

The PFC200 Controller is a compact PLC for the modular WAGO I/O System. Besides network and fieldbus interfaces, the controller supports all digital, analog and specialty I/O modules found within the 750/753 Series.

Two ETHERNET interfaces and an integrated switch enable line topology wiring.

The integrated cellular modem provides a wireless connection to the Internet and includes a radio license for EU countries. Other countries upon request.

An integrated Webserver provides user configuration options, while displaying PFC200 status information.

Besides standard machinery and equipment control, as well as building automation, typical applications for the PFC200 include decentralized data logging for the process industry.

Advantages:

- Programming per IEC 61131-3
- Programmable via **e!COCKPIT**
- Direct connection of WAGO's 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

Notes	
Note	Country approvals: All EU countries (approvals for other countries upon request)

Technical data	
Communication	Modbus (TCP, UDP) ETHERNET EtherNet/IP™ Adapter (slave), library for e!RUNTIME Modbus® RTU RS-232 serial interface RS-485 interface MQTT BACnet/IP, requires an additional license EtherCAT® master (requires an additional license) Telecontrol protocols (requires an additional license on the device)
ETHERNET protocols	DHCP DNS NTP FTP FTPS SNMP HTTP HTTPS SSH
Telecontrol protocols	IEC 60870-5-101/-103/-104 (additional license as slave or master) IEC-61850 (additional license as Client 300) DNP3 (additional license as Slave or Master 300)
Visualization	Web-Visu
Operating system	Real-time Linux (with RT-Preempt patch)
CPU	Cortex A8; 1 GHz
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 e!RUNTIME library CODESYS Library
Security encryption	OpenVPN, IPsec, firewall
Services	SMS (bidirectional) GPRS connection to Internet
Radio technology	GSM/UMTS/LTE
Frequency band	GSM dual band (B3; B8); E-UTRA bands (B1; B3; B5; B7; B8; B20; B38; B40; B41)
Baud rate (communication/fieldbus 1)	10/100 Mbit/s
Baud rate	ETHERNET: 10/100 Mbit/s

Technical data

Transmission medium (communication/fieldbus)	ETHERNET: Twisted pair S-UTP; 100 Ω; Cat. 5; 100 m maximum cable length
Main memory (RAM)	512 MB
Internal memory (flash)	4096 MB
Non-volatile hardware memory	128 KB
Program memory	32 MB
Data memory	128 MB
Non-volatile software memory	128 KB
Type of memory card	SD and SDHC up to 32 GB (all guaranteed properties only valid with WAGO Memory Card)
Memory card slot	Push-push mechanism; cover lid (sealable)
SIM card type	Mini-SIM; Temperature range: -20 ... +85 °C
SIM card slot	Push-push mechanism
Number of modules per node (max.)	250
Number of modules without a bus extension (max.)	64
Input and output process image (internal) max.	1000 words/1000 words
Input and output process image (Modbus®) max.	CODESYS V3: 32000 words/32000 words
Indicators	LED (SYS, RUN, I/O, MS, NS, USR, S1 ... S4, WDS, NET) red/green/orange: system status, program, local data bus, status programmable by user (can be used via CODESYS library), signal strength S1 ... S4, data service status; LED (CON, A, B) green: mobile network status, system power supply status, field supply status
Supply voltage (system)	24 VDC (-25 ... +30 %); via pluggable connector (CAGE CLAMP® connection)
Input current (typ.) at nominal load (24 V)	550 mA
Total current (system supply)	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; Modbus® RTU: 1 x D-sub 9 socket; RS-232 serial interface: 1 x D-sub 9 socket; RS-485 interface: 1 x D-sub 9 socket
Connection technology: system supply	2 x CAGE CLAMP®
Connection technology: field supply	6 x CAGE CLAMP®
Connection type 1	System/field supply
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Connection technology: antenna	1 x SMA socket
Connection technology: device configuration	1 x Male connector; 4-pole

Physical data

Width	102.5 mm / 4.035 inches
Height	100 mm / 3.937 inches
Depth	71.9 mm / 2.831 inches
Depth from upper-edge of DIN-rail	64.7 mm / 2.547 inches

Mechanical Data

Weight	301.7 g
Housing material	Polycarbonate; polyamide 6.6
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	0 ... +55 °C
Surrounding air temperature (storage)	-25 ... +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	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	3.798 MJ
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data

