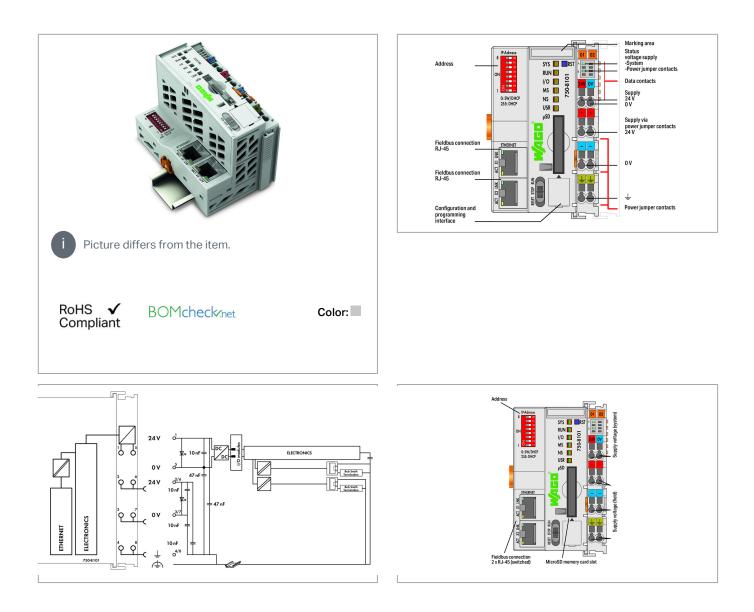


www.wago.com/750-8101/000-010



Subject to changes. Please also observe the further product documentation!

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Application – Controlle	er Allocation		
	digitalTAP <sup>™</sup> with MTConnect		
	flexROOM		
w	AGO Lighting Management		
WA	GO Energy Data Management		
Description	Item No.		
PFC100; FG0; 2ETH	750-8101/000-010		
PFC200; FG1; 2ETH RS	750-8202/000-011		
PFC200; FG2; 2ETH RS	750-8202/000-012		
PFC200; FGE; 2ETH RS	750-8202/000-022	1	
PFC200; FGE; 2ETH RS 3G	750-8207/000-022		

#### Item description

The controllers are designed for the processing of WAGO applications. You can identify these controllers by a special version of the item number.

The application can be downloaded from the respective item on our website. Additional information can be obtained from the application documentation.

The controllers can also be used with their own applications as they offer all possibilities of the respective standard variant beyond using the WAGO application(s).

Programming per IEC 61131-3

- Programmable via *e!COCKPIT*
- Direct connection of WAGO I/O Modules
- 2 x ETHERNET (configurable), RS-232/485
- Linux operating system with RT-Preempt patch
- Configuration via *e!COCKPIT* or Web-Based Management interface
- Maintenance-free

Suitable software application:

Machine Data Collection with MTConnect

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## Data Technical data

Communication	Modbus (TCP, UDP) Ethernet
	EtherNet/IP <sup>TM</sup> Adapter (slave), library for e!RUNTIME
ETHERNET protocols	DHCP
	DNS
	NTP
	FTP
	FTPS
	SNMP
	HTTP HTTPS
	SSH
Visualization	Web Visu
Operating system	Real-time Linux 3.18 (with RT-Preempt patch)
CPU	Cortex A8; 600 MHz
Programming languages per IEC 61131-3	Instruction List (IL)
	Ladder Diagram (LD)
	Function Block Diagram (FBD), Continuous Function Chart (CFC)
	Structured Text (ST)
	Sequential Function Chart (SFC)
Programming environment	e!COCKPIT (based on CODESYS V3)
Configuration options	e!COCKPIT
	WAGO-I/O-CHECK
	Web-based management
Baud rate (communication/fieldbus 1)	10/100 Mbit/s
Baud rate	ETHERNET: 10/100 Mbit/s
Transmission medium (communication/fieldbus)	ETHERNET: Twisted Pair S-UTP; 100 $\Omega$ ; Cat. 5; 100 m maximum
	cable length
Main memory (RAM)	256 MB
Internal memory (flash)	256 MB
Non-volatile hardware memory	64 Kbytes
Program memory	12 MB (Program and data memory (dynamically distributed))
Data memory	12 MB Program and data memory (dynamically distributed)
Non-volatile software memory	64. Kbytes
Memory card type	microSD up to 32 GB (all guaranteed properties only valid with WAGO's memory card)
Memory card slot	Push-push mechanism; Cover lid (sealable)
Number of modules per node (max.)	250

