4x25)
	gray 2002-1891	100 (4x25)
2-conductor carrier terminal block, 0.25 ... 4 mm ² (22 ... 12 AWG), 5.2 mm (0.205 inch) wide	gray 2002-1961	50
End and intermediate plate, 1 mm thick	orange 2002-1992	100 (4x25)
	gray 2002-1991	100 (4x25)

Relay Module 2042 Series



Similar to picture

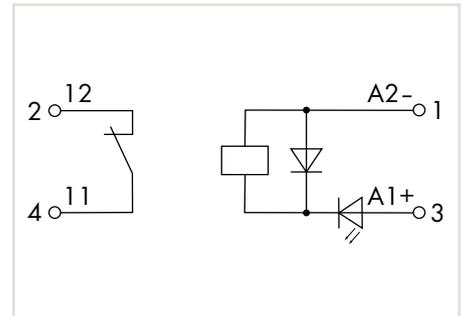


Relay module; relay with 1 make contact (1a);
24 VDC; railway applications

U_N	I_N	Item No.	Pack. Unit
24 VDC	6,6 mA	2042-3004	6



Similar to picture



Relay module; relay with 1 break contact (1r);
24 VDC; railway applications

U_N	I_N	Item No.	Pack. Unit
24 VDC	6,4 mA	2042-3054	6

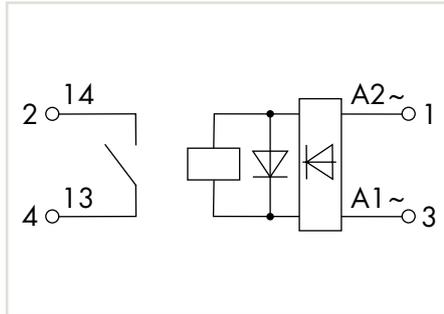
Specific Technical Data

Control Circuit	
Input voltage range	$U_N -30 \dots +25 \%$
Load Circuit	
Limiting continuous current	6 A
Inrush current (max.)	-
Switching power (max.)	1500 VA
Pull-in/drop-out/bounce time (typ.)	8 ms / 4 ms / -
Mechanical life	$> 5 \times 10^6$
Electrical life (NO, resistive load)	$> 5 \times 10^4$
General Specifications	
Permissible ambient temperature at U_N	$-40 \dots +70 \text{ }^\circ\text{C}$
Dimensions (mm) W x H x D	10.3 x 77.7 x 52 (height: 59.3 from the surface)
Weight	19 g

Relay Module 2042 Series



Similar to picture

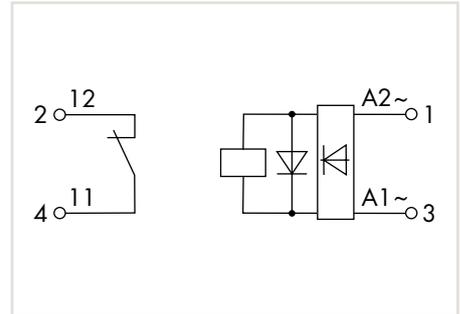


Relay module; 230 VAC/DC;
relay with 1 make contact (1a)

U_N	I_N	Item No.	Pack. Unit
24 ... 230 VAC/DC	26.3 ... 1.7 mA	2042-3809	6



Similar to picture



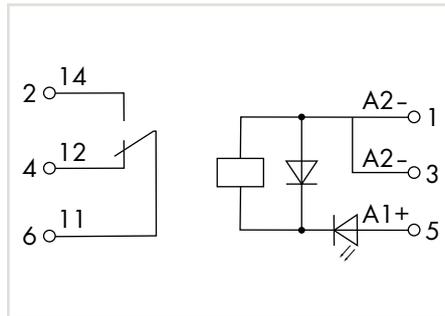
Relay module; 230 VAC/DC;
relay with 1 break contact (1r)

U_N	I_N	Item No.	Pack. Unit
24 ... 230 VAC/DC	26.3 ... 1.7 mA	2042-3859	6

Specific Technical Data

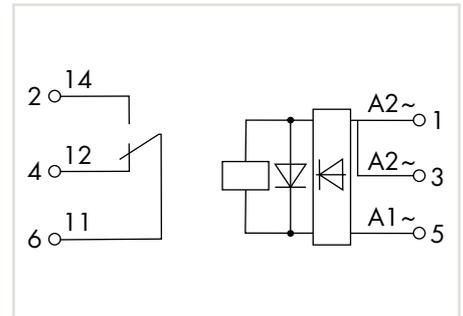
Control Circuit	
Input voltage range	$U_N \pm 10\%$
Load Circuit	
Limiting continuous current	3 A
Inrush current (max.)	-
Switching power (max.)	750 VA
Pull-in/drop-out/bounce time (typ.)	8 ms / 4 ms / -
Mechanical life	$> 5 \times 10^6$
Electrical life (NO, resistive load)	$> 5 \times 10^4$
General Specifications	
Permissible ambient temperature at U_N	-40 ... +70 °C
Dimensions (mm) W x H x D	10.3 x 77.7 x 52 (height: 59.3 from the surface)
Weight	19 g

Relay Module 2042 Series



Relay module; relay with 1 changeover contact (1u); 24 VDC; railway applications

U_N	I_N	Item No.	Pack. Unit
24 VDC	13.7 mA	2042-3034	4



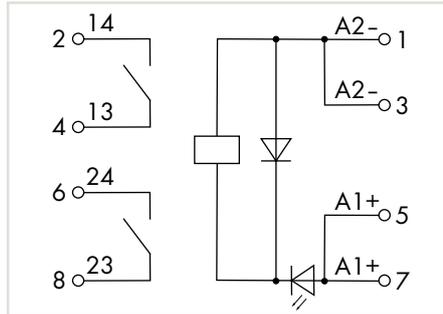
Relay module; 230 VAC/DC; relay with 1 changeover contact (1u)

U_N	I_N	Item No.	Pack. Unit
24 ... 230 VAC/DC	50.2 ... 2.8 mA	2042-3839	4

Specific Technical Data

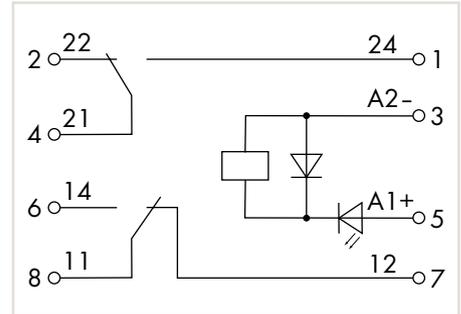
Control Circuit	
Input voltage range	$U_N -30 \dots +25 \%$
Load Circuit	
Limiting continuous current	10 A
Inrush current (max.)	30 A
Switching power (max.)	2500 VA
Pull-in/drop-out/bounce time (typ.)	8 ms / 6 ms / 4 ms
Mechanical life	10×10^6
Electrical life (NO, resistive load)	10^5 (16 A)
General Specifications	
Permissible ambient temperature at U_N	$-40 \dots +70 \text{ }^\circ\text{C}$
Dimensions (mm) W x H x D	15.5 x 77.7 x 52 (height: 59.3 from the surface)
Weight	69.6 g

Relay Module 2042 Series



Relay module; relay with 2 make contacts (2a); 24 VDC; railway applications

U_N	I_N	Item No.	Pack. Unit
24 VDC	13.8 mA	2042-3014	4



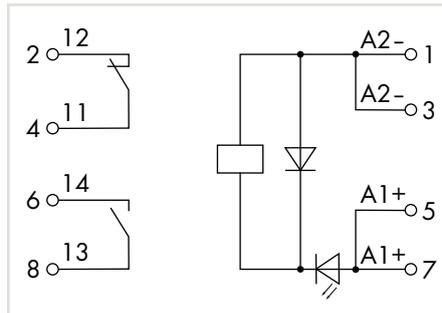
Relay module; relay with 2 changeover contacts (2u); 24 VDC; railway applications

U_N	I_N	Item No.	Pack. Unit
24 VDC	13.8 mA	2042-3044	4

Specific Technical Data

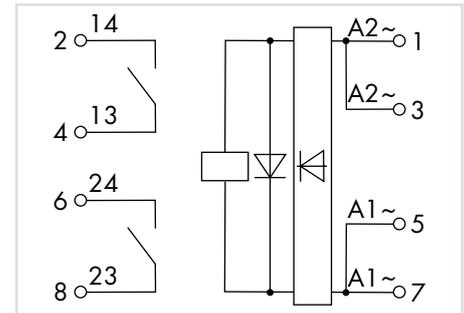
Control Circuit	
Input voltage range	$U_N -30 \dots +25 \%$
Load Circuit	
Limiting continuous current	8 A
Inrush current (max.)	15 A
Switching power (max.)	2000 VA
Pull-in/drop-out/bounce time (typ.)	8 ms / 6 ms / 4 ms
Mechanical life	10×10^6
Electrical life (NO, resistive load)	$10^5 (2 \times 8 \text{ A})$
General Specifications	
Permissible ambient temperature at U_N	$-40 \dots +70 \text{ }^\circ\text{C}$
Dimensions (mm) W x H x D	20.7 x 77.7 x 52 (height: 59.3 from the surface)
Weight	73.3 g

Relay Module 2042 Series



Relay module; relay with 1 break contact and 1 make contact (1ar); 24 VDC; railway applications

U_N	I_N	Item No.	Pack. Unit
24 VDC	13.8 mA	2042-3064	4



Relay module; 230 VAC/DC; relay with 2 break contacts (2a)

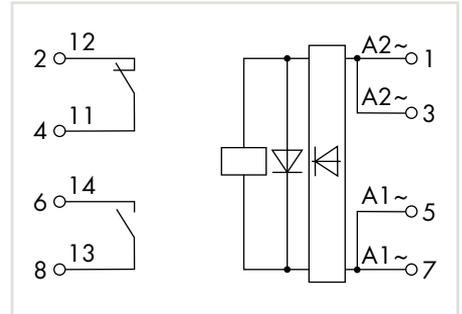
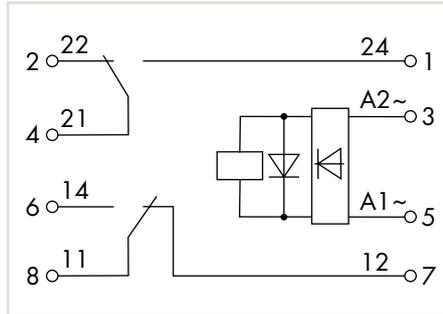
U_N	I_N	Item No.	Pack. Unit
24 ... 230 VAC/DC	49.1 ... 2.9 mA	2042-3819	4

Specific Technical Data

Control Circuit	
Input voltage range	$U_N -30 \dots +25 \%$
Load Circuit	
Limiting continuous current	8 A
Inrush current (max.)	15 A
Switching power (max.)	2000 VA
Pull-in/drop-out/bounce time (typ.)	8 ms / 6 ms / 4 ms
Mechanical life	10×10^6
Electrical life (NO, resistive load)	$10^5 (2 \times 8 \text{ A})$
General Specifications	
Permissible ambient temperature at U_N	$-40 \dots +70 \text{ }^\circ\text{C}$
Dimensions (mm) W x H x D	20.7 x 77.7 x 52 (height: 59.3 from the surface)
Weight	73.3 g

$U_N \pm 10 \%$
5 A
15 A
1250 VA
8 ms / 6 ms / 4 ms
10×10^6
$10^5 (2 \times 8 \text{ A})$
$-40 \dots +70 \text{ }^\circ\text{C}$
20.7 x 77.7 x 52 (height: 59.3 from the surface)
74.4 g

Relay Module 2042 Series



Relay module; 230 VAC/DC;
relay with 2 changeover contacts (2u)

U_N	I_N	Item No.	Pack. Unit
24 ... 230 VAC/DC	49.1 ... 2.9 mA	2042-3849	4

Relay module; 230 VAC/DC; relay with 1 break contact and 1 make contact (1ar)

U_N	I_N	Item No.	Pack. Unit
24 ... 230 VAC/DC	49.1 ... 2.9 mA	2042-3869	4

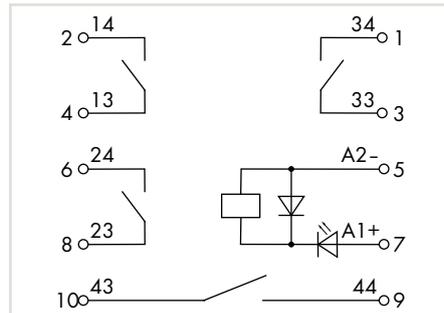
Specific Technical Data

Control Circuit	
Input voltage range	$U_N \pm 10\%$
Load Circuit	
Limiting continuous current	5 A
Inrush current (max.)	15 A
Switching power (max.)	1250 VA
Pull-in/drop-out/bounce time (typ.)	8 ms / 6 ms / 4 ms
Mechanical life	10×10^6
Electrical life (NO, resistive load)	$10^5 (2 \times 8 \text{ A})$
General Specifications	
Permissible ambient temperature at U_N	-40 ... +70 °C
Dimensions (mm) W x H x D	20.7 x 77.7 x 52 (height: 59.3 from the surface)
Weight	74.4 g

Relay Module 2042 Series

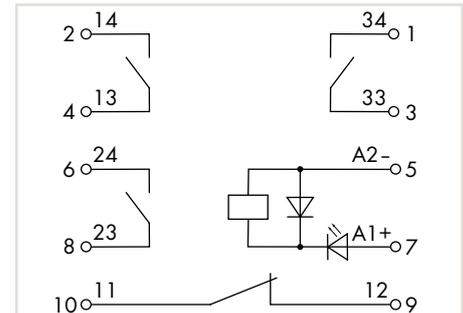


Similar to picture



Relay module; relay with 4 make contacts (4a);
24 VDC; railway applications

U_N	I_N	Item No.	Pack. Unit
24 VDC	28.1 mA	2042-3024	5



Relay module; relay with 3 make contacts and 1
break contact (3a1r); 24 VDC; railway applications

U_N	I_N	Item No.	Pack. Unit
24 VDC	27.4 mA	2042-3074	5

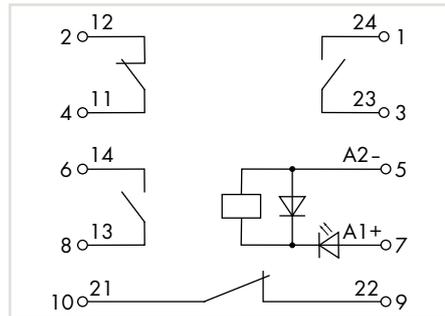
Specific Technical Data

Control Circuit	
Input voltage range	$U_N -30 \dots +25 \%$
Load Circuit	
Limiting continuous current	5 A
Inrush current (max.)	15 A
Switching power (max.)	1250 VA
Pull-in/drop-out/bounce time (typ.)	8 ms / 6 ms / 4 ms
Mechanical life	10×10^6
Electrical life (NO, resistive load)	5×10^5 (4 x 5 A)
General Specifications	
Permissible ambient temperature at U_N	$-40 \dots +70 \text{ }^\circ\text{C}$
Dimensions (mm) W x H x D	25.9 x 77.7 x 52 (height: 59.3 from the surface)
Weight	78 g

Relay Module 2042 Series



Similar to picture

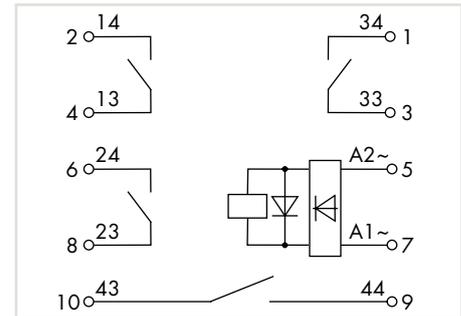


Relay module; relay with 2 break contacts and 2 make contacts (2ar); 24 VDC; railway applications

U_N	I_N	Item No.	Pack. Unit
24 VDC	28.1 mA	2042-3084	5



Similar to picture



Relay module; 230 VAC/DC; relay with 4 break contacts (4a)

U_N	I_N	Item No.	Pack. Unit
24 ... 230 VAC/DC	58.4 ... 6 mA	2042-3829	5

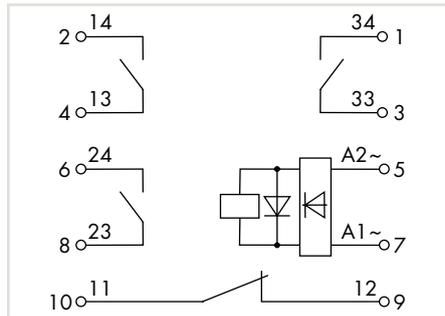
Specific Technical Data

Control Circuit	
Input voltage range	$U_N -30 \dots +25 \%$
Load Circuit	
Limiting continuous current	5 A
Inrush current (max.)	15 A
Switching power (max.)	1250 VA
Pull-in/drop-out/bounce time (typ.)	8 ms / 6 ms / 4 ms
Mechanical life	10×10^6
Electrical life (NO, resistive load)	5×10^5 (4 x 5 A)
General Specifications	
Permissible ambient temperature at U_N	$-40 \dots +70 \text{ }^\circ\text{C}$
Dimensions (mm) W x H x D	25.9 x 77.7 x 52 (height: 59.3 from the surface)
Weight	78 g

Relay Module 2042 Series



Similar to picture

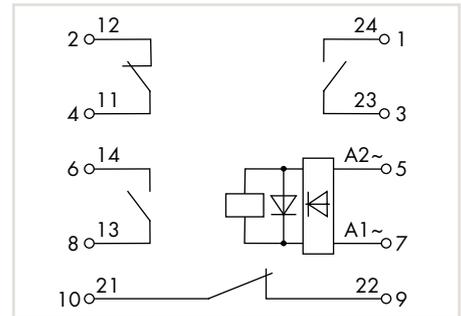


Relay module; 230 VAC/DC; relay with 3 make contacts and 1 break contact (3a1r)

U_N	I_N	Item No.	Pack. Unit
24 ... 230 VAC/DC	58.4 ... 6 mA	2042-3879	5



Similar to picture



Relay module; 230 VAC/DC; with 2 break contacts and 2 make contacts (2ar)

U_N	I_N	Item No.	Pack. Unit
24 ... 230 VAC/DC	58.4 ... 6 mA	2042-3889	5

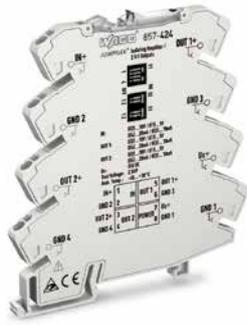
Specific Technical Data

Control Circuit	
Input voltage range	$U_N \pm 10\%$
Load Circuit	
Limiting continuous current	3 A
Inrush current (max.)	15 A
Switching power (max.)	750 VA
Pull-in/drop-out/bounce time (typ.)	8 ms / 6 ms / 4 ms
Mechanical life	10×10^6
Electrical life (NO, resistive load)	5×10^5 (4 x 5 A)
General Specifications	
Permissible ambient temperature at U_N	-40 ... +50 °C
Dimensions (mm) W x H x D	25.9 x 77.7 x 52 (height: 59.3 from the surface)
Weight	78 g

JUMPFLEX® Signal Conditioners

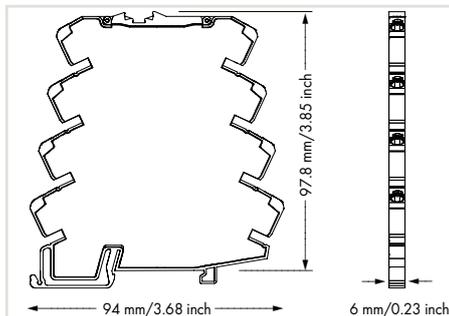
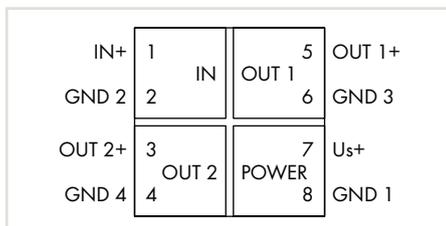
Signal Splitter; with 2 Configurable Voltage and Current Outputs

857 Series



JUMPFLEX® Isolation Amplifier; current and voltage input signal; 2 x current and voltage output signal; configuration via DIP switch; 24 VDC supply voltage; 6 mm wide

Item No.	Pack. Unit
857-424	1



Short description:

The 857-424 Signal Splitter converts, amplifies, filters and electrically isolates analog standard signals. In addition, the input signal is split into two separate outputs.

