



Note:
 For this item, a successor is available: Modbus TCP [750-891](#); EtherNet/IP™ 750-893

The ETHERNET Controller connects the modular WAGO I/O System to ETHERNET.

The controller detects all connected I/O modules and creates a local process image. This process image may include a mixed arrangement of analog (word-by-word data transfer) and digital (bit-by-bit data transfer) modules.
 Two ETHERNET interfaces and an integrated switch allow the fieldbus to be wired in a line topology, eliminating the need for additional network devices, such as switches or hubs. Both interfaces support autonegotiation and Auto-MDI(X).
 The DIP switch configures the last byte of the IP address and may be used for IP address assignment.
 The controller is designed for fieldbus communication in both EtherNet/IP and MODBUS networks. It also supports a wide variety of standard ETHERNET protocols (HTTP, BootP, DHCP, DNS, SNTp, SNMP, FTP).
 An integrated Webserver provides user configuration options, while displaying the controller's status information.
 The IEC 61131-3 programmable controller is multitasking-capable and features a capacitor-backed RTC.

Technical data	
Communication	EtherNet/IP™ Modbus (TCP, UDP) ETHERNET
ETHERNET protocols	HTTP BootP DHCP DNS SNTp FTP SNMP
Visualization	Web-Visu
CPU	32 bits

Technical data

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	WAGO-I/O-PRO V2.3 (based on CODESYS V2.3)
Configuration options	WAGO-I/O-CHECK Web-Based Management
Baud rate (communication/fieldbus 1)	10/100 Mbit/s
Baud rate	10/100 Mbit/s
Transmission medium (communication/fieldbus)	Twisted pair S-UTP; 100 Ω; Cat. 5; 100 m maximum cable length
Transmission performance	Class D per EN 50173
Program memory	1024 KB
Data memory	512 KB
Non-volatile software memory	32 KB
Number of modules per node (max.)	250
Number of modules without a bus extension (max.)	64
Input and output process image (fieldbus) max.	1020 Worte/1020 Worte
Indicators	LED (LINK/ACT) green: Network connection via ports 1 ... 2; LED (MS, NS) red/green: Status of node, network; LED (I/O, USR) red/green/orange: Local data bus status, status programmable by user; LED (A, B) green: System power supply status, field supply
Supply voltage (system)	24 VDC (-25 ... +30 %); via pluggable connector (CAGE CLAMP® connection)
Input current (typ.) at nominal load (24 V)	500 mA
Power supply efficiency (typ.) at nominal load (24 V)	90 %
Current consumption (5 V system supply)	450 mA
Total current (system supply)	1700 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	EtherNet/IP™: 2 x RJ-45; Modbus TCP/UDP: 2 x RJ-45
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: device configuration	1 x Male connector; 4-pole

Physical data

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

Mechanical data

Weight	159.2 g
Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	0 ... +55 °C
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	3.527 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

Product Group	15 (Remote I/O)
eCl@ss 10.0	27-24-26-07
eCl@ss 9.0	27-24-26-07
PU (SPU)	1 Stück
Packaging type	Box
Country of origin VKOrg Germany	DE
GTIN	4050821086826
Customs tariff number VKOrg Germany	85371091990
End of Sale	2019-12-15
End of Production	2019-12-20
End of Delivery	2019-12-30
End of Service and Repair	2021-12-14

Approvals and certificates

Ex-Approvals



Approval	Standard	Certificate name
ATEX TUEV Nord Cert GmbH	EN 60079-0	
CCCEX CQST/CNEX	CNCA-C23-01	2020312310000215 (Ex nA IIC T4 Gc)
EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02. B.00163/19 (2Ex nA IIC T4 Gc X)
IECEX TUEV Nord Cert GmbH	IEC 60079-0	IECEX_TUN_14.0035_X (Ex ec IIC T4 Gc)

Ex-Approvals

INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079-0	BR-Ex_TÜV 12.1297 X
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

Country specific Approvals



Approval	Standard	Certificate name
EAC Brjansker Zertifizierungs- stelle	TP TC 020/2011	EAC RU C-DE.AM02. B.00087/19

Ship Approvals



Approval	Standard	Certificate name
BV Bureau Veritas S.A.	-	30389/B1 BV
DNV DNV Germany GmbH	DNV-CG-0339, Aug.2021	TAA0000194
KR Korean Register of Ship- ping	-	KR HMB05880-AC001
PRS Polski Rejestr Statków	-	TE/2236/880590/19

UL-Approvals



Approval	Standard	Certificate name
UL Underwriters Laboratories Inc. (ORDINARY LOCATI- ONS)	UL 508	E175199 Sec.1

Downloads

Documentation

Manual			
	V 1.5.0	pdf 13126.29 KB	↓
System Manual WAGO I/O System 750 / 753	V 3.1.0 11.05.2022	pdf 8495.90 KB	↓
WAGOupload	V 9.1.0 07.02.2022	pdf 4070.37 KB	↓
WAGO MODBUS Mas- ter Configurator	V 1.1.0	pdf 1761.59 KB	↓