ETIM 8.0	EC000236
ETIM 7.0	EC000236
PU (SPU)	1 pcs
Country of origin	DE
GTIN	4055143984324
Customs tariff number	85371091990

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungs- stelle	TP TC 020/2011	EAC RU C-DE.AM02. B.00087/19
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-PFC750

Approvals for marine applications



Approval	Standard	Certificate Name
BSH Bundesamt fuer See- schiffahrt und Hydrogra- phie	-	1104
BV Bureau Veritas S.A.	Rules for class. of Steel Ships	66711/A0
KR Korean Register of Ship- ping	-	KR HMB05880-AC001

Downloads

Environmental Product Compliance



Compliance Search	
Environmental Product Compliance 750-8217	↓

Documentation

Manual			
Produktthandbuch PFC200; 2ETH RS 4G	1.7.0 29.08.2022	pdf 7170.77 KB	↓
System Manual WAGO I/O System 750/753	V 3.1.0 05.12.2022	pdf 8495.90 KB	↓
System Manual Series 750/753 ↓			
Product Manual OPC UA Mapping Editor	V 1.1.0 11.03.2022	pdf 3314.23 KB	↓
OPC-UA Mapping Editor ↓			
Product Manual Documentation WAGO Solution Builder	1.2.0 26.10.2022	pdf 9066.54 KB	↓

System Description		
Overview on WAGO-I/O-SYSTEM 750 approvals	pdf 770.48 KB	↓
Controller PFC100/200, General Product Information	pdf 578.66 KB	↓

Additional Information			
WAGO OPC UA Server	V 1.1.0 28.01.2021	pdf 1132.87 KB	↓

Bid Text		
750-8217	xml 10.72 KB	↓
750-8217	docx 18.78 KB	↓
ausschreiben.de 750-8217 ↓		

CAD/CAE-Data

CAD data	
2D/3D Models 750-8217	↓

CAE data	
EPLAN Data Portal 750-8217	↓

Engineering-Software

Configuration and Commissioning Software			
WAGUpload	1.16.0.0 02.02.2022	zip 11121.72 KB	↓

Runtime Software

Firmware			
Image Update (SD Karte) PFC100/200	V 22 SP1 12.12.2022	zip 205165.20 KB	

1 Compatible Products

1.1 Optional Accessories

1.1.1 Antenna

1.1.1.1 Antenna



Item No.: 758-975
Magnetic foot antenna; with 2.5m cable and SMA plug; GSM/ UMTS/ LTE/ Bluetooth®/ WLAN; 698-960, 1710-6000 MHz



Item No.: 758-974
Radio antenna; with 2m cable and SMA plug; GSM/ UMTS/ LTE/ Bluetooth®/ WLAN; 698-960, 1710-6000 MHz; 2G/3G/4G/5G



Item No.: 758-974/000-001
Radio antenna; with 2m cable and SMA plug; GSM/ UMTS/ LTE/ Bluetooth®/ WLAN; 698-960, 1710-6000 MHz; 2G/3G/4G/5G

1.1.2 Cables and connectors

1.1.2.1 Connecting cable



Item No.: 758-970/000-100
Connecting cable with SMA socket and SMA plug; Cable length 1 m; Cable type H155; GSM/ UMTS/ LTE/ Bluetooth®/ WLAN



Item No.: 758-970/000-1000
Connecting cable with SMA socket and SMA plug; Cable length 10 m; Cable type H155; GSM/ UMTS/ LTE/ Bluetooth®/ WLAN



Item No.: 758-970/000-300
Connecting cable with SMA socket and SMA plug; Cable length 3 m; Cable type H155; GSM/ UMTS/ LTE/ Bluetooth®/ WLAN



Item No.: 758-970/000-500
Connecting cable with SMA socket and SMA plug; Cable length 5 m; Cable type H155; GSM/ UMTS/ LTE/ Bluetooth®/ WLAN

1.1.2.2 Connector plug



Item No.: 750-979/000-011
Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568A; AWG 22; Strain relief



Item No.: 750-979/000-021
Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568A; AWG 24; Strain relief



Item No.: 750-979/000-012
Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568B; AWG 22; Strain relief



Item No.: 750-979/000-022
Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568B; AWG 24; Strain relief



Item No.: 750-977/000-011
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 22



Item No.: 750-978/000-011
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 22; Strain relief



Item No.: 750-977/000-021
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 24



Item No.: 750-978/000-021
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 24; Strain relief



Item No.: 750-977/000-012
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 22



Item No.: 750-978/000-012
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 22; Strain relief