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Number of modules without a bus extension (max.)	64
Input and output (internal) process image (max.)	1000 Worte/1000 Worte
Input and output (MODBUS) process image (max.)	; e!RUNTIME: 32000 Worte
Indicators	LED (SYS, RUN, I/O, USR) red/green/orange: Status of system, program, local data bus, status programmable by user (can be used via CODESYS library); LED (A, B) green: Status of system power supply, field supply
Supply voltage (system)	24 VDC (-25 +30 %); via pluggable connector (CAGE CLAMP <sup>®</sup> connection)
Input current (typ.) at nominal load (24 V)	550 mA
Total current (system supply)	1,700 mA
Supply voltage (field)	24 VDC (-25 +30 %); via power jumper contacts
Current carrying capacity (power jumper contacts)	10 A
Number of outgoing power jumper contacts	3
Isolation	500 V system/field

## **Connection data**

Connection technology: communication/fieldbus	Modbus TCP/UDP: 2 x RJ-45
Connection technology: system supply	2 × CAGE CLAMP <sup>®</sup>
Connection technology: field supply	6 × CAGE CLAMP <sup>®</sup>
Connection type (1)	System/field supply
Solid conductor	0.08 2.5 mm² / 28 14 AWG
Fine-stranded conductor	0.08 2.5 mm² / 28 14 AWG
Strip length	8 9 mm / 0.31 0.35 inch
Connection technology: device configuration	1 x Male connector; 4-pole

#### Physical data

Width	61.5 mm / 2.421 inch
Height	100 mm / 3.937 inch
Depth	71.9 mm / 2.831 inch
Depth from upper edge of DIN-rail	64.7 mm / 2.547 inch

#### Mechanical data

Weight	154.2 g
Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Conformity marking	CE

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WAGO Kontakttechnik GmbH & Co. KG	Do you have any questions about our products?
Hansastr. 27	We are always happy to take your call at +49 (571) 887-44222.
32423 Minden	
Phone: +49571 887-0   Fax: +49571 887-169	
Email: info.de@wago.com   Web: www.wago.com	



#### **Environmental requirements**

Surrounding air temperature (operation)	055 ℃
Surrounding air temperature (storage)	-40 85 °C
Protection type	IP20
Pollution degree (5)	2 per IEC 61131-2
Operating altitude	without temperature derating: 0 2000 m; with temperature derating: 2000 5000 m (0.5 K/100 m); 5000 m (max.)
Relative humidity (without condensation)	95%
Mounting position	any
Mounting type	DIN-35 rail
Vibration resistance	4g per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	per EN 61000-6-2, marine applications
EMC emission of interference	per EN 61000-6-3, marine applications
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Fire load	0.711 MJ
Permissible H <sub>2</sub> S contaminant concentration at a relative humidity 75	10 ppm
%	
Permissible SO <sub>2</sub> contaminant concentration at a relative humidity 75	25 ppm
%	

#### **Commercial data**

Packaging type	BOX
Country of origin	DE
GTIN	4055143670128
Customs tariff number	85371091990

#### Approvals / Certificates

#### **Ex-Approvals**

Logo	Approval	Additional Approval Text	Certificate name
ртв 0102 (Ех)	ATEX TUEV Nord Cert GmbH	EN 60079	TUEV_14_ATEX_148929_X

CCCEx CQST/CNEx CNCA-C23-01

2020312310000213

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IECEx TUEV Nord Cert GmbH IEC 60079

### IECEx\_TUN\_14.0035\_X

# Downloads Documentation

Manual

Manual digitalTAP <sup>™</sup> Application With MTConnect In order for manufactures to increase the productivity and efficiency of their plant floor, operations and maintenance managers alike need to have a real time view of their equipment. Using analytical software, plant floor leaders can track and visualize the current processes on their factory floor, and use this data to help them optimize their procedures.	2.3.3 12. 12. 2019	pdf 3.1 MB	Download
Collecting real time data from existing equipment on the plant floor can be challenging. Existing equipment that was installed years ago may not have been designed to provide status information to a higher level system. And manufactures use disparate types of equipment to complete the task at hand. So how can manufactures capture vital data from their mature machines so they can have a competitive edge in the market?			
WAGO offers a cost effective solution to bridge machine data from existing equipment to higher level analytical software applications. The digitalTAP™ from WAGO taps into your machine's information and transforms it into digital signals for use by analytical and data logging applications. This solution provides real time equipment data in a standardized format for any type of machine. The information is formatted using common standard open technologies based on xml and HTTP. Users can wire signals from their existing equipment, such as stack lights, motor starter auxiliaries and speed sensors to inputs on the WAGO controller or read Modbus registers from remote devices. These signals are then compiled into a standardized format and translated to a higher level software application.			
There is no programming required for this solution. The user only needs to use their PC's web browser to configure the inputs they have wired. Each input can be individually assigned a unique name with its own parameters including units and scaling range. These configuration parameters are automatically stored in the WAGO controller and are ready for use.			
Leveraging the open and royalty-free MTCONNECT® protocol, machine information Subject to changes. Please also observe the further product documentation!			

