This item has been discontinued and as of 30.06.2019, can no longer be delivered.

Data sheet | Item number: 750-873

Controller ETHERNET; 2nd Generation; RS-232; light gray

www.wago.com/750-873

Item description

This controller connects the WAGO I/O System to ETHERNET.

It 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.

It permits data transmission rates of 10/100 Mbit/s and is programmable in accordance with IEC 61131-3. The controller provides 512 KB program memory, 256 KB data memory and 24 KB retain memory.

It is capable of multitasking, has a battery-backed, real-time clock and is based on a 32-bit CPU.

The controller offers many different application protocols for control tasks (MODBUS, EtherNet/IP) or for system management and diagnostics (HTTP, BootP, DHCP, DNS, AutoIP, SNTP, FTP, SNMP and SMTP).

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The integrated RS-232 interface communicates with external devices. The controller can also be addressed as a MODBUS RTU slave via RS-232 interface.

Data
Technical Data

Communication	EtherNet/IP Modbus (TCP, UDP) Ethernet Modbus RTU RS-232 serial interface
Ethernet protocol	HTTP BootP DHCP DNS SNTP FTP SNMP
Visualization	Web Visu
CPU	32 bits
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 (communication/fieldbus 2)	9,6 kBd … 115,2 kBd
Baud rate	ETHERNET: 10/100 Mbit/s; Serial interface: 9,6 kBd … 115,2 kBd
Fieldbus segment length max.	ETHERNET: 100 m; Serial interface: 15 m
Transmission medium (communication/fieldbus)	ETHERNET: Twisted Pair S-UTP; 100 Ω; Cat. 5; Serial interface: Shielded Cu cable 2 (4) x 0.25 mm²
Program memory	512 kByte
Data memory	256 kByte
Software non-volatile memory	24 Kbytes
Memory for fieldbus input variables max.	512 Byte
Memory for fieldbus output variables max.	512 Byte
Number of modules per node max.	250
Number of I/O modules without bus extension max.	64

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Input and output process image (Fieldbus) max.	1953.125 Byte/1953.125 Byte
Indicators	LED (LINK/ACT) green: Network connection; 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
System supply voltage	DC 24 V(-25 … +30 %); via pluggable connector (CAGE CLAMP® connection)
Input current typ. at rated load (24 V)	500 mA
Efficiency of the power supply (typ.) at nominal load (24 V)	87 %
Current consumption, system supply (5 V)	300 mA
Total current for system supply	1,700 mA
Field supply voltage	DC 24 V (-25 … +30 %); via power jumper contacts
Current carrying capacity of the 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: 1 x RJ-45; Modbus TCP/UDP: 1 x RJ-45; Modbus RTU: 1 x D-Sub 9 socket; RS-232 serial 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 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

Geometrical Data

Width	50,5 mm / 1.988 inch
Height	71,1 mm / 2.799 inch
Height from upper-edge of DIN-35 rail	63,9 mm / 2.516 inch
Depth	100 mm / 3.937 inch

Mechanical data

Weight	193.4 g
Color	light gray
Housing material	Polycarbonate, polyamide 6.6

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Conformity marking	CE

Environmental Requirements

Surrounding air (operating) temperature	0 … 55 °C
Surrounding air (storage) temperature	-25 … 85 °C
Protection class	IP20
Degree of pollution (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 air humidity (no condensation)	95 %
Mounting position	any
Type of mounting	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
Permissible H_2S 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)
Packaging type	BOX
Country of origin	DE
GTIN	4045454618230
Customs Tariff No.	85371091990

Approvals / Certificates

Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
PTB 0102	**ATEX** TUEV Nord Cert GmbH	EN 60079-0	TÜV 07 ATEX 554086 X en.
	TUEV Nord	IEC 60079-0	IECEx