Item No.: 750-977/000-022
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 24



Item No.: 750-978/000-022
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 24; Strain relief



Item No.: 750-975
ETHERNET RJ-45 connector, IP20; ETHERNET 10/100 Mbit/s; for field assembly

1.1.3 Communication

1.1.3.1 Bluetooth



Item No.: 750-921
Bluetooth® Adapter

1.1.3.2 Communication cable



Item No.: 750-923
Configuration cable; USB connector;
Length: 2.5 m



Item No.: 750-923/000-001
Configuration cable; USB connector;
Length: 5 m

1.1.4 DIN-rail

1.1.4.1 Mounting accessories



Item No.: 210-196
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



Item No.: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored



Item No.: 210-508
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored



Item No.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



Item No.: 210-506
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored



Item No.: 210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



Item No.: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



Item No.: 210-115
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; silver-colored



Item No.: 210-112
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored



Item No.: 210-504
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored



Item No.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



Item No.: 210-505
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored

1.1.5 Marking

1.1.5.1 Group marker carrier



Item No.: 750-107
Group marker carrier

1.1.5.2 Marker



Item No.: 2009-145/000-006
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



Item No.: 2009-145/000-007
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



Item No.: 2009-145/000-023
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



Item No.: 2009-145/000-012
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



Item No.: 2009-145/000-005
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



Item No.: 2009-145/000-024
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



Item No.: 2009-145
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



Item No.: 2009-145/000-002
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



Item No.: 248-501/000-006
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue



Item No.: 248-501/000-007
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray



Item No.: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green



Item No.: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green

1.1.5.2 Marker



Item No.: 248-501/000-012

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange

Item No.: 248-501/000-005

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red

Item No.: 248-501/000-024

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet

Item No.: 248-501

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



Item No.: 248-501/000-002

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow

1.1.5.3 Marker carrier



Item No.: 750-103

Group marker carrier

1.1.6 Memory card

1.1.6.1 Memory card



Item No.: 758-879/000-2108

Memory Card SD; pSLC-NAND; 8 GB; Temperature range: -40 to 90°C

Item No.: 758-879/000-001

Memory Card SD; SLC-NAND; 2 GByte; Temperature from -40 to 90 °C

1.1.7 Shield termination

1.1.7.1 Shield clamping saddles



Item No.: 790-108

Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm

Item No.: 790-208

Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm

Item No.: 790-116

Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm

Item No.: 790-216

Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm



Item No.: 790-124

Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm

Item No.: 790-220

Shield clamping saddle; 30 mm wide; 6 ... 20 mm

Item No.: 790-140

Shield clamping saddle; diameter of compatible conductor

1.1.8 Software

1.1.8.1 Basic version



Item No.: 2759-101/1110-4000

e!COCKPIT; Buy-out License

Item No.: 2759-101/1110-2005

e!COCKPIT; Multi-User License; 05 pcs

Item No.: 2759-101/1110-2010

e!COCKPIT; Multi-User License; 10 pcs

Item No.: 2759-101/1110-2015

e!COCKPIT; Multi-User License; 15 pcs



Item No.: 2759-101/1110-2020

e!COCKPIT; Multi-User License; 20 pcs

Item No.: 2759-101/1110-3000

e!COCKPIT; Site License

Item No.: 2759-101/1110-2002

e!COCKPIT; Workstation License

1.1.8.2 Software applications



Item No.: 2759-206/261-1000
Application Energy Data Management; Single License; Online activation



Item No.: 2759-2015/260-1000
Application Grid Gateway; Single License



Item No.: 2759-2015/261-1000
Application Grid Gateway; Single License; Online activation

Item No.: 2759-120/1121-1000
e!COCKPIT MTP; Single License; Online activation



Item No.: 2759-245/211-1000
Library Controller Redundancy Master; Single License; Online activation



Item No.: 2759-208/211-1000
Library MTP; Single License; Online activation



Item No.: 2759-207/271-1000
Visualization Energy Data Management; Single License; Online activation

1.1.9 System enclosure

1.1.9.1 System enclosure



Item No.: 850-825
IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20



Item No.: 850-826
IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-827
IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-828
IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



Item No.: 850-826/002-000
IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-827/002-000
IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-828/002-000
IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



Item No.: 850-834
IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20



Item No.: 850-835
IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-836
IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-814/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate



Item No.: 850-815/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate



Item No.: 850-816/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate



Item No.: 850-817/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate