

Technical data	
Communications	Modbus TCP master/slave Modbus (UDP), WagoAppPlcModbus Library Modbus (RTU), WagoAppPlcModbus Library ETHERNET EtherNet/IP™ Adapter (slave) EtherNet/IP™ Scanner EtherCAT® Master OPC UA Server/Client OPC UA Pub/Sub (can be installed later) MQTT BACnet/IP, requires an additional license Telecontrol protocols, requires an additional license
ETHERNET protocols	DHCP DNS NTP FTP FTPS SNMP HTTP HTTPS SSH
Telecontrol protocols	IEC 60870 (additional license as slave or master) IEC 61850 (additional license as Client or Server) DNP3 (additional license as Slave or Master)
Visualization	Web-Visu
Operating system	Real-time Linux (with PREEMPT_RT 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	CODESYS V3.5, Firmware Release 23 or higher e! COCKPIT (based on CODESYS V3) up to Firmware Release 22 WAGO-I/O-PRO V2.3 (based on CODESYS V2.3), up to Firmware Release 22
Configuration options	CODESYS V3 e! COCKPIT WAGO-I/O-CHECK Web-Based Management e! RUNTIME library CODESYS Library
Transmission rate	ETHERNET: 10/100 Mbit/s; Fiber optic: 100 Mbit/s
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	CODESYS V2: 16 MB; CODESYS V3: 32 MB
Data memory	CODESYS V2: 64 MB; CODESYS V3: 128 MB
Non-volatile software memory	128 KB
Non-volatile software memory	128 KB
Type of memory card	SD and SDHC 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.)	64
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 V2: 1000 words/1000 words; CODESYS V3: 32000 words/32000 words
Drift – system clock (25 °C)	20 ppm
Drift – Real Time Clock (25 °C)	3 ppm
RTC backup time (25 °C)	30 days
Indicators	LED (SYS, RUN, I/O, U1 ... U7) red/green/orange: Status of system, program, local data bus, status programmable by user (can be used via CODESYS library); LED (A, C) green: Status of system power supply, field supply
Derating	Derating (supply voltage): Ambient temperatures under laboratory conditions: (-25 ... +30 %); for -40 ... +55 °C: 24 V (-25 ... +20 %); for +55 ... +70 °C: 24 V (-25 ... +10 %); Lower limit in all temperature ranges: -27.5 % (including 15 % residual ripple)

Technical data

Supply voltage (system)	24 VDC; via pluggable connector (CAGE CLAMP® connection); Derating must be observed!
Input current (typ.) at nominal load (24 V)	550 mA
Total current (system supply)	1700 mA
Supply voltage (field)	24 VDC; Power supply via pluggable connector (CAGE CLAMP® connection); Transmission via power jumper contacts; Derating must be observed!
Current carrying capacity (power jumper contacts)	10 A
Number of outgoing power jumper contacts	2
Rated impulse withstand voltage	1 kV

Connection Data

Connection technology: communication/fieldbus	Modbus (TCP, UDP): 2 x RJ-45; 2 x SFP slots (e.g., with SFP module and LC fiber-optic connector)
Connection technology: system supply	2 x CAGE CLAMP®
Connection technology: field supply	4 x CAGE CLAMP®
Connectable conductor materials	Copper
Connection type	System/field supply
Solid conductor	0.25 ... 2.5 mm ² / 24 ... 14 AWG
Fine-stranded conductor	0.25 ... 2.5 mm ² / 24 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Connection technology: device configuration	1 x Male connector; 4-pole

Physical data

Width	78.6 mm / 3.094 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

Mounting type	DIN-35 rail
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Material data

Housing material	Polycarbonate; polyamide 6.6
Fire load	2.488 MJ
Weight	333.6 g
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	-40 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Ambient temperature (installation)	-20 ... +70 °C
Protection type	IP20
Pollution degree	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.)
Mounting position	Horizontal left, horizontal up, vertical top and vertical bottom
Relative humidity (without condensation)	95 %
Relative humidity (with condensation)	Short-term condensation per Class 3K7/IEC EN 60721-3-3 and E-DIN 40046-721-3 (except for wind-driven precipitation, water and ice formation)
Vibration resistance	According to type test for marine classification (ABS, BV, DNV, IACS, LR): acceleration: 0.7g, IEC 60068-2-6, EN 60870-2-2, IEC 60721-3-1, -3, EN 50155, EN 61373
Shock resistance	per IEC 60068-2-27 (10g/16 ms/half-sine/1,000 shocks; 25g/6 ms/half-sine/1,000 shocks), EN 50155, EN 61373

Environmental requirements

EMC immunity to interference	per EN 61000-6-1, -2; EN 61131-2; marine applications; EN 50121-3-2; EN 50121-4, -5; 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, EN 61850-3, EN 50121-3-2, EN 50121-4, -5
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43
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

PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4066966100907
Customs tariff number	85371091990

Product Classification

UNSPSC	32151705
ETIM 9.0	EC000236
ETIM 10.0	EC000236
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 693-98-1 7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol 2-methylimidazole Diboron trioxide Lead Lead monoxide Perfluorobutane sulfonic acid (PFBS) and its salts
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	3d990742-d443-47a7-8d16-c90d457fd031
SCIP notification number (Belgium)	7a88adab-dc33-46db-9d6a-e933075a188d
SCIP notification number (Bulgaria)	c43b9fbc-b7c9-4db0-9bf2-56ac3860e1fb
SCIP notification number (Czech Republic)	64ca2167-bd3f-44d3-89eb-919a17ba9d6b
SCIP notification number (Denmark)	26dc0445-bbdf-48d7-9692-c70a6d56a12f
SCIP notification number (Finland)	58c961c1-7e45-4462-84f5-83d98b8b4cce
SCIP notification number (France)	c265a80a-6c82-4aab-8a23-d622c9843d43
SCIP notification number (Germany)	c3c72bd7-f891-4d51-b087-d045a2e61438
SCIP notification number (Hungary)	67c8cbfe-d6f4-461a-add0-d9fd7e2ebb13
SCIP notification number (Italy)	0e06a35b-9210-4887-b95b-454fa9e181b0
SCIP notification number (Netherlands)	d253d325-6590-4938-b3a4-6f0623c705aa
SCIP notification number (Poland)	2c905a7c-1701-4860-95ce-b3f3e69f70ba
SCIP notification number (Romania)	020f49b2-ef3a-446e-8d3d-b2140df75680
SCIP notification number (Sweden)	f5770968-fde4-4804-abe4-133c1b5718c5

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-PFC750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	-	E175199

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications



Approval	Standard	Certificate Name
PRS Polski Rejestr Statków	-	TE/1099/880590/23

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 750-8211/040-000	↓
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Documentation

Manual			
Product Manual PFC200; G2; 2ETH 2SFP; (TELE;) XTR	1.8.0 / FW 26 27.11.2023	pdf 4795.76 KB	↓

System Description	
Controller PFC200 XTR, General Product Information	pdf 489.22 KB ↓

Additional Information

WAGO OPC UA Server	V 1.1.0 28.01.2021	pdf 1132.87 KB	↓
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CAD/CAE-Data

CAD data	CAE data
2D/3D Models 750-8211/040-000	EPLAN Data Portal 750-8211/040-000
	ZUKEN Portal 750-8211/040-000

Engineering-Software

Configuration and Commissioning Software			
CODESYS V3.5		png 315.13 KB	
(759-316) WAGO Ethernet Settings / Serie 750	06.18.01.01 02.09.2021	zip 26678.54 KB	
WAGUpload	1.16.1.0 02.02.2022	zip 12111.45 KB	

Runtime Software

Firmware			
Image Update (SD Karte) PFC100/200 für Codesys V2.3 u. Elcockpit	V 22 SP1 12.12.2022	zip 205815.20 KB	
PFC200, Firmware Update für CoDeSys V3.5	V 23 24.02.2023	zip 167985.38 KB	
WUP Update (WAGUploadTool) PFC100/200 Codesys V2,3 u. Elcockpit	V 22 SP1 12.12.2022	zip 203580.70 KB	

1 Compatible Products

1.1 Product Expansions

1.1.1 Runtime software

<p>Item No.: 2759-2283/211-1000 Runtime; BACnet; 300; M; Single License; Online activation</p>	<p>Item No.: 2759-2273/211-1000 Runtime; BACnet; 300; S; Single License; Online activation</p>	<p>Item No.: 2759-283/211-1000 Runtime; BACnet; 300; Single License; Online activation</p>	<p>Item No.: 2759-2293/211-1000 Runtime; DNP3 Master; M; Single License; Online activation</p>
<p>Item No.: 2759-2290/211-1000 Runtime; DNP3 Slave; Single License; Online activation</p>	<p>Item No.: 2759-293/211-1000 Runtime; IEC60870 Master; M; Single License; Online activation</p>	<p>Item No.: 2759-290/211-1000 Runtime; IEC60870 Slave; Single License; Online activation</p>	<p>Item No.: 2759-2243/211-1000 Runtime; IEC61850 Client; M; Single License; Online activation</p>
<p>Item No.: 2759-2240/211-1000 Runtime; IEC61850 Server; Single License; Online activation</p>	<p>Item No.: 2759-248/211-1000 Runtime; Multi Cloud Connectivity; Single License; Online activation</p>	<p>Item No.: 2759-247/211-1000 Runtime; Sparkplug; Single License; Online activation</p>	

1.2 Optional Accessories

1.2.1 DIN-rail

1.2.1.1 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.: 210-197

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



Item No.: 210-114

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.: 210-112

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.: 210-113

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

1.2.2 Marking

1.2.2.1 Group marker carrier



Item No.: 750-107

Group marker carrier

1.2.2.2 Marker



Item No.: 2009-145/000-006

Mini-WSB In-line; 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 In-line; 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 In-line; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



Item No.: 2009-145/000-017

Mini-WSB In-line; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green



Item No.: 2009-145/000-012

Mini-WSB In-line; 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 In-line; 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 In-line; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



Item No.: 2009-145

Mini-WSB In-line; 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 In-line; 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



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

1.2.2.3 Marker carrier



Item No.: 750-103

Group marker carrier

1.2.3 Memory card

1.2.3.1 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

1.2.4 Plug

1.2.4.1 SFP module



Item No.: 852-202

SFP Module 100BASE; FX Multi-Mode
1310 nm LC; 2 km; DDM; Extreme; silver-
colored

1.2.5 Shield termination

1.2.5.1 Shield clamping saddles



Item No.: 790-108

Shield clamping saddle; 11 mm wide; dia-
meter 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; dia-
meter 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; dia-
meter 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 com-
patible conductor

1.2.6 Software

1.2.6.1 Software Application



Item No.: 2759-2015/261-1000

Application Grid Gateway; Single License;
Online activation

1.2.7 System enclosure

1.2.7.1 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