Features:

- Two configurable voltage/current outputs
- Switchable limiting frequency
- Safe 4-way isolation with 3 kV test voltage per EN 61010-1

Configuration via:



Overview of icons, see page 112!

Technical Data

Configuration	
Configuration	DIP switch
Input	
Input signal	0 ... 10 mA; 2 ... 10 mA; 0 ... 20 mA; 4 ... 20 mA; 0 ... 5 V; 1 ... 5 V; 0 ... 10 V; 2 ... 10 V
Max. input signal	12 V; 24 mA
Overload capacity	30 V; 50 mA
Input resistance	< 50 Ω (I input) > 100 kΩ (U input)
Output	
Output signal	0 ... 10 V; 2 ... 10 V (calibrated configurable signals); 0 ... 20 mA, 4 ... 20 mA (calibrated configurable signals); max. 12 V, 24 mA
Load impedance	≤ 600 Ω (I output) ≥ 2 kΩ (U output)
General Specifications	
Nominal supply voltage U_s	24 VDC
Supply voltage range	U_s -30 ... +30 %
Current input at 24 VDC	≤ 35 mA
Limiting frequency	100 Hz / > 1 kHz (configurable via DIP switch)
Step response	< 3.5 ms / < 300 μs
Transmission error	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Conformity marking	CE
Standards/specifications	EN 61010-1; EN 61326-1; EN 50121-3-2; EN 61373
Environmental Requirements	
Ambient operating temperature	-40 ... +70 °C
Storage temperature	-40 ... +85 °C
Safety and Protection	
Test voltage (input/output/supply)	3 kV (AC); 50 Hz; 1 min
Protection type	IP20
Connection and Mounting Type	
Connection technology	Push-in CAGE CLAMP®
Conductor range	
Solid	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Fine-stranded	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Dimensions and Weight	
Dimensions (mm) W x H x D	6 x 97.8 x 94; height from upper-edge of DIN-rail
Weight	37.9 g

857-424**DIP Switch Adjustability**

● = ON

DIP Switch S1 (4 positions)

Input Signal			4	Max. Operating Frequency
1	2	3		
●				> 1 kHz
●		●	●	100 Hz
●	●			
●	●	●		
		●		
	●			
	●	●		

DIP Switch S2 (2 positions)

Output Signal 1	
1	2
●	
	●
●	●

DIP Switch S3 (2 positions)

Output Signal 2	
1	2
●	
	●
●	●

Default Settings

Input	0 ... 20 mA
Output signal 1	0 ... 10 V
Output signal 2	0 ... 10 V
Max. operating frequency	> 1 kHz

JUMPFLEX® Signal Conditioners

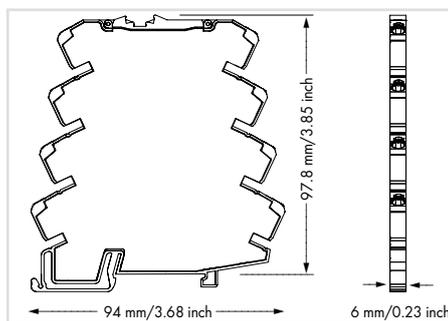
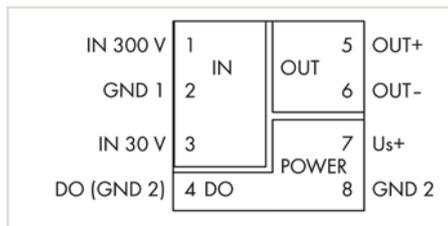
Voltage Signal Conditioner

857 Series



JUMPFLEX® Voltage Signal Conditioner; current input signal for AC and DC voltages; current and voltage output signal; digital output; configuration via software/DIP switch; 24 VDC supply voltage; 6 mm wide

Item No.	Pack. Unit
857-560	1



Short description:

The 857-560 Voltage Signal Conditioner measures AC and DC voltages up to 300 V AC/DC and converts the input signal into an analog standard signal at the output.

Features:

- Two isolated measurement inputs for 30 V and 300 V AC/DC
- True RMS measurement or arithmetic mean value
- A digital signal output reacts to configured measurement range limits (switching ON/OFF delay and threshold value switch function configurable with up to two threshold values)
- Switchable filter function
- Safe 3-way isolation with 3 kV test voltage per EN 61010-1

Specialty functions:



Configuration via:



Technical Data

Configuration

Configuration

DIP switch; interface configuration software; interface configuration app

Input

Input signal
Response threshold
Input resistance
Frequency range
Overload capacity
Resolution

300 or 30 VAC/DC
IN 1: 300 mV; IN 2: 30 mV
> 300 kΩ
10 ... 100 Hz (AC)
IN 1: 600 V; IN 2: 60 V (permanent)
IN 1: 30 mV, IN 2: 3 mV

Output

Output signal

± 0 ... 20 mA; 4 ... 20 mA;
± 0 ... 10 mA; 2 ... 10 mA;
± 0 ... 10 V; 2 ... 10 V;
± 0 ... 5 V; 1 ... 5 V

Load impedance

≤ 600 Ω (I output);
≥ 1 kΩ (U output)

Output – Digital

Max. switching voltage
Max. continuous current

Supply voltage applied
100 mA

General Specifications

Nominal supply voltage U_s
Supply voltage range
Current input at 24 VDC
Measuring procedure
Limiting frequency
Step response
Temperature coefficient
Measurement error
Conformity marking

24 VDC
 U_s -30 ... +30 %
46 mA + I_{DO}
Effective value (RMS) or arithmetic mean value
2 kHz
60 ms
≤ 0.01 %/K
< 0.5 %
CE

Standards/specifications

EN 61010-1; EN 61326-2-3; EN 50121-3-2;
EN 61373

Environmental Requirements

Ambient operating temperature
Storage temperature

-40 ... +70 °C
-40 ... +85 °C

Safety and Protection

Test voltage
(input/output/supply)
Protection type

3 kV (AC); 50 Hz; 1 min
IP20

Connection and Mounting Type

Connection technology
Conductor range

Push-in CAGE CLAMP®

Solid
Fine-stranded
Strip length

0.08 ... 2.5 mm² / 28 ... 14 AWG
0.34 ... 2.5 mm² / 22 ... 14 AWG
9 ... 10 mm / 0.35 ... 0.39 inch

Dimensions and Weight

Dimensions (mm) W x H x D
Weight

6 x 97.8 x 94; height from upper-edge of DIN-rail
55 g

857-560

DIP Switch Adjustability

● = ON

DIP Switch S1

1	2	Input	3	Measuring Method	4	Filter
		300 V		RMS		Off
	●	150 V	●	Arithmetic mean value	●	Active
	●	30 V				
	● ●	15 V				

DIP Switch S1

5	6	7	Output Signal Range
			(+/-) 0 ... 20 mA
	●		4 ... 20 mA
●			(+/-) 0 ... 10 V
● ●			2 ... 10 V
		●	(+/-) 0 ... 10 mA
	● ●		2 ... 10 mA
●		●	(+/-) 0 ... 5 V
● ● ●			1 ... 5 V

DIP Switch S1

8	9	Measuring Range Underflow	Measuring Range Overflow	10	Digit Output DO/ Signaling
		Lower limit of measuring range -5 % ¹	Upper limit of measuring range +2.5 % ¹		DO U _S + switching
●		Lower limit of measuring range	Upper limit of measuring range +2.5 %	●	DO GND switching
	●	Lower limit of measuring range	Upper limit of measuring range		
● ●		Lower limit of measuring range	Upper limit of measuring range		

¹per NAMUR NE 43

Filter

The filter function allows a low-pass filter to be switched on in order to mask or "smooth out" oscillating measured values (e.g., during trailing edge flows).

Digital Output DO/Signaling

The digital output (DO) signals error messages and can be configured as follows:

24 V → 0 V / 0 V → 24 V

Default Setting

All DIP switches are in "OFF" position for delivery.	
Input	
Input	300 V
Measuring method	RMS
Filter	Off
Output	
Output signal	0 ... 20 mA
Measuring range underflow	0 mA
Measuring range overflow	20.5 mA
Overcurrent	21 mA
Digital output DO	U _S + switching

JUMPFLEX® Signal Conditioners

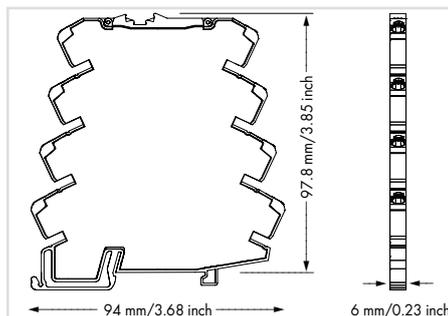
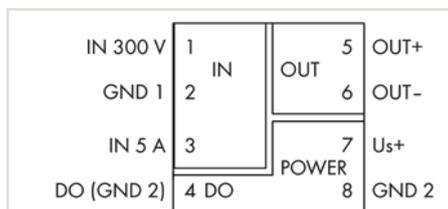
Power Signal Conditioner

857 Series



JUMPFLEX® Power Signal Conditioner; current and voltage input signal; current and voltage output signal; digital output; configuration via software/DIP switch; 24 VDC supply voltage; 6 mm wide

Item No.	Pack. Unit
857-569	1



Short description:

The 857-569 Power Signal Conditioner measures both AC/DC voltages and currents, converting the input signal into an analog standard signal at the output. Measured value processing can be switched between effective, apparent or reactive power, and phase angle.

Features:

- Two isolated measurement inputs for AC and DC voltages and AC and DC currents
- RMS measurement
- A digital signal output reacts to configured measurement range limits (switching ON/OFF delay and threshold value switch function configurable with up to two threshold values)
- Switchable filter function
- Safe 3-way isolation with 3 kV test voltage per EN 61010-1

Specialty functions:



Configuration via:



Overview of icons, see page 112!

Technical Data

Configuration

Configuration

DIP switch; interface configuration software; interface configuration app

Input

Input signal

IN 1: 300 V AC/DC; IN 2: 5 A AC/DC

Response threshold

IN 1: 300 mV
IN 2: 10 mA

Resolution

IN 1: 30 mV
IN 2: 1 mA

Input resistance

≤ 10 mΩ (I input);
> 300 kΩ (U output)

Frequency range

15 ... 70 Hz (AC)

Overload capacity

10 A AC/DC (permanent)

Output

Output signal

0 ... 10 mA; 2 ... 10 mA;
0 ... 20 mA; 4 ... 20 mA;
0 ... 5 V; 1 ... 5 V;
0 ... 10 V; 2 ... 10 V
(can be inverted; also bipolar)

Load impedance

≤ 600 Ω (I output);
≥ 1 kΩ (U output)

Output – Digital

Max. switching voltage

Supply voltage applied

Max. continuous current

100 mA

General Specifications

Nominal supply voltage U_s

24 VDC

Supply voltage range

$U_s -30 ... +30$ %

Current input at 24 VDC

≤ 46 mA

Measuring procedure

RMS measurement

Measured variables

Effective/apparent/reactive power; power factor

Limiting frequency

2 kHz

Step response

100 ms

Temperature coefficient

≤ 0.01 %/K

Measurement error

(relative to measurement range upper limit)

Voltage: < 0.5 %
Current: < 0.5 %
Phase angle: < 0.5 %

Conformity marking

CE

Standards/specifications

EN 61010-1; EN 61326-2-3; EN 50121-3-2;
EN 61373

Environmental Requirements

Ambient operating temperature

-40 ... +70 °C

Storage temperature

-40 ... +85 °C

Safety and Protection

Test voltage

(input/output/supply)

3 kV (AC); 50 Hz; 1 min.

Protection type

IP20

Connection and Mounting Type

Connection technology

Push-in CAGE CLAMP®

Conductor range

Solid

0.08 ... 2.5 mm² / 28 ... 14 AWG

Fine-stranded

0.34 ... 2.5 mm² / 22 ... 14 AWG

Strip length

9 ... 10 mm / 0.35 ... 0.39 inch

Dimensions and Weight

Dimensions (mm) W x H x D

6 x 97.8 x 94; height from upper-edge of DIN-rail

Weight

55 g

857-569 DIP Switch Adjustability

● = ON

DIP Switch S1

1	2	Input	3	4	Filter
		Active power			Off
	●	Apparent power	●	●	Active
	●	Reactive power			
	● ●	Power factor			

DIP Switch S1

5	6	7	Output Signal Range
			0 ... 20 mA
	●		4 ... 20 mA
●			0 ... 10 V
● ●			2 ... 10 V
		●	0 ... 10 mA
	● ●		2 ... 10 mA
●		●	0 ... 5 V
● ●		●	1 ... 5 V

DIP Switch S1

8	9	Measuring Range Underflow	Measuring Range Overflow	10	Digit Output DO/ Signaling
		Lower limit of measuring range -5 %	Upper limit of measuring range +2.5 %		DO U _S + switching
●		Lower limit of measuring range	Upper limit of measuring range +2.5 %	●	DO GND switching
	●	Lower limit of measuring range	Upper limit of measuring range	*per NAMUR NE 43	
● ●		Lower limit of measuring range	Upper limit of measuring range		

Filter

The filter function allows a low-pass filter to be switched on in order to mask or "smooth out" oscillating measured values (e.g., during trailing edge flows).

Digital Output DO/Signaling

The digital output (DO) signals error messages and can be configured as follows:

24 V → 0 V / 0 V → 24 V

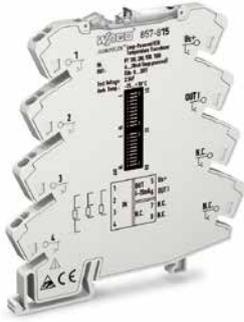
Default Setting

All DIP switches are in "OFF" position for delivery.	
Input	
Input	Power
Measuring method	Active power
Filter	Off
Output	
Output	Current
Output signal range	0 ... 20 mA
Measuring range underflow	0 mA
Measuring range overflow	20.5 mA
Overcurrent	21 mA
Digital output DO	U _S + switching

JUMPFLEX® Signal Conditioners

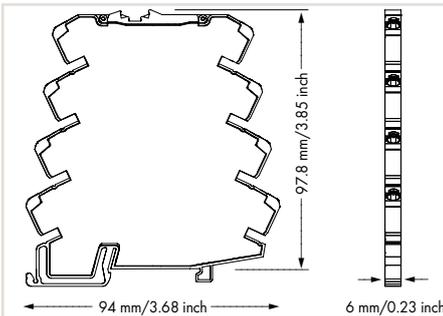
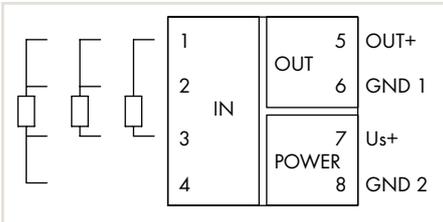
Loop-Powered RTD Temperature Signal Conditioner

857 Series



JUMPFLEX® Loop-Powered RTD Temperature Signal Conditioner for Pt Sensors; current output signal; configuration via DIP switch; power via output; 6 mm wide

Item No.	Pack. Unit
857-815	1



Short description:

The 857-815 Loop-Powered RTD Temperature Signal Conditioner records Pt100, Pt200, Pt500 and Pt1000 sensors and resistors up to 4.5 kΩ, converting the temperature signal into an analog standard signal on the output side.