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IECEx	TUEV Nord Cert GmbH		TUN 09.0001 X
UL	**UL** Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
ABS	**ABS** American Bureau of Shipping	-	19-HG1821926
BV	**BV** Bureau Veritas S.A.	-	30389/B0 BV
DNV GL	**DNV GL** Det Norske Veritas, Germanischer Lloyd	-	TAA0000194
KR	**KR** Korean Register of Shipping	-	KR HMB05880-AC001
NK	**NK** Nippon Kaiji Kyokai	-	TA17255M
PRS	**PRS** Polski Rejestr Statków	-	TE/2236 /880590/19

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
UL	**UL** UL International Netherlands B.V. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

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Counterpart

Compatible products

Carrier rail

	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	www.wago.com/210-112
	Item no.: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715	www.wago.com/210-113
	Item no.: 210-114 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715	www.wago.com/210-114
	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	www.wago.com/210-115
	Item no.: 210-118 Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715	www.wago.com/210-118
	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	www.wago.com/210-196
	Item no.: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715	www.wago.com/210-197
	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	www.wago.com/210-198
	Item no.: 210-504 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715	www.wago.com/210-504
	Item no.: 210-505 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715	www.wago.com/210-505
	Item no.: 210-506 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715	www.wago.com/210-506
	Item no.: 210-508 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715	www.wago.com/210-508

software

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	Item no.: 759-333 WAGO-I/O-PRO	www.wago.com/759-333
	Item no.: 759-333/000-923 WAGO-I/O-PRO; USB-Set	www.wago.com/759-333/000-923
	Item no.: 759-911 WAGO-I/O-PRO; CD	www.wago.com/759-911

system box

	Item no.: 850-804 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip	www.wago.com/850-804
	Item no.: 850-804/000-001 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 2 x M20, 13 x M16, 32 x M12 cable grip	www.wago.com/850-804/000-001
	Item no.: 850-805 IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip	www.wago.com/850-805
	Item no.: 850-814/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate	www.wago.com/850-814/002-000
	Item no.: 850-815/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate	www.wago.com/850-815/002-000
	Item no.: 850-816/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate	www.wago.com/850-816/002-000
	Item no.: 850-817/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate	www.wago.com/850-817/002-000
	Item no.: 850-825 IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20	www.wago.com/850-825
	Item no.: 850-826 IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	www.wago.com/850-826
	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	www.wago.com/850-826/002-000
	Item no.: 850-827 IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	www.wago.com/850-827
	Item no.: 850-827/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable	www.wago.com/850-827/002-000

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	grip	
	Item no.: 850-828 IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	www.wago.com/850-828
	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	www.wago.com/850-828/002-000
	Item no.: 850-834 IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20	www.wago.com/850-834
	Item no.: 850-835 IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	www.wago.com/850-835
	Item no.: 850-836 IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	www.wago.com/850-836

Marking accessories

	Item no.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	www.wago.com/2009-145
	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; white	www.wago.com/2009-145/000-002
	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	www.wago.com/2009-145/000-005
	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	www.wago.com/2009-145/000-006
	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; white	www.wago.com/2009-145/000-007
	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	www.wago.com/2009-145/000-012
	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	www.wago.com/2009-145/000-023
	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	www.wago.com/2009-145/000-024
	Item no.: 248-501 Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card	www.wago.com/248-501

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	Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow	www.wago.com/248-501/000-002
	Item no.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red	www.wago.com/248-501/000-005
	Item no.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue	www.wago.com/248-501/000-006
	Item no.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray	www.wago.com/248-501/000-007
	Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange	www.wago.com/248-501/000-012
	Item no.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green	www.wago.com/248-501/000-017
	Item no.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green	www.wago.com/248-501/000-023
	Item no.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet	www.wago.com/248-501/000-024
	Item no.: 750-100 Marker card; as a DIN A4 sheet; plain; white	www.wago.com/750-100
	Item no.: 750-103 Group marker carrier; transparent	www.wago.com/750-103
	Item no.: 750-106 Group marker carrier; transparent	www.wago.com/750-106
shield connection		
	Item no.: 790-108 Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 … 8 mm	www.wago.com/790-108
	Item no.: 790-116 Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 … 16 mm	www.wago.com/790-116
	Item no.: 790-124 Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 … 24 mm	www.wago.com/790-124
	Item no.: 790-140 Shield clamping saddle; diameter of compatible conductor	www.wago.com/790-140