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is formatted into a standardized table and uses proven internet protocols for data transport.

Systemhandbuch WAGO I/O System 750 / 753	V 3.0.0 4. 3. 2021	pdf 6.6 MB	Download
Dezentrale Automatisierungstechnik	4. 0. 2021	0.0 MD	
Tutorial			
Set IP address with Ethernet Settings	3.0	mp4	Download
In this video we are demonstrating how you can set a IP address with Ethernet Settings. Content: 00:27 – Chapter #1 Download and install software; 00:56 – Chapt #2 Open Ethernet Settings; 01:10 – Chapter #3 Establish serial Connection; 01:34 – Chapter #4 Set IP address; 02:10 – Chapter #5 Check IP address	18. 12. 2017 er	88.3 MB	
Establish connection to a controller using SSH	1.0	mp4	Download
In this video we are demonstrating how to establish a SSH connec-tion with a controller using for example PuTTY to be able to work with the LINUX console. Contents: 0:21 Download and install the SSH client; 0:40 Establish the SSH connection; 0:50 Log on to the Controller	5. 8. 2017	29.0 MB	
System Description			
Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 780.2 kB	Download
Additional Information			
Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download
WAGO OPC UA Server	V 1.1.0 28. 1. 2021	pdf 1.2 MB	Download
Application Notes			
Application Note CoDeSys 2.3			
Application note Cloud Connectivity	2019-09-17	zip	Download
This application note explains how the WAGO controllers PFC100 and PFC200 can communicate with cloud services like Microsoft Azure (WAGO Cloud), Amazon AWS and IBM Bluemix. Data could be send to the cloud and commands could receive fror the cloud. The libraries WagoLibCloud for WAGO-I/O-PRO V2.3 and WagoAppClouc for e!COCKPIT are used.	n	4.1 MB	
Application Note e!COCKPIT			
e!COCKPIT application note WagoAppCloud			
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Hansastr. 27 We are alwa	e any questions about ou lys happy to take your ca		4222.
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This application note explains how the WAGO controllers PFC100 and PFC200 can communicate with cloud services like Microsoft Azure (WAGO Cloud), Amazon AWS and IBM Bluemix. Data could be send to the cloud and commands could receive from the cloud. The libraries WagoLibCloud for WAGO-I/O-PRO V2.3 and WagoAppCloud for elCOCKPIT are used.	2020-11-27 27. 11. 2020	zip 2.8 MB	Download
Libraries			
Library			
Library WagoLibCloud_02.lib Die Bibliothek dient zur Kommunikation des WAGO Controller PFC100 und PFC200 mit Cloud Diensten wie Microsoft Azure (WAGO Cloud), Amazon AWS and IBM Bluemix. Daten können zur Cloud gesendet und Kommandos von der Cloud empfangen werden.	V2.2.4 21. 1. 2020	zip 57.6 kB	Download
Runtime Software Firmware			
Firmware: 750-8101/000-010 Controller PFC100; FG0; 2 x ETHERNET; light gray	18 4. 1. 2021	zip 117.8 MB	Download
Firmware: 750-8101/000-010 Controller PFC100; FG0; 2 x ETHERNET; light gray Software Solutions (Applications)		•	Download
		•	Download
Software Solutions (Applications)		•	Download
Software Solutions (Applications) digital TAPTM powered by MTConnect digitalTAP <sup>TM</sup> software, powered by MTConnect for application controllers	4. 1. 2021 V 2.4.0.0 13. 12. 2019	117.8 MB ZIP	

#### **Environmental Product Compliance**

**Compliance Search** 

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URL

Download

Environmental Product Compliance 750-8101/000-010 Controller PFC100; FG0; 2 x ETHERNET; light gray

Installation Notes

**Product family** 

**Controller 750** Show all products from the family

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