Features:

- No additional supply voltage required
- For Pt100, Pt200, Pt500 and Pt1000 sensors, as well as resistors up to 4.5 kΩ
- 2-, 3-, and 4-wire connection technology
- Switching between measurement ranges is calibrated
- Detects sensor wire break/short circuit
- Safe 3-way isolation with 3 kV test voltage per EN 61010-1

Configuration via:



Overview of icons, see page 112!

Technical Data

Configuration	
Configuration	DIP switch
Input	
Input signal	Pt sensors and resistors
Sensor types	Pt100, Pt200, Pt500, Pt1000
Sensor connection	2-wire; 3-wire; 4-wire (configurable)
Temperature range	-200 ... +850 °C
Sensor power supply	< 0.5 mA
Resistor input	0 ... 1 kΩ; 0 ... 4.5 kΩ
Output	
Output signal	4 ... 20 mA; 20 ... 4 mA
Load impedance	≤ 600 Ω (I output)
Refresh cycle	< 1 s (per NAMUR NE 89)
General Specifications	
Nominal supply voltage U_s	8 ... 30 V (power derived from the output circuit)
Measuring span min.	50 K
Transmission error	≤ 0.1 % at full measuring span
Transmission error of the preset measuring span	((40 K/preset measuring span [K]) + 0.1)%
Temperature coefficient	≤ 0.02 %/K
Conformity marking	CE
Standards/specifications	EN 61010-1; EN 61326-1; EN 50121-3-2; EN 61373
Environmental Requirements	
Ambient operating temperature	-25 ... +70 °C
Storage temperature	-40 ... +85 °C
Safety and Protection	
Test voltage (input/output/supply)	3 kV (AC); 50 Hz; 1 min
Protection type	IP20
Connection and Mounting Type	
Connection technology	Push-in CAGE CLAMP®
Conductor range	
Solid	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Fine-stranded	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Dimensions and Weight	
Dimensions (mm) W x H x D	6 x 97.8 x 94; height from upper-edge of DIN-rail
Weight	39 g

857-815

DIP Switch Adjustability

● = ON

DIP Switch S1

Sensor Connection		Sensor Type			Output Signal		N. C.				Measuring Range Underflow	Measuring Range Overflow	Wire Break	Short Circuit
1	2	3	4	5	6	7	8	9	10					
	2-wire			Pt100	4 ... 20 mA						Lower limit of output range -5 % *	Upper limit of output range +2.5 % *	Upper limit of output range +5 % *	Lower limit of output range -12.5 % *
●	3-wire	●		Pt200	● 20 ... 4 mA									
	4-wire		●	Pt500							Lower limit of output range	Upper limit of output range +2.5 %	Upper limit of output range +5 %	Lower limit of output range
●	2-wire	●	●	Pt1000					●					
				1 kΩ							Lower limit of output range	Upper limit of output range	Upper limit of output range +5 %	Upper limit of output range +5 %
			●	4.5 kΩ						●				
										●	Lower limit of output range	Upper limit of output range	Lower limit of output range	Lower limit of output range

*per NAMUR NE 43

DIP Switch S2

Output Signal Start Temperature				Output Signal End Temperature																																
1	2	3	4	°C	°F	5	6	7	8	9	10	°C	°F	5	6	7	8	9	10	°C	°F	5	6	7	8	9	10	°C	°F							
				0	32							100	212						●	75	167						●	210	410				●	●	475	887
●				-200	-328	●						0	32	●					●	80	176	●					●	220	428	●			●	●	500	932
	●			-175	-283		●					5	41		●				●	85	185		●				●	230	446		●		●	●	525	997
●	●			-150	-238	●	●					10	50	●	●				●	90	194	●	●				●	240	464	●	●		●	●	550	1022
		●		-125	-193			●				15	59			●			●	95	203			●			●	250	482			●	●	575	1067	
●	●	●		-100	-148	●	●					20	68	●	●	●			●	100	212	●	●				●	260	500	●	●	●	●	●	600	1112
	●	●		-90	-130		●	●				25	77		●	●			●	110	230	●	●				●	270	518	●	●	●	●	●	625	1157
●	●	●		-80	-112	●	●	●				30	86	●	●	●			●	120	248	●	●	●			●	280	536	●	●	●	●	●	650	1202
			●	-70	-94				●			35	95						●	130	266					●	●	290	554			●	●	●	675	1247
●			●	-60	-76	●			●			40	104	●					●	140	284	●				●	●	300	572	●		●	●	●	700	1292
	●		●	-50	-58		●		●			45	113		●				●	150	302		●			●	●	325	617		●		●	●	725	1337
●	●		●	-40	-40	●	●		●			50	122	●	●				●	160	320	●	●			●	●	350	662	●	●		●	●	750	1382
		●	●	-30	-22			●	●			55	131						●	170	338					●	●	375	707			●	●	●	775	1427
●		●	●	-20	-4	●		●	●			60	140	●		●	●		●	180	356	●		●	●		●	400	752	●		●	●	●	800	1472
	●	●	●	-10	14		●	●	●			65	149		●	●	●		●	190	374		●	●	●		●	425	797		●	●	●	●	825	1517
●	●	●	●	0	32	●	●	●				70	158	●	●	●	●		●	200	392	●	●	●			●	450	842	●	●	●	●	●	850	1562

The minimum distance from the start temperature to the end temperature may not fall short of 50K degrees on the Celsius (C) scale or 122K degrees on the Fahrenheit (F) scale.

Default Settings

All DIP switches are in "OFF" position for delivery.	
Sensor connection	2-wire
Sensor type	Pt100
Start temperature	0 °C
End temperature	100 °C
Output signal	4 ... 20 mA
Measuring range underflow	3.8 mA
Measuring range overflow	20.5 mA
Wire break	21 mA
Short circuit	3.5 mA

JUMPFLEX® Signal conditioner

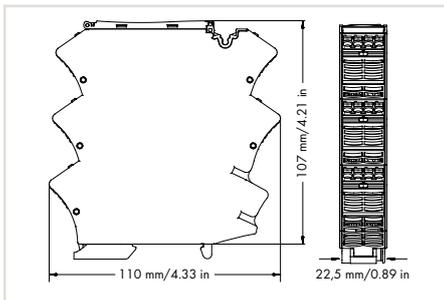
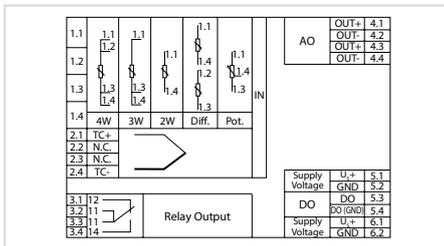
RTD TC Temperature Signal Conditioner; Analog

2857 Series



JUMPFLEX® RTD TC Temperature Signal Conditioner; analog

Item No.	Pack. Unit
2857-535	1



The RTD TC temperature signal conditioner for RTD sensors, potentiometers, resistors and thermocouples monitors and reports signals of up to two switching thresholds. The sensor and status information that is collected is also converted to an analog standard signal.

Features:

- A relay with a changeover contact reacts to configured measurement range limits (switching ON/OFF delay and threshold value switch function configurable with up to two threshold values).
- Configurable Pt factor
- Adjustable software filter
- Input/output response simulation via the interface configuration display
- Input of customer-specific sensors via the interface configuration software
- Safe 3-way isolation with 3 kV test voltage per EN 61010-1
- Analog unipolar/bipolar signals (current/voltage) at output
- Additional digital signal output for configured measurement range limits
- Adjustable transfer characteristic

Specialty functions:



Configuration via:



Overview of icons, see page 112!

Technical Data

Configuration

Configuration

DIP switch; interface configuration software; interface configuration app; configuration display

Input

RTD Input

Input signal

RTD sensors; potentiometers; resistors

Sensor types

Pt10 ... Pt2000 (expandable)

Sensor connection

2-wire; 3-wire; 4-wire; differential; potentiometer

Sensor power supply

< 0.5 mA

Measurement range

-200 ... +850 °C; 0 ... 10 kΩ

TC Input

Input signal

Thermocouples

Sensor types

Thermocouple type J, K, E, R, N, S, T, B, C

Type J: -210 ... +1200 °C;

Type K: -200 ... +1372 °C;

Type E: -200 ... +1000 °C;

Type R: +250 ... +1768 °C;

Type N: -200 ... +1300 °C;

Type S: -50 ... +1664 °C;

Type T: -200 ... +400 °C;

Type B: +250 ... +1820 °C;

Type C: 0 ... +2320 °C

ON/OFF (Default: ON)

3 K (2 K typ.)

Measurement ranges

Cold junction compensation

Cold junction error

Output

Output (Analog)

Output signal (current)

-24 ... +24 mA

Output signal (voltage)

-12 ... +12 V

Load impedance (I output)

≤ 600 Ω

Load impedance (U output)

≥ 2 kΩ

Output (Digital)

Switching voltage (max.)

Supply voltage applied: -0.3 V

Max. continuous current

100 mA (no internal restriction)

Number of switching thresholds

1 or 2

Rise/fall delay time

0 ... 60 s

Transmission Input – Output (Analog)

Measuring span min.

Input RTD: 50 K (50 Ω); Input TC: 100 K

Transmission error

≤ 0.1 % with full measurement range

Transmission error for the set measuring range

≤ (100 K/set measurement range [K]) %

Relay Output

Contact Type

1 changeover contact (1 u)

Max. permissible switching voltage

250 VAC

Max. continuous current (terminal blocks in a row)

6 A (up to 60 °C / 3 A (60 ... 70 °C))

Dielectric strength, open contact

1 kVrms

Number of switching thresholds

1 or 2

Rise/fall delay time

0 ... 60 s

General Specifications

Nominal supply voltage U_s

24 VDC

Supply voltage range

9.6 ... 31.2 VDC

Current input (at 24 VDC)

≤ (70 mA + IDO)

Measurement error

< ±1 K

Temperature coefficient

≤ 0.01%/K

Safety and Protection

Test voltage (input/output/supply)

3 kV (AC); 50 Hz; 1 min

Protection type

IP20

Safe isolation (input/relay contact/output/supply)

EN 61010-1

Phase/neutral conductor voltage

250 VAC/VDC

Overvoltage category

II

Pollution degree

2

Environmental Requirements	
Ambient temperature	-40 ... +70 °C
Storage temperature	-40 ... +85 °C
Relative humidity	5 ... 95 % (non-condensing)
Elevation above sea level	2000 m (max.)
Connection and Mounting Type	
Connection technology	Push-in CAGE CLAMP® (picoMAX® 5.0)
Conductor range	
Solid	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Dimensions and Weight	
Dimensions (mm) W x H x D	22.5 x 107 x 110; height from upper-edge of DIN-rail
Weight	128 g
Standards and Specifications	
Standards/specifications	EN 61326-2-3; EN 61010-1
EMC	EN 61000-6-2; EN 61000-6-3

JUMPFLEX® Signal Conditioner

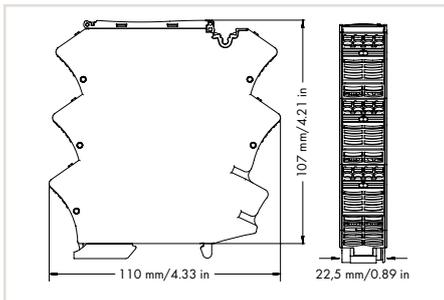
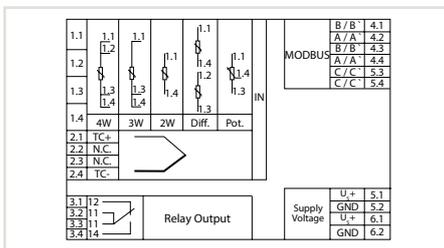
RTD TC Temperature Signal Conditioner; Serial

2857 Series



JUMPFLEX® RTD TC Temperature Signal Conditioner; serial

Item No.	Pack. Unit
2857-535/000-001	1



The RTD TC temperature signal conditioner for RTD sensors, potentiometers, resistors and thermocouples monitors and reports signals of up to two switching thresholds. The sensor and status information that is collected is also made available to a higher-order device (e.g., a PLC) via bus connection.

Features:

- A relay with a changeover contact reacts to configured measurement range limits (switching ON/OFF delay and threshold value switch function configurable with up to two threshold values).
- Configurable Pt factor
- Adjustable software filter
- Input/output response simulation via the interface configuration display
- Input of customer-specific sensors via the interface configuration software
- Safe 3-way isolation with 3 kV test voltage per EN 61010-1
- Output-end RS-485 interface with MODBUS protocol
- Terminating resistor can be adjusted at output end
- Adjustable transfer characteristic

Specialty functions:



Configuration via:



Technical Data

Configuration	
Configuration	Interface configuration software; interface configuration app; configuration display; rotary encoder switch
Input	
RTD Input	
Input signal	RTD sensors; potentiometers; resistors
Sensor types	Pt10 ... Pt2000 (expandable)
Sensor connection	2-wire; 3-wire; 4-wire; differential; potentiometer
Sensor power supply	< 0.5 mA
Measurement range	-200 ... +850 °C; 0 ... 10 kΩ
TC Input	
Input signal	Thermocouples
Sensor types	Thermocouple type J, K, E, R,N, S, T, B, C
	Type J: -210 ... +1200 °C; Type K: -200 ... +1372 °C; Type E: -200 ... +1000 °C; Type R: +250 ... +1768 °C; Type N: -200 ... +1300 °C; Type S: -50 ... +1664 °C; Type T: -200 ... +400 °C; Type B: +250 ... +1820 °C; Type C: 0 ... +2320 °C
Measurement ranges	
Cold junction compensation	ON/OFF (Default: ON)
Cold junction error	3 K (2 K typ.)
Output	
MODBUS Output	
Protocol/Interface	Modbus RTU via RS-485; 2-wire
Number of subscribers	Max. 64
Transmission Input – Output (Analog)	
Measuring span min.	Input RTD: 50 K (50 Ω); Input TC: 100 K
Transmission error	≤ 0.1 % with full measurement range
Transmission error for the set measurement range	≤ (100 K/set measurement range [K]) %
Relay Output	
Contact type	1 changeover contact (1 u)
Max. permissible switching voltage	250 VAC
Max. continuous current (terminal blocks in a row)	6 A (up to 60 °C / 3 A (60 ... 70 °C))
Dielectric strength, open contact	1 kV _{rms}
Number of switching thresholds	1 or 2
Rise/fall delay time	0 ... 60 s
General Specifications	
Nominal supply voltage U _s	24 VDC
Supply voltage range	9.6 ... 31.2 VDC
Current input (at 24 VDC)	50 mA
Measurement error	< ±1 K
Temperature coefficient	≤ 0.01% / K
Safety and Protection	
Test voltage (input/output/supply)	3 kV (AC); 50 Hz; 1 min
Protection type	IP20
Safe isolation (input/relay contact/output/supply)	EN 61010-1
Phase/neutral conductor voltage	250 VAC/DC
Oversvoltage category	II
Pollution degree	2

Overview of icons, see page 112!

Environmental Requirements	
Ambient temperature	-40 ... +70 °C
Storage temperature	-40 ... +85 °C
Relative humidity	5 ... 95 % (non-condensing)
Elevation above sea level	2000 m (max.)
Connection and Mounting Type	
Connection technology	Push-in CAGE CLAMP® (picoMAX® 5.0)
Conductor range	
Solid	0.2 ... 2.5 mm² / 24 ... 12 AWG
Fine-stranded	0.2 ... 2.5 mm² / 24 ... 12 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Dimensions and Weight	
Dimensions (mm) W x H x D	22.5 x 107 x 110; height from upper-edge of DIN-rail
Weight	128 g
Standards and Specifications	
Standards/specifications	EN 61326-2-3; EN 61010-1
EMC	EN 61000-6-2; EN 61000-6-3

Plug-In Current Transformers with CAGE CLAMP® Connection 855 Series



Short description:

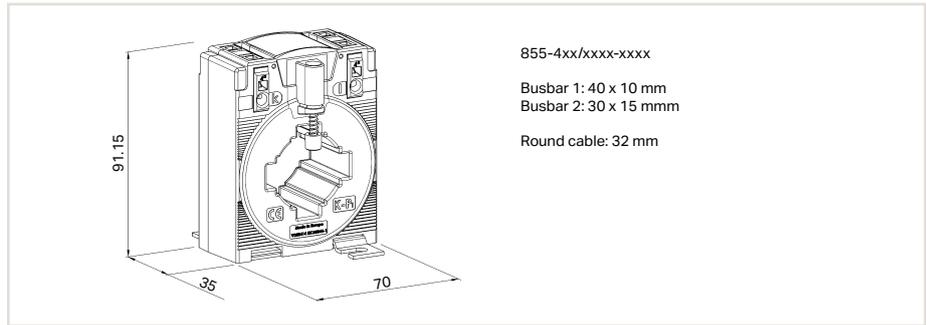
The 855 Series Plug-In Current Transformers are inductive, single-conductor current transformers, that function according to the transformer principle. Due to the measurement principle used, these current transformers are exclusively designed for AC network applications.