Quick-Start Guide			
Programmable Fieldbus Controller ETHERNET 750-88x	V 1.0.0	pdf 4292.44 KB	↓
Quickstart Starterkit 750-881	V 1.1.0	pdf 4524.94 KB	↓

System Description

Overview on WAGO-I/ O-SYSTEM 750 appro- vals		pdf 770.48 KB	↓
750 Controller, General Product Information		pdf 507.50 KB	↓
Use in Hazardous Envi- ronments	V 1.0.0	pdf 1007.06 KB	↓

Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 259.56 KB	↓
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Bid Text			
750-881	19.02.2019	xml 6.47 KB	↓
750-881	19.05.2015	doc 28.50 KB	↓

Application Notes

Application Note CoDeSys 2.3			
HART Tool Routing via ETHERNET with 750-820x/750-88x and CODESYS 2.3 (a116120)	1.0.0 22.03.2019	pdf 3798.36 KB	↓
Using the web visualization with Java™ runtime environment (JRE, JVM) 7 update 51 (7u51) (a500690)	V1.2.4 26.02.2019	zip 4896.43 KB	↓
Application Note PowerMeasurement_03 Library	19.01.2011 19.03.2012	zip 932.08 KB	↓
Application Note DaylightSaving	02.04.07 08.11.2011	zip 666.41 KB	↓
Application Note: DMX_02	26.04.2017 26.04.2017	zip 733.43 KB	↓
HVAC System Macros	10.03.2017 15.03.2019	zip 13252.92 KB	↓
Application Note: Mp-Bus_03 Library	2020-08-14 14.08.2020	zip 513.66 KB	↓
Connection of a Thermokon Thanos SR L MODBUS room control unit to the WAGO-I/O-SYSTEM	02.05.2013 13.05.2013	zip 305.89 KB	↓
Anbindung der HKW-Elektronik Wetterprognose-Station WS-K xx T ModBus	V 1.1 07.07.2017	zip 762.78 KB	↓
Application Note Scheduler_03.lib	20.05.2011 20.05.2011	zip 1717.92 KB	↓
Application Note Connecting with an iPod Touch	30.03.2011 28.10.2011	zip 428.79 KB	↓
GRUNDFOS GENibus interface, application note	20.03.2017 20.03.2017	zip 279.86 KB	↓
Connection of Thermokon Multi-function room control units WRF 08	10.04.2019 10.04.2019	zip 855.84 KB	↓
Connection of DMX devices to the WAGO-I/O-SYSTEM via the ArtNet-DMX STAGE-PROFI 1.1	11.01.2013 11.01.2013	zip 1450.63 KB	↓
Connection of Thermokon Multi-function room control units WRF 06	10.04.2019 08.04.2016	zip 826.10 KB	↓
Application Note for the 750-494 3-Phase Power Measurement Module	24.01.2014 11.11.2014	zip 1629.99 KB	↓
Application Note: EnOcean_06 Library	30.11.2016 30.11.2016	zip 822.25 KB	↓

Application Note CoDeSys 2.3			
Application Note for the 750-495 3-Phase Power Measurement Module	24.01.2014 24.01.2014	zip 1806.18 KB	↓
Application Note Weather Station Elsner P03 Modbus	01.12.2011 28.10.2011	zip 269.09 KB	↓
Application note: DALI 753-647 Configuration Interface	V1.0.2 29.04.2019	zip 3032.71 KB	↓
HLK-Anlagenmakros für TRIC	2015-07-10 10.07.2015	zip 74963.43 KB	↓
Application Note Library ModuleAccess_01	05.01.2016 29.01.2016	zip 1001.22 KB	↓

CAD/CAE-Data

CAD data		CAE data	
2D/3D Models 750-881	↓	EPLAN Data Portal 750-881	↓
		WSCAD Universe 750-881	↓
		ZUKEN Portal 750-881	↓

Engineering-Software

Configuration and Commissioning Software			
WAGO-IO-PRO Demo-Version (759-912) / Serie 750, 758 und 762	V 2.3.9.68 17.02.2022	zip 122377.05 KB	↓
WAGO BootPServer / Serie 750 und 767	1.0 07.03.2000	zip 1051.01 KB	↓
WAGO Extension Setting / Serie 750	2.0.2 09.03.2011	zip 5319.62 KB	↓
(759-316) WAGO Ethernet Settings / Serie 750	06.15.03.02 02.09.2021	exe 19568.17 KB	↓

Runtime Software

Firmware			
0750-0881, Controller ETHERNET	V 16 27.07.2021	zip 3357.35 KB	↓

Device Files

Device Driver			
WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 10.09.2014	zip 4721.96 KB	↓

Libraries

Device Description File				Library			
MIB-Datei für Ethernet-Controller / Serie 750	2.0 03.04.2012	zip 5.99 KB	↓	WagoLibFTPS_01	V 1.15 14.01.2019	zip 406.70 KB	↓
750-915; EDS-Dateien für EthernetIP / Serie 750, 765 and 767	12 09.07.2021	zip 164.42 KB	↓	WagoLibConfigETH_01	1.0.0	pdf 381.48 KB	↓

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

Current addresses can be found at: www.wago.com