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	Item no.: 790-208 Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm	www.wago.com/790-208
	Item no.: 790-216 Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm	www.wago.com/790-216
	Item no.: 790-220 Shield clamping saddle; 30 mm wide; 6 ... 20 mm	www.wago.com/790-220
General accessories		
	Item no.: 750-921 Bluetooth® Adapter; light gray	www.wago.com/750-921
	Item no.: 750-923 Configuration cable; USB connector; Length: 2.5 m; black	www.wago.com/750-923
	Item no.: 750-923/000-001 Configuration cable; USB connector; Length: 5 m	www.wago.com/750-923 /000-001

Downloads

Documentation

Manual

ETHERNET TCP/IP & RS232 Programmable Fieldbus Controller 10/100 Mbit/s; digital and analog signals	V 1.2.0	pdf 9.0 MB	Download

Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download

System Description

Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 780.2 kB	Download
Design Notes Basic conditions and recommendations for higher operational safety	V 2.0.0	pdf 1.5 MB	Download
Use in Hazardous Environments Term definition, marking and installation regulations	V 1.0.0	pdf 1.0 MB	Download
750 Controller, General Product Information		pdf 621.9 kB	Download

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Libraries

Library

Support for OpenDataPort-Protocol The library WagoLibODP_05.lib act as the counter part to Videc's Alarm and Logger-Software "ODP-Config" version 2.7. The Open-Data-Port(ODP) protocol is a bidirectional extension of the modbus protocol. Current and historic data will collect via a local modbus slave implementation. Messages, errors and alarms will be tranmitted event driven by a local modbus master implementation. The principal item of this library is program ODP_AGENT, it covers the functionalities of a class 0 modbus master and slave. This library make extensive use of global variables to allow the user a deeper view into the internals. Tested with ODP-Config version: - 2.7(SP1) - 2.7(SP3)	V1.0.0 Oct 27, 2016	zip 83.5 kB	Download

Engineering-Software

Configuration and Commissioning Software

WAGO-IO-PRO Demo-Version (759-912) / Serie 750, 758 und 762	2.3.9.55 Jul 3, 2015	zip 108.3 MB	Download
(759-316) WAGO Ethernet Settings / Serie 750	6.10.06.12 Mar 29, 2019	exe 20.2 MB	Download
WAGOupload Small Version WAGOupload ist eine eigenstandige PC-Software zur Übertragung, Sicherung und Wiederherstellung von SPS-Applikationen auf WAGO Controllern der Serie 750	1.12.0.0 Mar 30, 2020	zip 5.6 MB	Download
WAGOupload Full Version WAGOupload ist eine eigenstandige PC-Software zur Übertragung, Sicherung und Wiederherstellung von SPS-Applikationen auf WAGO Controllern der Serie 750.	1.12.0.0 Mar 30, 2020	zip 55.2 MB	Download
WAGO BootPServer / Serie 750 und 767	1.0 Mar 7, 2000	zip 1.1 MB	Download
WAGO Extension Setting / Serie 750	2.0.2 Mar 9, 2011	zip 5.4 MB	Download

CAD/CAE-Data

CAD data

2D/3D Models 750-873	URL	Download

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CAE data

EPLAN Data Portal 750-873	URL	Download
WSCAD Universe 750-873	URL	Download

Device Files

Device Driver

WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 Sep 10, 2014	zip 4.8 MB	Download

Device Description File

750-915; EDS-Dateien für EthernetIP / Serie 750 und 767	11 Nov 12, 2019	zip 93.6 kB	Download
MIB-Datei für Ethernet-Controller / Serie 750	2.0 Apr 3, 2012	zip 6.1 kB	Download

Installation Notes

Product family

Controller 750
Show all products from the family

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