Features:

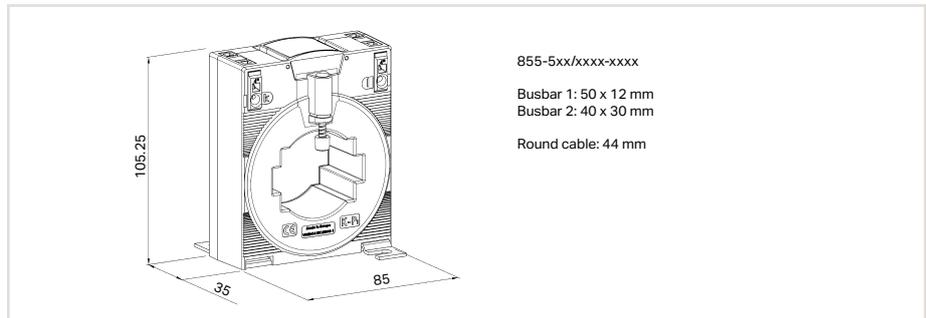
- Screwless CAGE CLAMP® connection technology
- Several mounting options available
- Vibration- and shock-resistant
- High mechanical retention forces
- High current-carrying capacity
- Continuous overload of 120 % the nominal primary current
- Low-voltage current transformer for operating voltages up to 1.2 kV
- Can be used in 690 V power networks
- UL recognized components

Technical Data

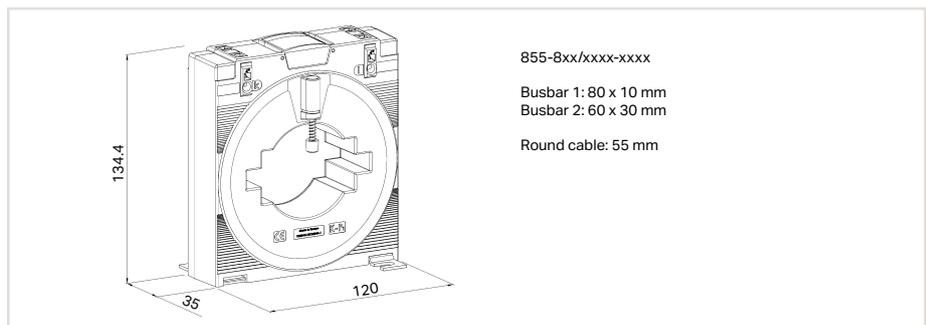
Input	
Rated continuous thermal current I_{cth}	$1.2 \times I_N$
Rated short-time thermal current I_{th}	$60 \times I_N$ (max. 100 kA); 1 s
Operating voltage U_m max.	1.2 kV _{rms}
Rated frequency	50 ... 60 Hz
Overcurrent limiting factor	FS5 or FS10 (type dependent; see type plate inscription)
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 61869-1; EN 61869-2
UL (Recognized Components)	E356480
Environmental Requirements	
Ambient operating temperature	-5 ... +50 °C
Storage temperature	-25 ... +70 °C
Operating altitude max.	1000 m
Safety and Protection	
Test voltage	6 kV _{rms} AC / 50 Hz / 1 min
Insulation class	E
Connection	
Connection technology	CAGE CLAMP®
Conductor range	0.08 ... 4 mm ² / 28 ... 12 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch



Plug-In Current Transformer	Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	Item No.	Pack. Unit
	250 A	1 A	5 VA	1	855-401/250-501	1



Plug-In Current Transformer	Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	Item No.	Pack. Unit
	400 A	1 A	10 VA	1	855-501/400-1001	1
	600 A	1 A	10 VA	1	855-501/600-1001	1
	800 A	1 A	10 VA	1	855-501/800-1001	1



Plug-In Current Transformer	Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	Item No.	Pack. Unit
	1000 A	1 A	10 VA	1	855-801/1000-1001	1

Current and Voltage Tap for 95 mm² High-Current Through Terminal Block (285-195) 855 Series



Current and voltage tap for 95 mm² high-current through terminal block (285-195)

Item No.	Pack. Unit
855-951/250-000	1

Short description:

The 855-951/250-000 Current and Voltage Tap for 95 mm² high-current through terminal block provides the ideal basis for successful energy management, because current and voltage are required wherever electrical power is measured. A combination of current transformer and voltage tap, the 855-951 can quickly and easily be inserted into the jumper slot of the 95 mm² high-current through terminal block (285-195).

An integrated fuse provides protection for energy measurement devices connected in the downstream circuit. An integrated current transformer (conversion ratio: 250 A/1 A) allows precise current measurement per EN 61869-2 (accuracy class: 0.5).

The current output connectors are marked with S1 (black) and S2 (red). Both termination and removal of fine-stranded conductors is performed via push-buttons. The 5-pole configuration (2 x S1 and 3 x S2) provides the following advantages:

- Current transformer (S1 and S2) can be short circuited via jumper (2000-402)
- Direct 'Y' point jumper on current transformer

The voltage is connected using a redundant terminal block.

Additionally, the current and voltage tap can be marked either using continuous marking strips or via WMB Multi Marking System.

Features:

- Power data can be directly tapped into the power supply
- Easy installation – simply insert the tap into the jumper slot of the 95 mm² high-current through terminal block (285-195)
- Integrated 250 A/1 A current transformer
- Accuracy class: 0.5
- Fuse-protected voltage path

Technical Data

Input (current transformer)	
Primary rated current I_{pr}	250 A
Rated continuous thermal current I_{cth}	250 A
Rated short-time thermal current I_{tn}	15 kA / 1 s
Rated surge current I_{dyn}	37.5 kA
Rated frequency f_r	50 ... 60 Hz
Highest voltage for equipment U_m	0.72 kV
Rated insulation level	3 kV
Output (current transformer)	
Secondary rated current I_{sr}	1 A
Accuracy class	0.5
Rated power S_r	0.2 VA
Output (voltage tap)	
Rated voltage	690 VAC
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (SIBA Art. No. 7008913.2)
Safety and Protection	
Protection type	IP20
Connection and Mounting Type	
Feedthrough for measurement conductor	16 mm Ø (max.) Current output: WAGO 250 Series Voltage output: WAGO 2624 Series
Connection technology	Current output: 0.2 ... 1.5 mm ² / 24 ... 10 AWG Voltage output: 0.2 ... 4 mm ² / 24 ... 14 AWG
Conductor range	Current output: 8 ... 9 mm / 0.31 ... 0.35 inch Voltage output: 10 ... 12 mm / 0.39 ... 0.47 inch
Strip length	via jumper slot of the 2-conductor high-current through terminal block (285-195)
Mounting type	
Dimensions and Weight	
Dimensions (mm) W x H x D	25 x 73 x 94
Weight	
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 61869-2

Voltage Tap 855 Series



Technical Data

Rated voltage	400 VAC
Fuse	2 A; 450 V; F; 70 kA; 5 x 25 mm (SIBA Fuse, Item No. 7008913.2)
Busbar thickness (max.)	15 mm (855-8015 only)
Busbar thickness (min.)	4 mm (855-8015 only)
Connection technology	Push-in CAGE CLAMP® (WAGO 2724 Series)
Conductor range	
Solid	0.2 ... 6 mm ² / 24 ... 10 AWG
Fine-stranded	0.2 ... 6 mm ² / 24 ... 10 AWG
Strip length	10 ... 12 mm / 0.39 ... 0.47 inch
Standards	IEC 60947-7-3

Voltage tap; with M6 mount

Item No.	Pack. Unit
855-8006	1

Voltage tap; with M8 mount

Item No.	Pack. Unit
855-8008	1

Voltage tap; with clamp mount

Item No.	Pack. Unit
855-8015	1

WAGO's voltage taps serve as busbar taps for measuring L- or N-conductors and are equipped with an integrated SIBA fuse with indicator. The built-in fuse is located directly above the voltage-carrying busbar. In the event of an overload or short circuit fault, the downstream unit is safely disconnected before major damage occurs.

The voltage taps can be mounted directly on the busbar. Depending on the model, mounting is performed via M6 or M8 screw, or with a clamp and Allen screw. Clamp mount via Allen screw is performed using an insulated Allen wrench and provides an excellent contact between the busbar and the fuse. This ensures high operational safety and short-circuit protection.

The measuring line is connected via Push-in CAGE CLAMP®, the universal connection technology for all conductor types that provides the simplicity of push-in terminations. Rigid conductors, such as solid, stranded and ferruled, fine-stranded conductors can be terminated by simply pushing them in – no operating tool needed. The connection unit with fuse and Push-in CAGE CLAMP® can be rotated ($\pm 120^\circ$). This creates additional added value in order to lead the subsequent wiring into the cable channel in a targeted manner.

In addition, the voltage taps can be labeled with two different marking options.

Features:

- Fuse-protected voltage tap for measurement purposes
- Safe protection through integrated fuse with indicator (measuring line and measurement device)
- WAGO Push-in CAGE CLAMP® connection technology
- WAGO labelling options (WMB markers or marking strips)
- Mounting via M6/M8 screw or via clamp with Allen wrench

Accessories

Item No.	Pack. Unit
855-8000	1

Hex wrench; with partially insulated shaft;
SW 6.0 x 100

Switched-Mode Power Supply; 1-Phase

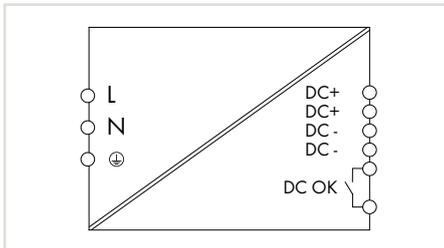
EPSITRON® CLASSIC Power

787 Series



EPSITRON® Switched-Mode Power Supply;
CLASSIC Power; 1-phase; output: 24 VDC/10 A;
with coated PCBs

Item No.	Pack. Unit
787-1632/000-070	1



Features:

- Switched-mode power supply
- Natural convection cooling when horizontally mounted
- Enclosed for use in control cabinets
- Integrated TopBoost, enabling secondary-side protection via wire breakers
- DC OK contact
- Suitable for both parallel and series operation
- Electrically isolated output voltage (SELV) per EN 60950-1/UL 60950-1
- Coated PCBs (coating: Bectron PL 1104 or Voltatex 2010), resistant to flowing mixed gas per ISA S71.04:1985, G3 Group A

Technical Data

Input	
Nominal input voltage $U_{i, nom}$	100 ... 240 VAC
Input voltage range	85 ... 264 VAC; 120 ... 372 VDC
Input voltage derating	-2.5 % (< 100 VAC)
Frequency	44 ... 66 Hz; 0 Hz
Input current I_i	1.25 A (230 VAC); 2.74 A (100 VAC)
Inrush current	< 30 A
Mains failure hold-up time	17 ms (230 VAC); 15 ms (100 VAC)
Output	
Nominal output voltage $U_{o, nom}$	24 VDC (SELV)
Output voltage range	23 ... 28.5 VDC; adjustable
Output current I_o	10 A at 24 VDC
Factory preset	24 VDC
Adjustment accuracy	< 1 %
Residual ripple	50 mV (peak-to-peak) typ.
Current limitation	1.1 x I_o typ.
Overload behavior	Constant current
Operational indication	Green LED (U_o)
Signaling	DC OK contact (Make contact; max. 30 V AC/DC; 1 A)
Efficiency/Power Losses	
Efficiency	91 % typ.
Power loss P_v	6.6 W (230 VAC; no load), 24.4 W (230 VAC; nominal load)
Power loss P_v max.	31.3 W typ. (100 VAC / 24 VDC; 10 A)
Fuse Protection	
Internal fuse	T 6.3 A / 250 V
External fuse	Circuit breakers 10 A, 16 A; B or C characteristic; an external DC fuse is required for the DC input voltage
Environmental Requirements	
Ambient operating temperature	-25 ... +70 °C; Device start at -40 °C type-tested
Storage temperature	-25 ... +85 °C
Relative humidity	5 ... 96 % (coated PCBs, no condensation permissible)
Derating	-5 %/K (> 60 °C; 196 ... 264 VAC); -2.5 %/K (> 50 °C; 85 ... 195 VAC)
Degree of pollution	2 (per EN 50178)
Climatic category	3K3 (per EN 60721)
Safety and Protection	
Test voltage PRI-SEC/PRI-GND/SEC-GND	4,2 kV DC / 2,2 kV DC / 0,7 kV DC
Protection class	I
Degree of protection	IP20 per EN 60529
Overvoltage category	II
Overvoltage protection	Varistor (input side); internal protective circuit; < 40 VDC (output side in case of error)
Short circuit protection	Yes
No-load proof	Yes
Feedback voltage	Max. 35 VDC
Parallel operation	Yes
Series connection	Yes
MTBF	> 500,000 h (per IEC 61709)
Connection and Mounting Type	
Wire connection	Input/Output/Signaling: WAGO 721 Series
Cross sections	Input/Output/Signaling: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip lengths	Input/Output/Signaling: 8 ... 9 mm / 0.31 ... 0.35 inch
Mounting type	DIN-rail mount (EN 60715)
Dimensions and Weight	
Dimensions (mm) W x H x L	55 x 127 x 172 (incl. female connector); Length from upper-edge of DIN-rail
Weight	930 g
Standards and Specifications	
Standards/specifications	EN 60950-1; EN 61204-3; UL 60950-1; UL 508; GL

Switched-Mode Power Supply; 1-Phase

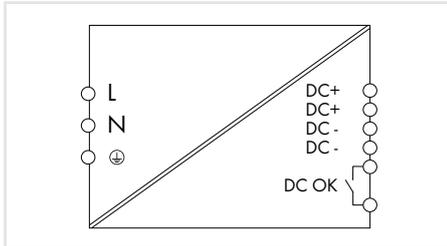
EPSITRON® CLASSIC Power

787 Series



EPSITRON® Switched-Mode Power Supply;
CLASSIC Power; 1-phase; output: 48 VDC/10 A;
with coated PCBs

Item No.	Pack. Unit
787-1635/000-070	1



Features:

- Primary switch mode power supply unit
- Suitable for protection class I equipment
- Natural convection cooling when horizontally mounted
- Enclosed for use in switchgear cabinets
- Integrated TopBoost, enabling secondary-side protection via wire breakers
- DC OK contact
- Suitable for both parallel and series operation
- Electrically isolated output voltage (SELV) acc. to EN 60950-1/UL 60950-1
- Coated PCBs (coating: Bectron PL 1104 or Voltatex 2010), resistant to flowing mixed gas per ISA S71.04:1985, G3 Group

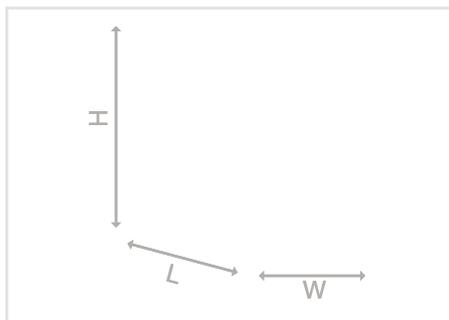
Technische Daten

Input	
Nominal input voltage $U_{I,nom}$	100 ... 240 VAC
Input voltage range	85 ... 264 VAC; 120 ... 372 VDC
Input voltage derating	-2.5 % (< 100 VAC)
Frequency	47 ... 63 Hz; 0 Hz
Input current I_I	2.22 A (240 VAC); 5.15 A (100 VAC)
Inrush current	< 30 A
Mains failure hold-up time	20 ms (230 VAC); 20 ms (100 VAC)
Output	
Nominal output voltage $U_{O,nom}$	48 VDC (SELV)
Output voltage range	40 ... 56 VDC; adjustable
Output current I_O	10 A at 48 VDC
Factory preset	48 VDC
Adjustment accuracy	< 1 %
Residual ripple	80 mV (peak-to-peak) typ.
Current limitation	1.1 x I_O typ.
Overload behavior	Constant current
Operational indication	Green LED (U_O)
Signaling	DC OK contact (Make contact; max. 30 V AC/DC; 1 A)
Efficiency/Power Losses	
Efficiency	93 % typ.
Power loss P_V	11.7 W (230 VAC; no load); 36.3 W (230 VAC; nominal load)
Power loss $P_{V,max}$	64.9 W typ. (100 VAC / 48 VDC; 10 A)
Fuse Protection	
Internal fuse	T 10 A / 250 V
External fuse	Circuit breakers 10 A, 16 A; B or C characteristic; An external DC fuse is required for the DC input voltage
Environmental Requirements	
Ambient operating temperature	-25 ... +70 °C; Device start at -40 °C (type-tested)
Storage temperature	-25 ... +85 °C
Relative humidity	30 ... 85 % (no condensation permissible)
Derating	-5 %/K (> 60 °C; 196 ... 264 VAC); -2.5 %/K (> 50 °C; 85 ... 195 VAC)
Degree of pollution	2 (per EN 50178)
Climatic category	3K3 (per EN 60721)
Safety and Protection	
Test voltage PRI-SEC/PRI-GND/SEC-GND	4.2 kV DC / 2.2 kV DC / 0.7 kV DC
Protection class	I
Degree of protection	IP20 per EN 60529
Overvoltage category	II
Overvoltage protection	Varistor (input side); internal protective circuit; < 60 VDC (output side in case of an error)
Short circuit protection	Yes
No-load proof	Yes
Feedback voltage	Max. 63 VDC
Parallel operation	Yes
Series connection	Yes
MTBF	> 500,000 h (per IEC 61709)
Connection and Mounting Type	
Wire connection	Input/Signaling: WAGO 721 Series Output: WAGO 831 Series
Cross sections	Input/Signaling: 0.08 ... 2.5 mm ² / 28 ... 12 AWG Output: 0.5 ... 10 mm ² / 20 ... 8 AWG
Strip lengths	Input/Signaling: 8 ... 9 mm / 0.31 ... 0.35 inch Output: 13 ... 15 mm / 0.51 ... 0.59 inch
Mounting type	DIN-rail mounting (EN 60715)
Dimensions and Weight	
Dimensions (mm) W x H x L	95 x 127 x 170; Length from upper-edge of DIN-Rail
Weight	1600 g
Standards and Specifications	
Standards/specifications	EN 60950-1; EN 61204-3; UL 60950-1; UL 508; GL* (* pending)

Switched-Mode Power Supply, 3-Phase

EPSITRON® ECO Power

787 Series

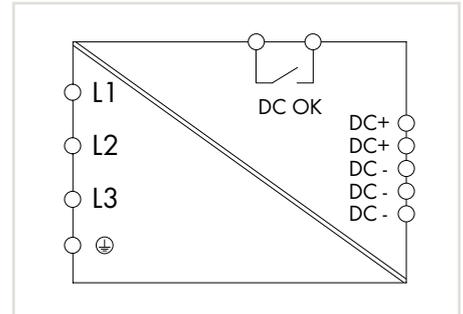
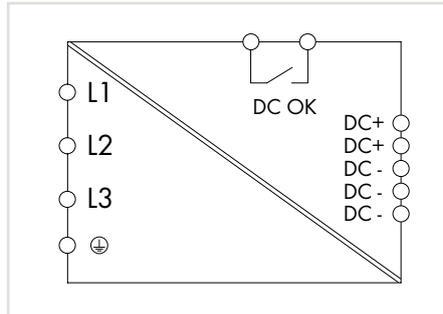


Features:

- Economical power supply for standard applications
- Natural convection cooling when horizontally mounted
- Enclosed for use in control cabinets
- Fast and tool-free termination via lever-actuated terminals with push-in connection technology
- DC OK contact
- Parallel operation
- Electrically isolated output voltage (SELV) per EN 60950-1/UL 60950-1; PELV per EN 60204-1

Technical Data

Input	
Nominal input voltage $U_{i, nom}$	400 ... 480 VAC
Input voltage range	325 ... 575 VAC; 560 ... 700 VDC
Frequency	47 ... 63 Hz
Input peak current	< 30 A (at 400 VAC)
Discharge current	< 3.5 mA
Power factor	≥ 0.7 (at 400 VAC)
Mains failure hold-up time	> 10 ms (at 400 VAC and nominal load)
Output	
Nominal output voltage $U_{o, nom}$	24 VDC (default), SELV
Output voltage range	24 ... 28 VDC adjustable
Adjustment accuracy	$\pm 1\%$
Residual ripple	< 150 mVpp
Overload behavior	Constant power (in overload range: 1.05 ... 1.4 x Io); shutdown and automatic restart in the event of a short circuit
Fuse Protection	
Recommended backup fuse	Power circuit breakers ≥ 10 A; B, C characteristics
Oversvoltage protection	Via varistor at primary circuit
Environmental Requirements	
Ambient temperature	-25 ... +70 °C
Storage temperature	-40 ... +85 °C
Relative humidity	10 ... 95 %
Climatic category	3K3 (per EN 60721)
Derating	-2 %/K (> +45 °C)
Pollution degree	2
Oversvoltage category	III
Temperature coefficient	$\pm 0.03\%$ /K (at 0 ... +50 °C)
MTBF	> 200,000 h
Safety and Protection	
Protection class	I
Protection type	IP20 per EN 60529
Short-circuit-protection	Yes
Open-circuit proof	Yes
Feedback voltage	30 V (max.)
Parallel operation	Yes
Series operation	Yes; max. 2 power supplies
Vibration resistance	1g (per EN 60068-2-6)
Shock resistance	15g (per EN 60068-2-27)
Isolation voltage	1.5 kVAC for input side and ground; 3.0 kVAC for input and output side; 0.5 kVAC for output side and ground; 0.5 kVAC for output side and DC OK contact per EN 60950-1
SELV	
Connection and Mounting Type	
Connection technology	CAGE CLAMP® (input/output); picoMAX® (signaling)
Conductor range	Input/output: 0.5 ... 6 mm ² / 20 ... 10 AWG Signaling: 0.2 ... 1.5 mm ² / 24 ... 14 AWG
Strip length	Input/output: 11 ... 12 mm / 0.43 ... 0.47 inch Signaling: 8 ... 9 mm / 0.31 ... 0.35 inch
Standards and Specifications	
Standards/specifications	CE; EN 60950-1; EN 61204-3; UL 60950*; UL 508* (*pending)



EPSITRON® Switched-Mode Power Supply; ECO Power; 3-phase; output: 24 VDC/20 A

Item No.	Pack. Unit
787-2742	1

EPSITRON® Switched-Mode Power Supply; ECO Power; 3-phase; output: 24 VDC/40 A

Item No.	Pack. Unit
787-2744	1

Specific Electrical Data

Input current I_i	3 x 1.2 A (at 400 VAC)
Nominal output P_{out}	480 W
Output current I_o	20 A (at 24 VDC)
Efficiency	≥ 90.5 % (400 VAC / 24 VDC / 20 A)
Power loss P_v	45 W typ. (at 400 VAC; 24 VDC, 20 A)
Internal fuse	3.15 A; slow; 500 VAC
Dimensions (mm) W x H x L	80 x 130 x 170; length from upper-edge of DIN-rail
Weight	1710 g

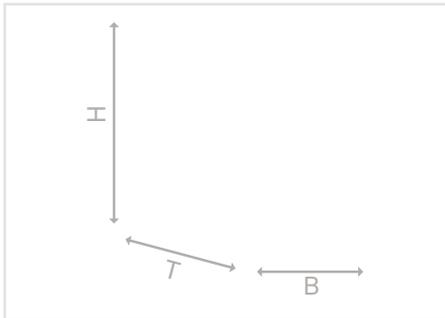
Input current I_i	3 x 2.5 A (at 400 VAC)
Nominal output P_{out}	960 W
Output current I_o	40 A (at 24 VDC)
Efficiency	≥ 91.5 % (400 VAC / 24 VDC / 40 A)
Power loss P_v	89 W typ. (at 400 VAC, 24 VDC, 40 A)
Internal fuse	6.3 A; slow; 500 VAC
Dimensions (mm) W x H x L	140 x 130 x 170; length from upper-edge of DIN-rail
Weight	2630 g

Input current I_i	3 x 2.5 A (at 400 VAC)
Nominal output P_{out}	960 W
Output current I_o	40 A (at 24 VDC)
Efficiency	≥ 91.5 % (400 VAC / 24 VDC / 40 A)
Power loss P_v	89 W typ. (at 400 VAC, 24 VDC, 40 A)
Internal fuse	6.3 A; slow; 500 VAC
Dimensions (mm) W x H x L	140 x 130 x 170; length from upper-edge of DIN-rail
Weight	2630 g

Switched-Mode Power Supply; 1-Phase

EPSITRON® ECO Power

787 Series



Features:

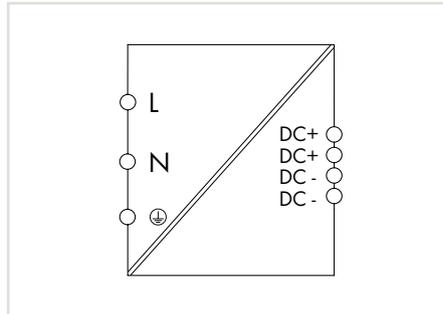
- Switched-mode power supply
- Natural convection cooling when horizontally mounted
- Enclosed for use in control cabinets
- Suitable for both parallel and series operation
- Electrically isolated output voltage (SELV) per EN 60950-1 and EN 60335-1; PELV per EN 60204
- DIN-35 rail mountable in different positions
- Direct installation on mounting plate via cable grip

Technical Data

Input	
Nominal input voltage $U_{i, \text{nom}}$	(100) 110 ... 240 VAC
Input voltage range	90 ... 264 VAC, 125 ... 375 VDC
Frequency	47 ... 63 Hz
Discharge current	< 3.5 mA
Inrush current	< 18 A
Mains failure hold-up time	> 10 ms at 230 VAC
Output	
Nominal output voltage $U_{o, \text{nom}}$	12 VDC (SELV)
Output voltage range	10 ... 14 VDC; adjustable
Factory preset	12 VDC
Adjustment accuracy	< 1 %
Residual ripple	< 150 mV (peak-to-peak)
Overload behavior	Constant power (in overload range: 1,05 ... 1,4 x I _o); shutdown and automatic restart in the event of a short circuit
Operation status indicator	Green LED (12 VDC OK)
Fuse Protection	
Recommended backup fusing	Circuit breakers B6, B10; An external DC fuse is required for the DC input voltage.
Environmental Requirements	
Ambient temperature	-20 ... +60 °C
Storage temperature	-25 ... +70 °C
Relative humidity	20 ... 90 % (no condensation permissible)
Overvoltage category	II
Pollution degree	2 (per EN 50178)
Climatic category	3K3 (per EN 60721)
Safety and Protection	
Test voltage Pri.-Sec./Pri.-GND/Sec.-GND	3 / 1.5 / 0.5 kVAC
Protection class	I
Protection type	IP20 per EN 60529
Overvoltage protection	Via varistor at primary circuit
Short-circuit-protected	Yes
Open-circuit-proof	Yes
Feedback voltage	14 VDC
Parallel operation	Yes
Series operation	Yes
MTBF	> 300,000 h (per IEC 61709)
Connection and Mounting Type	
Connection technology	CAGE CLAMP® (WAGO 236 Series)
Conductor range	0.08 ... 2.5 mm ² / 28 ... 12 AWG (12 AWG: THHN, THWN)
Strip length	6 ... 7 mm / 0.24 ... 0.28 inch
Mounting type	DIN-rail mount (EN 60715)
Standards and Specifications	
Standards/specifications	EN 60950, EN 61204-3, EN 60335, EN 61558-2-6, UL 508 * (*pending)



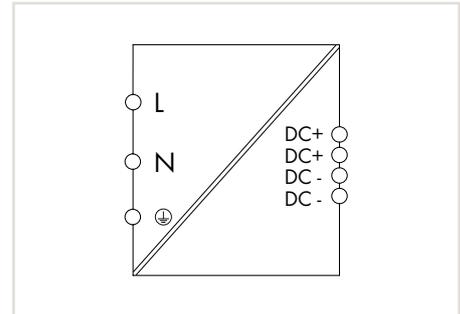
Similar to picture



EPSITRON® Switched-Mode Power Supply; ECO Power; 1-phase; Output: 12 VDC/2 A	
Item No.	Pack. Unit
787-1701	



Similar to picture



EPSITRON® Switched-Mode Power Supply; ECO Power; 1-phase; Output: 12 VDC/4 A	
Item No.	Pack. Unit
787-1711	

Specific Electrical Data

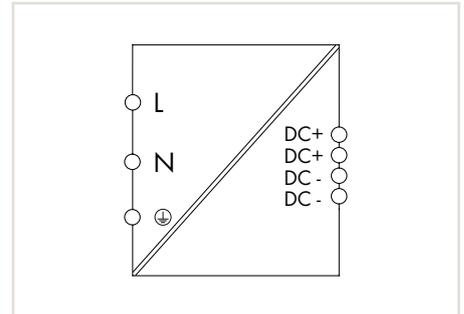
Input current I_i	0.7 A typ. at 100 VAC
Output current I_o	2 A at 12 VDC and 110 ... 240 VAC 1.6 A at 12 VDC and 100 ... 240 VAC
Efficiency	> 80 % (at 230 VAC and 2 ADC)
Internal fuse	F 1 A / 250 V
Derating	-4 %/K (> 45 °C)
Dimensions (mm) W x H x D	30 x 90 x 99; depth from upper-edge of DIN-rail
Weight	250 g
Installation width (as delivered)	30 mm

Input current I_i	1.8 A typ. at 100 VAC
Output current I_o	4 A at 12 VDC and 110 ... 240 VAC 3.2 A at 12 VDC and 100 ... 240 VAC
Efficiency	> 80 % (at 230 VAC and 4 ADC)
Internal fuse	F 2 A / 250 V
Derating	-4 %/K (> 45 °C)
Dimensions (mm) W x H x D	40 x 90 x 99; depth from upper-edge of DIN-rail
Weight	300 g
Installation width (as delivered)	40 mm

Input current I_i	1.8 A typ. at 100 VAC
Output current I_o	4 A at 12 VDC and 110 ... 240 VAC 3.2 A at 12 VDC and 100 ... 240 VAC
Efficiency	> 80 % (at 230 VAC and 4 ADC)
Internal fuse	F 2 A / 250 V
Derating	-4 %/K (> 45 °C)
Dimensions (mm) W x H x D	40 x 90 x 99; depth from upper-edge of DIN-rail
Weight	300 g
Installation width (as delivered)	40 mm



Similar to picture



EPSITRON® Switched-Mode Power Supply; ECO Power; 1-phase; Output: 12 VDC/8 A

	Item No.	Pack. Unit
	787-1721	1

Specific Electrical Data

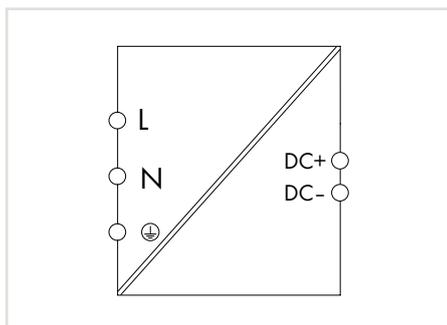
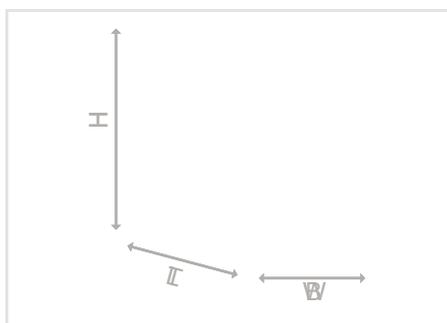
Input current I_i	3.0 A typ. at 100 VAC
Output current I_o	8 A at 12 VDC and 110 ... 240 VAC 6.4 A at 12 VDC and 100 ... 240 VAC
Efficiency	> 80 % (at 230 VAC and 8 ADC)
Internal fuse	F 3.15 A / 250 V
Derating	-3 %/K (> 45 °C)
Dimensions (mm) W x H x D	60 x 130 x 99; depth from upper-edge of DIN-rail
Weight	520 g
Installation width (as delivered)	60 mm

Switched-Mode Power Supply; 1-Phase; EPSITRON® IP67 Power 787 Series



Switched-mode power supply; 24 VDC; 4 A

Item No.	Pack. Unit
787-6716	1



Features:

- Switched-mode power supply with PowerBoost
- Low-profile, compact design
- Extremely robust, fully encapsulated housing (IP67)
- DC OK contact for output monitoring
- Active power factor correction
- High efficiency up to 92.3%
- Ambient operating temperature 85°C
- Suitable for both parallel and series operation

Technical Data

Input

Nominal input voltage $U_{I, nom}$	100 ... 240 VAC/DC
Input voltage range	90 ... 265 VAC/DC
Frequency	50 ... 60 Hz; $\pm 6\%$
Input current I_I	1.1 A at 100 VAC; 0.5 A at 250 VAC
Inrush current	< 9 A
Power factor	0.98
External backup fuse (max.)	10 A (T) in building installations

Output

Nominal output voltage $U_{O, nom}$	24 VDC $\pm 2\%$
Output current I_O	4 A
PowerBoost	6 A for 5 s; without voltage drop
Residual ripple	< 100 mV (peak-to-peak); < 20 mV _{rms}
Mains failure hold-up time	> 45 ms
Operation status indicator	Green LED (24 VDC OK); Red LED (overload)
Overload behavior	Constant current
Output power	96 W

Efficiency/Power Loss

Efficiency	92.3 % at 230 VAC
Power loss P_V	< 1 W (no load) / 7.9 W (nominal load)

Fuse Protection

Internal device protection	(T) 6.3 A
External backup fuse (max.)	(T) 20 A in building installations
Recommended external circuit breakers	4 ... 20 A; C characteristic

Environmental Requirements

Ambient temperature	-40 ... +85 °C
Storage temperature	-40 ... +85 °C
Relative humidity	4 ... 100 %
Derating	3.84 W/K (> 60 °C)
Climatic category	4K6 (per EN 60721)

Safety and Protection

Protection class	I
Protection type	IP67
Overvoltage protection	30 VDC typ. (per IEC 61131)
Short-circuit-protected	Yes
Feedback voltage	Max. 35 VDC
Parallel operation	Max. 3 devices
Series operation	Max. 2 devices
MTBF	> 960,000 h

Connection and Mounting Type

Connection technology	Input: 7/8"; 3-pole; Output: 7/8"; 5-pole
Mounting type	Screw mounting

Dimensions and Weight

Dimensions (mm) W x H x D	111 x 141 x 54
Weight	1.1 kg

Standards and Specifications

Standards/specifications	EN 60950; EN 61204-3; UL 508
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Accessories for EPSITRON® IP67 Power Supply Cable



Features:

- 7/8" screw connection: Industry-prove connection technology for a large selection of different conductors
- High degree of protection for safe field applications
- Vibration- and shock-resistant via integrated locking mechanism
- PUR coating

Technical Data

General Specifications	
Operating voltage	600 VAC/VDC
Operating current	9 A
Rated surge voltage	4 kV
Environmental Requirements	
Operating temperature	-25 ... +80 °C
Safety and Protection	
Degree of protection	IP67
Connection	
Connection technology	7/8" socket/plug; 3- and 5-pole
Cable diameter	7.4 mm ±0.2



Socket



Description	Length	Item No.	Pack. Unit
Supply cable; pre-assembled; 7/8"; 3-pole; straight socket; open-ended	3 m	787-6716/9310-030	1
Supply cable; pre-assembled; 7/8"; 3-pole; straight socket; open-ended	5 m	787-6716/9310-050	1
Supply cable; pre-assembled; 7/8"; 3-pole; straight socket; open-ended	10 m	787-6716/9310-100	1



Plug

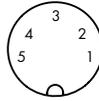


Description	Length	Item No.	Pack. Unit
Supply cable; pre-assembled; 7/8"; 5-pole; straight plug; open-ended	1.5 m	787-6716/9510-015	1
Supply cable; pre-assembled; 7/8"; 5-pole; straight plug; open-ended	3 m	787-6716/9510-030	1
Supply cable; pre-assembled; 7/8"; 5-pole; straight plug; open-ended	5 m	787-6716/9510-050	1

Accessories for EPSITRON® IP67 Power Connector



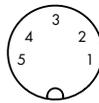
Plug



Description	Item No.	Pack. Unit
Connector; 7/8"; 5-pole; straight plug; clamping range: 6 ... 8 mm	787-6716/9500-000	1



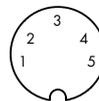
Plug



Description	Item No.	Pack. Unit
Connector; 7/8"; 5-pole; angled plug; clamping range: 6 ... 8 mm	787-6716/9600-000	1



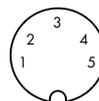
Socket



Description	Item No.	Pack. Unit
Connector; 7/8"; 5-pole; straight socket; clamping range: 6 ... 8 mm	787-6716/9700-000	1

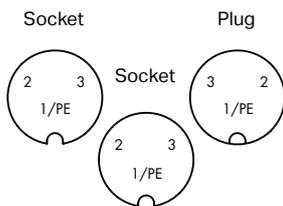


Socket

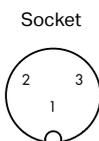


Description	Item No.	Pack. Unit
Connector; 7/8"; 5-pole; angled socket; clamping range: 6 ... 8 mm	787-6716/9800-000	1

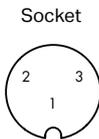
Accessories for EPSITRON® IP67 Power Connector



Description	Item No.	Pack. Unit
Connector; 7/8"; 3-pole; T-connector	787-6716/9000-1000	1

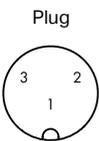


Description	Item No.	Pack. Unit
Connector; 7/8"; 3-pole; straight socket	787-6716/9300-000	1



Similar to illustration

Description	Item No.	Pack. Unit
Connector; 7/8"; 3-pole; angled socket	787-6716/9400-000	1



Description	Item No.	Pack. Unit
Connector; 7/8"; 3-pole; straight plug	787-6716/9100-000	1

Electronic Circuit Breaker (ECB)

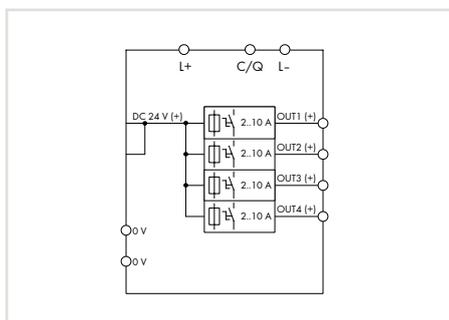
EPSITRON®

787 Series



EPSITRON® Electronic Circuit Breaker;
4-channel; 24 VDC / 4 x 10 A

Item No.	Pack. Unit
787-1664/000-080	1



Features:

- Space-saving electronic circuit breaker with 4 channels
- 1 ... 10 A nominal current, adjustable for each channel via sealable selector switch or via IO-Link interface
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and onsite diagnostics
- Time-delayed switching of channels
- Status message and current measurement for each channel via IO-link interface
- Each channel can be switched on/off separately via IO-link interface

Technical Data

Input	
Nominal input voltage $U_{i,nom}$	24 VDC
Input voltage range	18 ... 30 VDC
Output	
Nominal output voltage $U_{o,nom}$	4 x 24 VDC
Nominal current	Max. 4 x 10 ADC (1, 2, 4, 6, 10 A adjustable for each channel via selector switch; 1, 2, 3, 4, 6, 8, 10 A adjustable for each channel separately via IO-link interface)
Voltage drop	200 mV at 10 A
Trip time	Load-dependent (16 ms ... 100 s)
Switch-on capacity	> 50,000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent; min. 50 ms / max. 5 s)
Active current limitation	No
Operational indication	LED green (OK channel); LED red (tripped channel)
Signaling	4 x LED (green/red/orange)
Remote input	Switching on/off any number of channels via IO-link interface
Efficiency/Power Losses	
Efficiency	99 % (typ.)
Power loss P_v	1.3 W (stand-by) / 20 W (nominal load)
Fuse protection	
Internal fuse	15 AT per channel
Environmental Requirements	
Ambient operating temperature	-25 ... +70 °C
Storage temperature	-25 ... +85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	≥ +50 °C: see instruction manual
Safety and Protection	
Test voltage	500 VDC (terminals to enclosure)
Protection class	III
Reverse voltage protection	No
Degree of protection	IP20 per EN 60529
Overvoltage protection	Via 33 V suppressor diode at input
Feedback voltage	Max. 35 VDC
Series connection of several devices	Not permitted
Parallel operation of single channels	Not permitted
Connection and Mounting Type	
Connectors	Input (+): WAGO 831 Series Input (-), output, signaling: WAGO 721 series
Conductor range	Input (+): 0.5 ... 10 mm ² / 20 ... 8 AWG Input (-), output, signaling: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input (+): 13 ... 15 mm / 0.51 ... 0.59 inch Input (-), Output, signaling: 8 ... 9 mm / 0.31 ... 0.35 inch
Type of mounting	DIN-rail mounting (EN 60715)
Dimensions and Weight	
Dimensions (mm) W x H x L	45 x 90 x 115,5; Length from upper-edge of DIN-35 rail
Weight	170 g
Standards and Approvals	
Standards/Approvals	UL 508*; UL 2367*; GL*; EN 60950; EN 61000-6-2; EN 61000-6-3 (* pending)

Electronic Circuit Breaker (ECB)

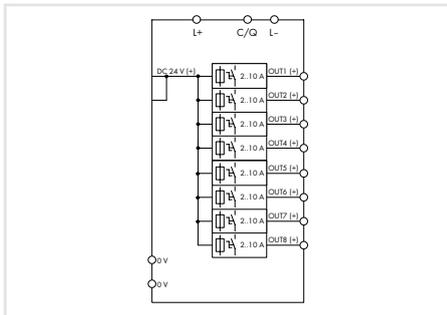
EPSITRON®

787 Series



EPSITRON® Electronic Circuit Breaker;
8-channel; 48 VDC / 8 x 10 A

Item No.	Pack. Unit
787-1668/000-080	1



Features:

- Space-saving electronic circuit breaker with 8 channels
- 1 ... 10 A nominal current, adjustable for each channel via sealable selector switch or via IO-Link interface
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and onsite diagnostics
- Time-delayed switching of channels
- Status message and current measurement for each channel via IO-link interface
- Each channel can be switched on/off separately via IO-link interface

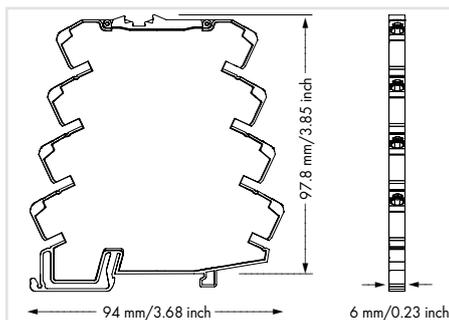
Technical Data

Input	
Nominal input voltage $U_{I,nom}$	24 VDC
Input voltage range	18 ... 30 VDC
Output	
Nominal output voltage $U_{O,nom}$	8 x 24 VDC
Nominal current	Max. 8 x 10 ADC (1, 2, 4, 6, 10 A adjustable for each channel via selector switch; 1, 2, 3, 4, 6, 8, 10 A adjustable for each channel separately via IO-link interface)
Voltage drop	200 mV at 10 A
Trip time	Load-dependent (16 ms ... 100 s)
Switch-on capacity	> 50,000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent; min. 50 ms / max. 5 s)
Active current limitation	No
Operational indication	LED green (OK channel); LED red (tripped channel)
Signaling	8 x LED (green/red/orange)
Remote input	Switching on/off any number of channels via IO-link interface
Efficiency/Power Losses	
Efficiency	99 % typ.
Power loss P_V	1.3 W (stand-by) / 20 W (nominal load)
Fuse protection	
Internal fuse	15 AT per channel
Environmental Requirements	
Ambient operating temperature	-25 ... +70 °C
Storage temperature	-25 ... +85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	≥ +50 °C: see instruction manual
Safety and Protection	
Test voltage	500 VDC (terminals to enclosure)
Protection class	III
Reverse voltage protection	No
Degree of protection	IP20 per EN 60529
Overvoltage protection	Via 33 V suppressor diode at input
Feedback voltage	Max. 35 VDC
Series connection of several devices	Not permitted
Parallel operation of single channels	Not permitted
Connection and Mounting Type	
Connectors	Input (+): WAGO 831 Series Input (-), output, signaling: WAGO 721 series
Conductor range	Input (+): 0.5 ... 10 mm ² / 20 ... 8 AWG Input (-), output, signaling: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input (+): 13 ... 15 mm / 0.51 ... 0.59 inch Input (-), Output, signaling: 8 ... 9 mm / 0.31 ... 0.35 inch
Type of mounting	DIN-rail mounting (EN 60715)
Dimensions and Weight	
Dimensions (mm) W x H x L	42 x 127 x 142,5; Length from upper-edge of DIN-35 rail
Weight	440 g
Standards and Approvals	
Standards/Approvals	UL 508*; UL 2367*; GL*; EN 60950; EN 61000-6-2; EN 61000-6-3 (* pending)

Electronic Circuit Breaker (ECB)

EPSITRON®

787 Series

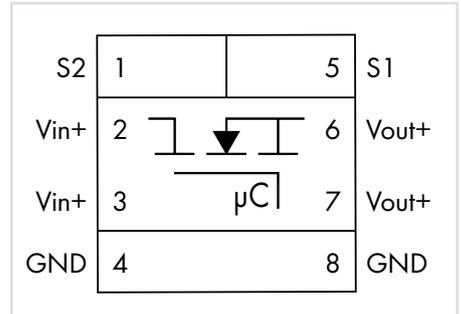
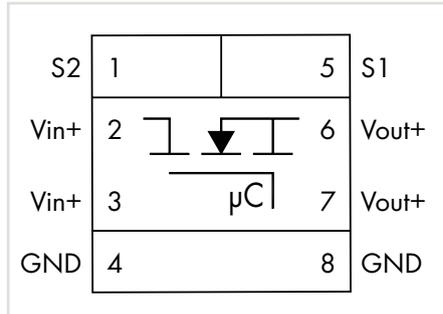


Features:

- 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 > 50,000 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 – as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total in-rush current thanks to time-delayed switching on during interconnected operation

Technical Data

Input	
Nominal input voltage $U_{i,nom}$	24 VDC
Input voltage range	18 ... 30 VDC
Output	
Nominal output voltage $U_{o,nom}$	$U_{o,nom}$ – voltage drop
Trip time	Load-dependent (4 ms ... 100 s)
Switch-on capacity	> 50000 μF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent; min. 200 ms/max. 500 ms)
Active current limitation	No
Status indication	LED (green/red/orange)
Remote input	18 ... 30 VDC signal; switches on/off and resets the channel
Fuse Protection	
Internal fuse	15 AT
Environmental Requirements	
Storage temperature	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permissible)
Derating	No derating
Safety and Protection	
Test voltage	500 VDC (bus modules to housing)
Protection class	III
Reverse voltage protection	No
Protection type	IP20 per EN 60529
Overvoltage protection	Via 33 V suppressor diode at input
Series connection of several devices	Not permitted
Parallel operation of single channels	Not permitted
Connection and Mounting Type	
Connection technology	Push-in CAGE CLAMP® (WAGO 857 Series)
Conductor range	Solid: 0.08 ... 2.5 mm ² / 28 ... 14 AWG Fine-stranded: 0.34 ... 2.5 mm ² / 22 ... 14 AWG
Strip length	9 ... 15 mm / 0.35 ... 0.39 inch
Mounting type	DIN-rail mount (EN 60715)
Dimensions and Weight	
Dimensions (mm) W x H x D	6 x 97.8 x 94; height from upper-edge of DIN-rail
Weight	40 g
Standards and Specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-1*; UL 2367*; GL* (*pending)



EPSITRON® Electronic Circuit Breaker;
1-channel; 24 VDC; 1 A; communication capability

EPSITRON® Electronic Circuit Breaker;
1-channel; 24 VDC; 2 A; communication capability

Item No.	Pack. Unit
787-2861/100-000	1

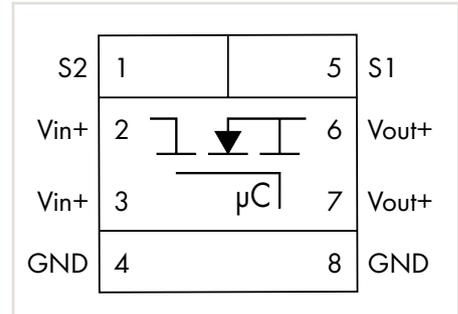
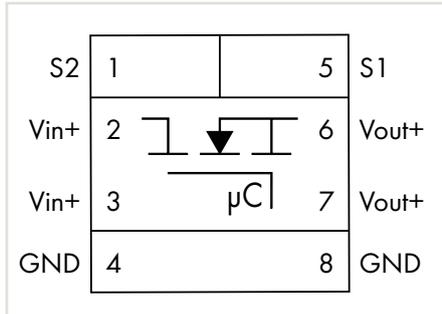
Item No.	Pack. Unit
787-2861/200-000	1

Specific Electrical Data

Nominal current	1 ADC (fixed setting)
Voltage drop	50 mV at 1 A
Signaling	Status output; high-side switching; can also be combined as a group output for up to 30 devices
MTBF	1,263,074 h (per MIL-HDBK-217F2)
Efficiency	99 % typ.
Power loss P _v	0.3 W (nominal load)
Ambient temperature	-25 ... +70 °C

Nominal current	2 ADC (fixed setting)
Voltage drop	50 mV at 2 A
Signaling	Status output; high-side switching; can also be combined as a group output for up to 30 devices
MTBF	1,262,142 h (per MIL-HDBK-217F2)
Efficiency	99 % typ.
Power loss P _v	0.3 W (nominal load)
Ambient temperature	-25 ... +70 °C

Nominal current	2 ADC (fixed setting)
Voltage drop	50 mV at 2 A
Signaling	Status output; high-side switching; can also be combined as a group output for up to 30 devices
MTBF	1,262,142 h (per MIL-HDBK-217F2)
Efficiency	99 % typ.
Power loss P _v	0.3 W (nominal load)
Ambient temperature	-25 ... +70 °C



EPSITRON® Electronic Circuit Breaker;
1-channel; 24 VDC; 4 A; communication capability

Item No.	Pack. Unit
787-2861/400-000	1

EPSITRON® Electronic Circuit Breaker;
1-channel; 24 VDC; 6 A; communication capability

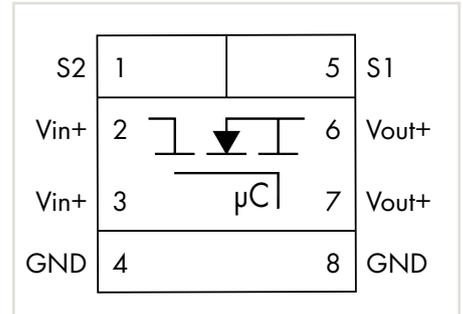
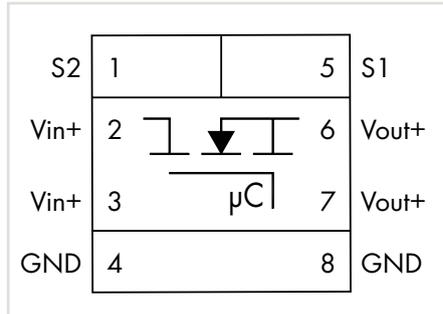
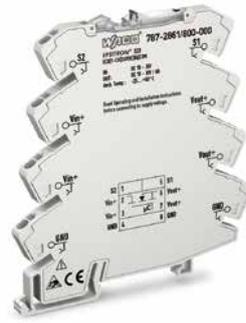
Item No.	Pack. Unit
787-2861/600-000	1

Specific Electrical Data

Nominal current	4 ADC (fixed setting)
Voltage drop	60 mV at 1 A
Signaling	Status output; high-side switching; can also be combined as a group output for up to 30 devices
MTBF	1,258,733 h (per MIL-HDBK-217F2)
Efficiency	99 % typ.
Power loss P_v	0.3 W (nominal load)
Ambient temperature	-25 ... +70 °C

Nominal current	6 ADC (fixed setting)
Voltage drop	120 mV at 6 A
Signaling	Status output; high-side switching; can also be combined as a group output for up to 30 devices
MTBF	1,253,313 h (per MIL-HDBK-217F2)
Efficiency	99 % typ.
Power loss P_v	0.3 W (nominal load)
Ambient temperature	-25 ... +60 °C

Nominal current	6 ADC (fixed setting)
Voltage drop	120 mV at 6 A
Signaling	Status output; high-side switching; can also be combined as a group output for up to 30 devices
MTBF	1,253,313 h (per MIL-HDBK-217F2)
Efficiency	99 % typ.
Power loss P_v	0.3 W (nominal load)
Ambient temperature	-25 ... +60 °C



EPSITRON® Electronic Circuit Breaker;
1-channel; 24 VDC; 8 A; communication capability

Item No.	Pack. Unit
787-2861/800-000	1

EPSITRON® Electronic Circuit Breaker;
1-channel; 24 VDC; 1 ... 8 A; communication capability

Item No.	Pack. Unit
787-2861/108-020	1

Specific Electrical Data

Nominal current	8 ADC (fixed setting)
Voltage drop	160 mV at 8 A
Signaling	Status output; high-side switching; can also be combined as a group output for up to 30 devices
MTBF	1,245,816 h (per MIL-HDBK-217F2)
Efficiency	99 % typ.
Power loss P _v	0.3 W (nominal load)
Ambient temperature	-25 ... +35 °C (module assembly) -25 ... +65 °C (module distance: 6 mm)

Nominal current	1 ... 8 ADC (adjustable)
Voltage drop	Nominal current 1 ... 2 A: < 50 mV/A Nominal current ≥ 3 A: 20 mV/A
Signaling	Status output; high-side switching; can also be combined as a group output for up to 30 devices; adjustable
MTBF	1,262,142 h (per MIL-HDBK-217F2)
Efficiency	98 % typ.
Power loss P _v	0.3 W (nominal load)
Ambient temperature	-25 ... +70 °C (at 8 A and a module distance of 6 mm: -25 ... +65 °C)

Nominal current	1 ... 8 ADC (adjustable)
Voltage drop	Nominal current 1 ... 2 A: < 50 mV/A Nominal current ≥ 3 A: 20 mV/A
Signaling	Status output; high-side switching; can also be combined as a group output for up to 30 devices; adjustable
MTBF	1,262,142 h (per MIL-HDBK-217F2)
Efficiency	98 % typ.
Power loss P _v	0.3 W (nominal load)
Ambient temperature	-25 ... +70 °C (at 8 A and a module distance of 6 mm: -25 ... +65 °C)

Power Supply for Fan Control

EPSITRON®

787 Series



Power supply for fan control;
EPSITRON® Fan Control Power

Item No.	Pack. Unit
787-914	1

Features:

- Power supply for small loads that operate at a variable input voltage
- The output voltage can be adjusted linearly by hand or via an analog voltage signal (0 ... 10 V) in the range from 12 ... 22 V, e.g., for automatically controlling fan speed in control cabinets.
- Flat design allows installation in confined spaces.
- Variable mounting options for space-saving installation, e.g., in recesses

Technical Data

Input	
Nominal input voltage $U_{i,nom}$	100 ... 240 VAC
Input voltage range	90 ... 264 VAC, 130 ... 373 VDC
Frequency	47 ... 63 Hz
Input current I_i	< 0.6 A
Power factor	> 0.45
Discharge current	< 1 mA
Inrush current	< 18 A
Mains failure hold-up time	≥ 15 ms
Output	
Nominal output voltage $U_{o,nom}$	22 VDC ±2.5 %
Output voltage range	12 ... 22 VDC (adjustable by hand or via signal input)
Factory preset	22 VDC
Output current I_o	0.8 A (1 A at 110 V < U_i < 240 VAC)
Adjustment accuracy	< 1 %
Deviation; dynamic load change 10 ... 90 %	< 1 %
Residual ripple	< 100 mV (peak-to-peak)
Overload behavior	Constant power (in overload range: 1.05 ... 1.7 x I_o); Hiccup in the event of a short circuit or permanent overload
Status indication	Green LED (U_o)
Signal Input	
Input signal	0 ... 10 VDC
Input impedance	≥ 10 kΩ
Reverse voltage protection; input	Yes
Overvoltage protection	Yes
Efficiency/Power Losses	
Efficiency	> 84 % (230 VAC); > 80 % (110 VAC)
Power loss P_v	< 0.8 W (no load)
Power loss P_v max.	< 4 W
Fuse Protection	
Internal fuse	1 A / 250 V
Recommended backup fuse	Circuit breaker B6, C4 or higher
Environmental Requirements	
Ambient temperature	-20 ... +60 °C
Storage temperature	-25 ... +75 °C
Relative humidity	20 ... 90 % (no condensation permissible)
Derating	-2.47 %/K (> 45 °C)
Pollution degree	2 (per EN 50178)
Climatic category	3K3 (per EN 60721; except for low air pressure)
Safety and Protection	
Test voltage (pri.-sec.)	3 kV AC
Protection class	II
Protection type	IP20 (per EN 60529)
Overvoltage protection	< 31 VDC (in the event of a fault)
Short-circuit-protection	Yes
Open-circuit proof	Yes
Feedback voltage	31 VDC (max.)
Parallel operation	Yes
Series operation	Yes
MTBF	> 500,000 h at 25 °C per IEC 61709
Connection and Mounting Type	
Connection technology	CAGE CLAMP® (WAGO 236 Series)
Conductor range	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	5 ... 6 mm / 0.2 ... 0.24 inch
Mounting type	DIN-rail mount (EN 60715) or screw mount
Dimensions and Weight	
Dimensions (mm) W x H x D	45 x 138 x 35
Weight	300 g
Standards and Specifications	
Standards/specifications	CE; UL 60950; EN 60950; EN 61204-3; EN 61000-6-3

Radio Interference Suppression Filter, 1-Phase

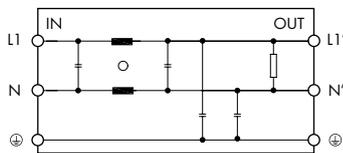
EPSITRON®

787 Series



Radio interference suppression filter; 250 VAC;
10 A

Item No.	Pack. Unit
787-980	1



Features:

- Suppresses interference generated on the mains side of power supplies and electronic devices
- Fulfills general requirements
- Provides a single-stage filter solution
- Efficiently filters out line-bound interference emissions
- Increases the interference immunity of connected loads

Technical Data

Input/Output	
Nominal input voltage $U_{I, \text{nom}}$	250 VAC
Input voltage range	0 ... 250 VAC
Frequency	50 ... 60 Hz
Input current I_I	10 A
Overload capacity	150 %, shortly
Discharge current	8 mA
Efficiency/Power Losses	
Power loss P_I	4.0 W
Environmental Requirements	
Ambient operating temperature	-25 ... +70 °C; device starts at -40 °C; type-tested
Derating	-2.5 %/K (> 45 °C)
Climatic category	25/085/21 (per EN 60068-1)
Safety and Protection	
Housing	Metal housing
Test voltage	1700 VDC (L1-N); 2700 VDC (I1-PE)
Protection class	I
Protection type	IP20 per EN 60529
Connection and Mounting Type	
Connection technology	L1, N: WAGO 741 Series Ground: 6.3 x 0.8 mm tab connector
Conductor range	L1, N: 0.08 ... 2.5 mm ² / 28 ... 12 AWG Ground: -
Mounting type	DIN-rail mount (EN 60715)
Dimensions and Weight	
Dimensions (mm) W x H x D	50 x 85 x 100; depth from upper-edge of DIN-rail
Weight	340 g
Standards and Specifications	
Standards/specifications	DIN EN 60939-2

DC/DC Converter

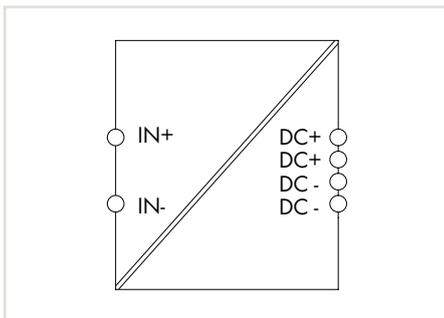
EPSITRON® COMPACT Power

787 Series



DC/DC converter; 72 VDC / 12 VDC; 4 A

Item No.	Pack. Unit
787-1015/072-000	1



Features:

- Primary switch mode power supply unit
- Natural convection cooling when horizontally mounted
- Stepped profile, ideal for distribution boards or distribution boxes
- Suitable for both parallel and series operation
- Electrically isolated output voltage (SELV) per EN 60950-1
- Adjustment accuracy: $\pm 1\%$ ($\pm 10\%$ subject to the application range of EN 50121-3-2)

Technical Data

Input	
Nominal input voltage $U_{i,nom}$	72 VDC
Input voltage range	40 ... 90 VDC
Frequency	0 Hz
Input current I_i	0.79 A at 72 VDC
Inrush current	< 30 A, NTC
Mains failure hold-up time	> 8 ms at 72 VDC
Output	
Nominal output voltage $U_{o,nom}$	12 VDC (SELV)
Factory preset	12 VDC
Output current I_o	4 A at 12 VDC; max. 3.1 A in any mounting position
Residual ripple	< 100 mV (peak-to-peak) up to 20 MHz
Current limitation	1.1 x I_o typ.
Overload behavior	Constant current
Operational indication	Green LED (U_o)
Efficiency/Power Losses	
Efficiency	85 % typ.
Power loss P_v	1.2 W (72 VDC/no load); 8.6 W (72 VDC/nominal load)
Power loss P_v max.	9.7 W typ. (40 VDC / 12 VDC; 4 A)
Fuse Protection	
Internal fuse	T4 A / 125 VDC
External fuse	6 A, 10 A power circuit breakers; B, C characteristics
Environmental Requirements	
Ambient operating temperature	-40 ... +70 °C
Storage temperature	-40 ... +85 °C
Relative humidity	5 ... 96 % (coated PCB)
Derating	-1.5 %/K (> 55 °C)
Degree of pollution	2 (per EN 50178)
Climatic category	3K3 (per EN 60721)
Shock and vibration	Category 1; Class B (per EN 61373:2010)
Safety and Protection	
Enclosure	Plastic; light gray; Flammability class V0 per UL94
Test voltage PRI-SEC	4.2 kVDC
Protection class	II
Degree of protection	IP20 per EN 60529
Overvoltage category	II
Overvoltage protection	Varistor (input side); internal protective circuit; < 21.5 VDC (output side in case of an error)
Short circuit protection	Yes
No-load proof	Yes
Feedback voltage	Max. 20 VDC
Parallel operation	Yes
Series connection	Yes
MTBF	> 500,000 h
Fire load	7 MJ
Connection and Mounting Type	
Connectors	Input/Output: WAGO 740 Series
Conductor range	Input/Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input/Output: 6 ... 7 mm / 0.24 ... 0.28 inch
Mounting type	DIN-rail-mount (EN 60715)
Dimensions and Weight	
Dimensions (mm) W x H x L	72 x 89 x 59; Length: 55 mm from upper-edge of DIN-rail
Weight	240 g
Standards and Specifications	
Standards/specifications	EN 60950; EN 61204-3; EN 50121-3-2; EN 50125

DC/DC Converter

EPSITRON® COMPACT Power

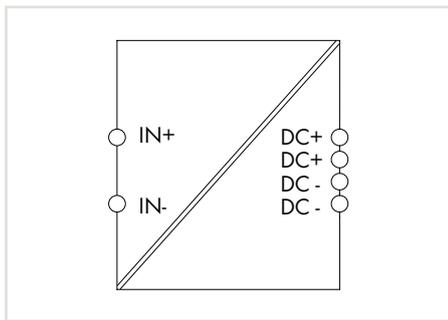
787 Series



Similar to picture

DC/DC converter; 24 VDC / 12 VDC; 4 A

Item No.	Pack. Unit
787-1650	1



Features:

- Primary switch mode power supply unit
- Natural convection cooling when horizontally mounted
- Suitable for both parallel and series operation
- Electrically isolated output voltage (SELV) per EN 60950-1
- Adjustment accuracy: $\pm 1\%$

Technical Data

Input	
Nominal input voltage $U_{i,nom}$	24 VDC
Input voltage range	18 ... 60 VDC
Frequency	0 Hz
Input current I_i	3.39 ... 0.96 A
Inrush current	< 60 A, NTC
Mains failure hold-up time	5 ms at 24 VDC
Output	
Nominal output voltage $U_{o,nom}$	12 VDC $\pm 1\%$
Output voltage range	11.5 ... 14.5 VDC
Factory preset	12 VDC
Output current I_o	4 A
Residual ripple	< 50 mVpp
Current limitation	1.1 x I_o typ.
Overload behavior	Constant current
Operational indication	Green LED
Efficiency/Power Losses	
Efficiency	84 % typ.
Power loss P_v	1 W (no load)
Power loss P_v , max.	11.4 W at 24 VDC / 3 A
Fuse Protection	
Internal fuse	T4 A
Environmental Requirements	
Ambient operating temperature	-25 ... +70 °C
Storage temperature	-25 ... +85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	-2 %/K (> 55 °C)
Degree of pollution	2 (per EN 50178)
Climatic category	3K3 (per EN 60721)
Safety and Protection	
Enclosure	Plastic; light gray; Flammability class V0 per UL94
Test voltage PRI-SEC	2.2 kVDC
Protection class	III
Degree of protection	IP20 per EN 60529
Overvoltage category	II
Overvoltage protection	Varistor (input side)
Short circuit protection	Yes
No-load proof	Yes
Feedback voltage	Max. 25 VDC
Parallel operation	Yes
Series connection	Yes
MTBF	> 500,000 h
Fire load	7.8 MJ
Connection and Mounting Type	
Connectors	Input/Output: WAGO 721 Series
Conductor range	Input/Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input/Output: 8 ... 9 mm / 0.31 ... 0.35 inch
Mounting type	DIN-rail-mount (EN 60715)
Mounting position	Horizontal
Dimensions and Weight	
Dimensions (mm) W x H x L	45 x 90 x 107; Length from upper-edge of DIN-rail
Weight	240 g
Standards and Specifications	
Standards/specifications	CE; EN 60950-1; EN 61204-3; EN 61558-2-16

Potential Distribution Module 830 Series



Technical Data

Input/Output

Operating voltage

250 VAC/VDC

Environmental Requirements

Ambient operating temperature

-20 ... +60 °C

Relative humidity

95 % (no condensation permissible)

Connection and Mounting Type

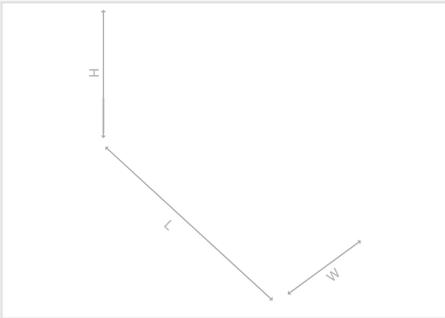
Connection technology

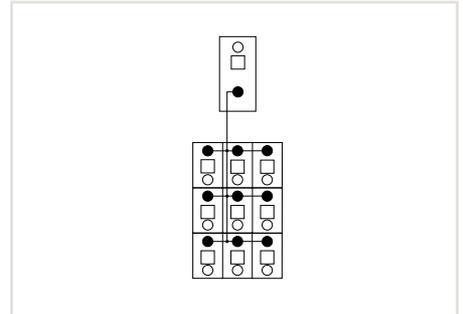
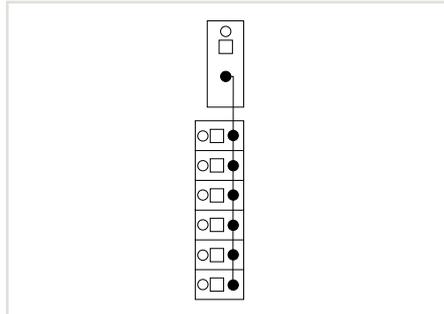
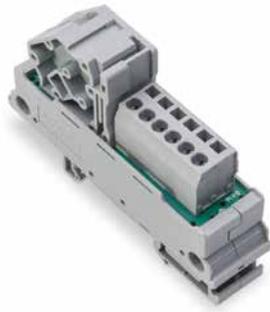
Input: CAGE CLAMP® (WAGO 745 Series)
Output: CAGE CLAMP® (WAGO 739 Series)

Standards and Specifications

Standards/specifications

cULus 61010-2-201





Potential distribution module;
1 potential; with 1 input clamping point; conductor cross-section up to 16 mm²; with 6 output clamping points; conductor cross-section up to 2.5 mm²

Color	Item No.	Pack. Unit
gray	830-800/000-302	10
blue	830-800/000-302/000-006	10

Potential distribution module;
1 potential; with 1 input clamping point; conductor cross-section up to 16 mm²; with 9 output clamping points; conductor cross-section up to 2.5 mm²

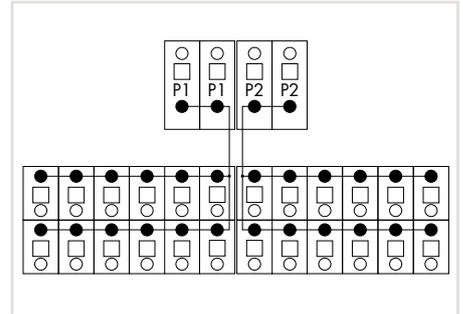
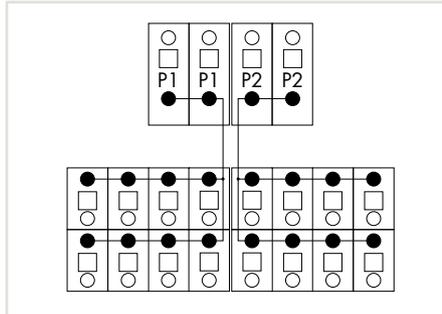
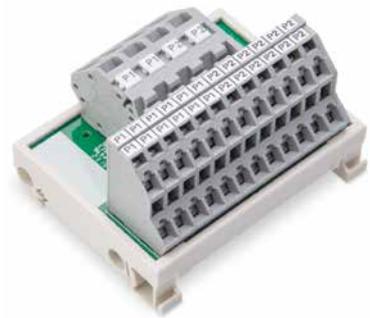
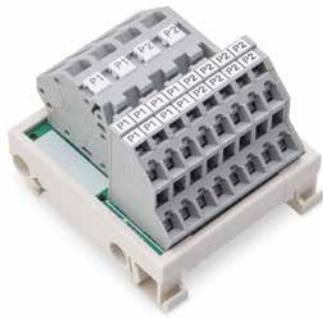
Color	Item No.	Pack. Unit
gray	830-800/000-303	10

Specific Technical Data

Total current max.	65 A
Current per connection max.	12 A
Conductor range	Input: 0.2 ... 16 mm ² / 24 ... 6 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 11 ... 12 mm / 0.43 ... 0.47 inch Output: 8 ... 9 mm / 0.31 ... 0.35 inch
Dimensions (mm) W x H x D	21 x 49 x 85; height from upper-edge of DIN-rail
Weight	51 g

Total current max.	65 A
Current per connection max.	10 A
Conductor range	Input: 0.2 ... 16 mm ² / 24 ... 6 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 11 ... 12 mm / 0.43 ... 0.47 inch Output: 5 ... 6 mm / 0.2 ... 0.24 inch
Dimensions (mm) W x H x D	21 x 62 x 85; height from upper-edge of DIN-rail
Weight	57 g

Total current max.	65 A
Current per connection max.	10 A
Conductor range	Input: 0.2 ... 16 mm ² / 24 ... 6 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 11 ... 12 mm / 0.43 ... 0.47 inch Output: 5 ... 6 mm / 0.2 ... 0.24 inch
Dimensions (mm) W x H x D	21 x 62 x 85; height from upper-edge of DIN-rail
Weight	57 g



Potential distribution module;
2 potentials; with 2 input clamping points; conductor cross-section up to 6 mm²; each with 8 output clamping points; conductor cross-section up to 2.5 mm²

Color	Item No.	Pack. Unit
gray	830-800/000-305	6

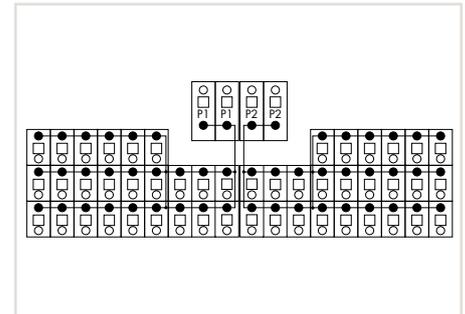
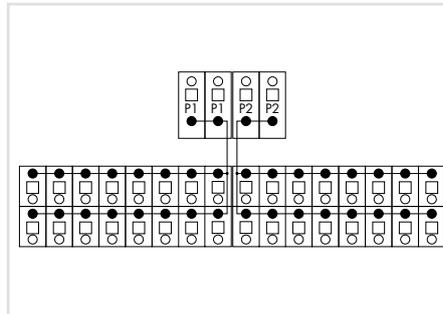
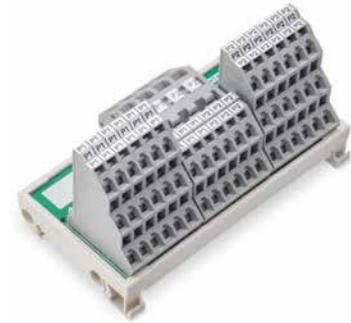
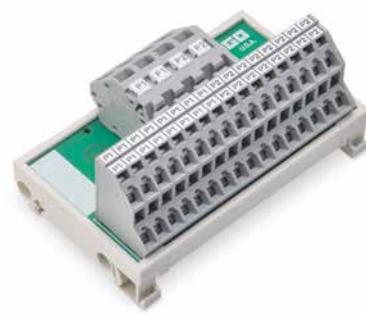
Potential distribution module;
2 potentials; with 2 input clamping points; conductor cross-section up to 6 mm²; each with 12 output clamping points; conductor cross-section up to 2.5 mm²

Color	Item No.	Pack. Unit
gray	830-800/000-306	6

Specific Technical Data

Total current max.	30 A
Current per connection max.	10 A
Conductor range	Input: 0.2 ... 6 mm ² / 24 ... 10 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 11 ... 12 mm / 0.43 ... 0.47 inch Output: 5 ... 6 mm / 0.2 ... 0.24 inch
Dimensions (mm) W x H x D	49 x 38 x 55; height from upper-edge of DIN-rail
Weight	75 g

Total current max.	30 A
Current per connection max.	10 A
Conductor range	Input: 0.2 ... 6 mm ² / 24 ... 10 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 11 ... 12 mm / 0.43 ... 0.47 inch Output: 5 ... 6 mm / 0.2 ... 0.24 inch
Dimensions (mm) W x H x D	69 x 38 x 55; height from upper-edge of DIN-rail
Weight	91 g



Potential distribution module;
2 potentials; with 2 input clamping points; conductor cross-section up to 6 mm²; each with 16 output clamping points; conductor cross-section up to 2.5 mm²

Color	Item No.	Pack. Unit
gray	830-800/000-307	6

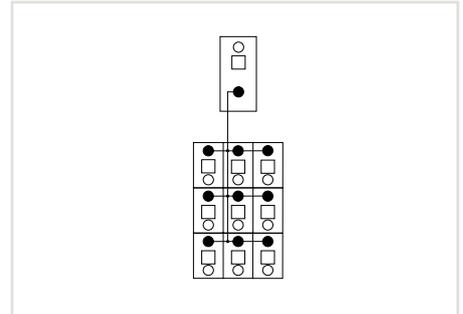
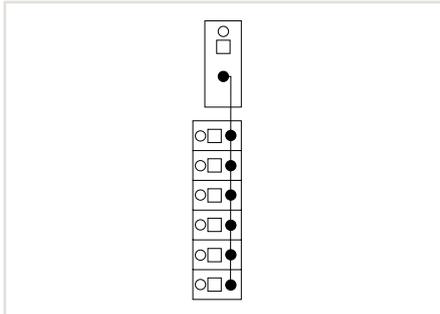
Potential distribution module;
2 potentials; with 2 input clamping points; conductor cross-section up to 6 mm²; each with 24 output clamping points; conductor cross-section up to 2.5 mm²

Color	Item No.	Pack. Unit
gray	830-800/000-308	6

Specific Technical Data

Total current max.	30 A
Current per connection max.	10 A
Conductor range	Input: 0.2 ... 6 mm ² / 24 ... 10 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 11 ... 12 mm / 0.43 ... 0.47 inch Output: 5 ... 6 mm / 0.2 ... 0.24 inch
Dimensions (mm) W x H x D	89 x 38 x 55; height from upper-edge of DIN-rail
Weight	112 g

Total current max.	30 A
Current per connection max.	10 A
Conductor range	Input: 0.2 ... 6 mm ² / 24 ... 6 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 11 ... 12 mm / 0.43 ... 0.47 inch Output: 5 ... 6 mm / 0.2 ... 0.24 inch
Dimensions (mm) W x H x D	102 x 38 x 55; height from upper-edge of DIN-rail
Weight	141 g



Potential distribution module;
1 potential; with 1 input clamping point; conductor cross-section up to 16 mm²; with lever; with 6 output clamping points; conductor cross-section up to 2.5 mm²

Color	Item No.	Pack. Unit
gray	830-800/000-312	10
blue	830-800/000-312/000-006	10

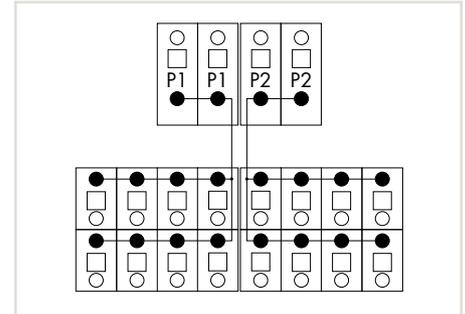
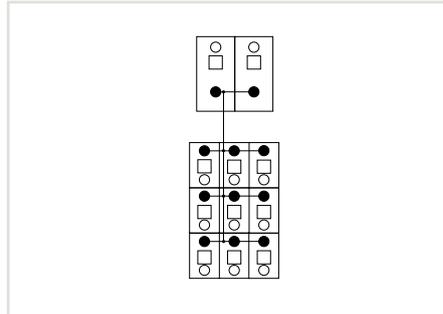
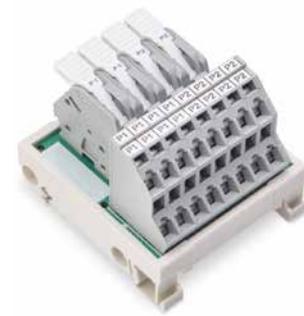
Potential distribution module;
1 potential; with 1 input clamping point; conductor cross-section up to 16 mm²; with lever; with 9 output clamping points; conductor cross-section up to 2.5 mm²

Color	Item No.	Pack. Unit
gray	830-800/000-313	10

Specific Technical Data

Total current max.	65 A
Current per connection max.	12 A
Conductor range	Input: 1.5 ... 16 mm ² / 16 ... 6 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 12 ... 13 mm / 0.47 ... 0.51 inch Output: 8 ... 9 mm / 0.31 ... 0.35 inch
Dimensions (mm) W x H x D	21 x 49 x 85; height from upper-edge of DIN-rail
Weight	51 g

Total current max.	65 A
Current per connection max.	10 A
Conductor range	Input: 1.5 ... 16 mm ² / 16 ... 6 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 12 ... 13 mm / 0.47 ... 0.51 inch Output: 5 ... 6 mm / 0.2 ... 0.24 inch
Dimensions (mm) W x H x D	21 x 62 x 85; height from upper-edge of DIN-rail
Weight	57 g



Potential distribution module;
1 potential; with 2 input clamping points; conductor cross-section up to 6 mm²; with levers; with 9 output clamping points; conductor cross-section up to 2.5 mm²

Color	Item No.	Pack. Unit
gray	830-800/000-314	10

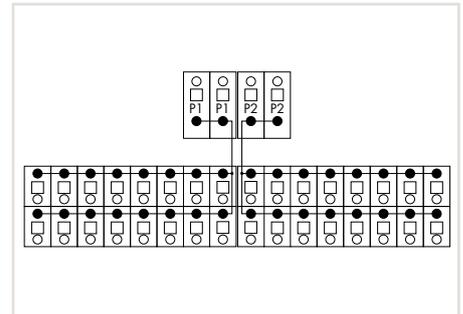
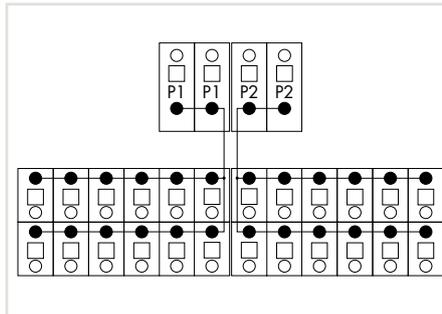
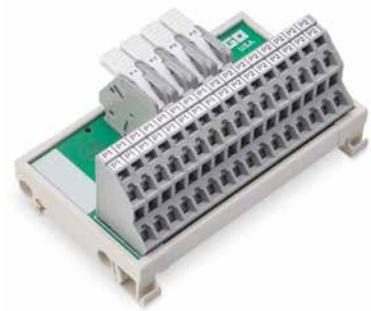
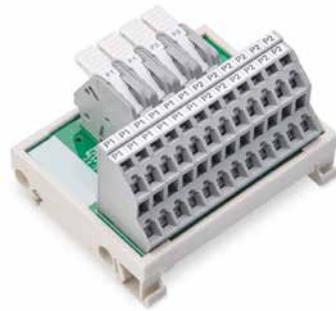
Potential distribution module;
2 potentials; with 2 input clamping points; conductor cross-section up to 6 mm²; with levers; each with 8 output clamping points; conductor cross-section up to 2.5 mm²

Color	Item No.	Pack. Unit
gray	830-800/000-315	10

Specific Technical Data

Total current max.	30 A
Current per connection max.	10 A
Conductor range	Input: 0.5 ... 6 mm ² / 20 ... 10 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 11 mm / 0.43 inch Output: 5 ... 6 mm / 0.2 ... 0.24 inch
Dimensions (mm) W x H x D	21 x 62 x 85; height from upper-edge of DIN-rail
Weight	56 g

Total current max.	30 A
Current per connection max.	10 A
Conductor range	Input: 0.5 ... 6 mm ² / 20 ... 10 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 11 ... 12 mm / 0.43 ... 0.47 inch Output: 5 ... 6 mm / 0.2 ... 0.24 inch
Dimensions (mm) W x H x D	49 x 38 x 55; height from upper-edge of DIN-rail
Weight	76 g



Potential distribution module;
2 potentials; with 2 input clamping points; conductor cross-section up to 6 mm²; with levers; each with 12 output clamping points; conductor cross-section up to 2.5 mm²

Color	Item No.	Pack. Unit
gray	830-800/000-316	6

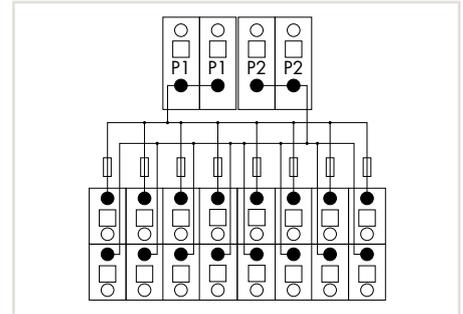
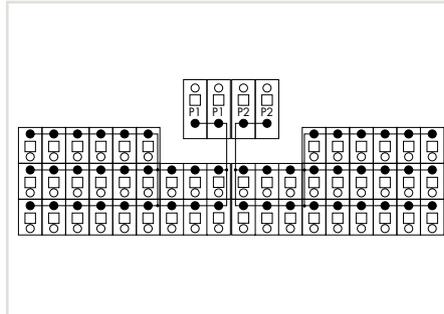
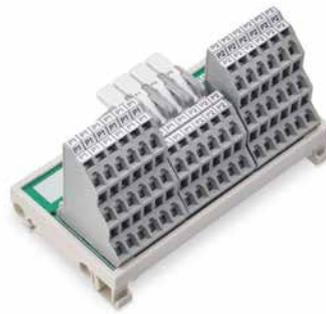
Potential distribution module;
2 potentials; with 2 input clamping points; conductor cross-section up to 6 mm²; with levers; each with 16 output clamping points; conductor cross-section up to 2.5 mm²

Color	Item No.	Pack. Unit
gray	830-800/000-317	6

Specific Technical Data

Total current max.	30 A
Current per connection max.	10 A
Conductor range	Input: 0.5 ... 6 mm ² / 20 ... 10 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 11 ... 12 mm / 0.43 ... 0.47 inch Output: 5 ... 6 mm / 0.2 ... 0.24 inch
Dimensions (mm) W x H x D	69 x 38 x 55; height from upper-edge of DIN-rail
Weight	97 g

Total current max.	30 A
Current per connection max.	10 A
Conductor range	Input: 0.5 ... 6 mm ² / 20 ... 10 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 11 ... 12 mm / 0.43 ... 0.47 inch Output: 5 ... 6 mm / 0.2 ... 0.24 inch
Dimensions (mm) W x H x D	89 x 38 x 55; height from upper-edge of DIN-rail
Weight	108 g



Potential distribution module;
2 potentials; with 2 input clamping points; conductor cross-section up to 6 mm²; with levers; each with 24 output clamping points; conductor cross-section up to 2.5 mm²

Color	Item No.	Pack. Unit
gray	830-800/000-318	3

Potential distribution module;
2 potentials; with 2 input clamping points; conductor cross-section up to 6 mm²; with levers; each with 8 output clamping points; conductor cross-section up to 2.5 mm²; with fuse

Color	Item No.	Pack. Unit
gray	830-800/000-319	3

Specific Technical Data

Total current max.	30 A
Current per connection max.	10 A
Conductor range	Input: 0.5 ... 6 mm ² / 20 ... 10 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 11 ... 12 mm / 0.43 ... 0.47 inch Output: 5 ... 6 mm / 0.2 ... 0.24 inch
Dimensions (mm) W x H x D	102 x 53 x 55; height from upper-edge of DIN-rail
Weight	145 g

Total current max.	30 A
Current per connection max.	6.3 A
Conductor range	Input: 0.5 ... 6 mm ² / 20 ... 10 AWG Output: 0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	Input: 11 ... 12 mm / 0.43 ... 0.47 inch Output: 5 ... 6 mm / 0.2 ... 0.24 inch
Dimensions (mm) W x H x D	98 x 48 x 106; height from upper-edge of DIN-rail
Weight	163 g

Micro-WSB Inline Markers



Micro-WSB Inline markers; plain; 2,000 markers (4 mm) per reel; not stretchable			
for:	Color	Item No.	Pack. Unit
Modular Empty Housing, 2857 Series	○ white	2009-141	1



Micro-WSB Inline markers are compatible with 2857 Series Modular Empty Housings.

Circuit ID Labels and Marking Strips



Circuit ID labels; self-adhesive; plain; 750 labels/roll; single-row; divided into two fields		
Color	Item No.	Pack. Unit
○ white	210-813	1



Circuit ID labels; self-adhesive; plain; 750 labels/roll; single-row; divided into three fields		
Color	Item No.	Pack. Unit
○ white	210-814	1



Marking strip; self-adhesive; plain; 20 m/reel; 30 mm wide		
Color	Item No.	Pack. Unit
● yellow	210-874/000-002	1

Marking strip; self-adhesive; plain; 20 m/reel; 12.7 mm wide; for Siemes ET200		
Color	Item No.	Pack. Unit
○ white	210-880	1
● yellow	210-880/000-002	1

Marking strip; self-adhesive; plain; 20 m/reel; 22.6 mm wide; for Siemes S7		
Color	Item No.	Pack. Unit
○ white	210-882	1
● yellow	210-882/000-002	1

Cutter for *smart*PRINTER



Cutter for *smart*PRINTER; only for marking strips;
not suitable for WMB Inline markers

Item No.	Pack. Unit
258-5030	1



Hardware requirements:

- Printer model: *smart*PRINTER
- From manufacturing month/year: 0814 – August 2014
- Firmware version: 1.UW7i
- Printer driver: Version 7.4.2

Software requirements:

- *smart*SCRIPT: Version 3.88.9.0 or higher
- WAGO Printer Settings: Version 2.4.0.0 or higher

Approved print material to be cut:

- Marking Strips: 2009-110, 709-177, 709-178, 757-901/000-005
- Self-Adhesive Marking Strips: 210-702, 210-870 ... -877
- Cable Tie Markers: 211-835 ... -836, 211-836/000-002
- Self-Laminating Labels: 211-855 ... -857
- Conductor Markers for Thread-On Mounting: 211-861 ... -863
- Type Labels: 210-801 ... -804, 210-812
- Continuous Labels: 210-831 ... -834
- Label for Circuit Identification: 210-813, 210-814

Dimensions of printing materials:

- Width (max.): 46 mm
- Thickness (max.): 250 µm

Technical Data

Width	60 mm
Height	107 mm
Depth	131 mm
Weight	1050 g

Ink Ribbon for *smart*PRINTER



Thermal transfer ink ribbon for *smart*PRINTER; suitable for all markers in every WAGO product line;
50 mm wide x 74 m

Color	Item No.	Pack. Unit
● red	258-5005/000-005	1

JUMPFLEX® Signs and Symbols

Signal Conditioners and Isolation Amplifiers



Isolation amplifier



Temperature signal conditioner



Threshold value switch



Frequency signal conditioner



Potentiometer signal conditioner



Resistance signal conditioner



Current signal conditioner



Voltage signal conditioner

Specialty Functions



Zero/span adjustment



Clipping function



Digital output (DO)



Relay, 1 changeover contact



Relay, 1 make contact

Configuration



DIP switch



Interface configuration software



Interface configuration app



Interface configuration display



Push/slide switch



Save



Simulation

General



Temperature sensors



Connection technology



Supply voltage

Input Signals



Frequencies



Potentiometer



Resistors



Current



Voltage



Bipolar signals (current and voltage)

Output Signals



Current



Voltage



Bipolar signals (current and voltage)

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