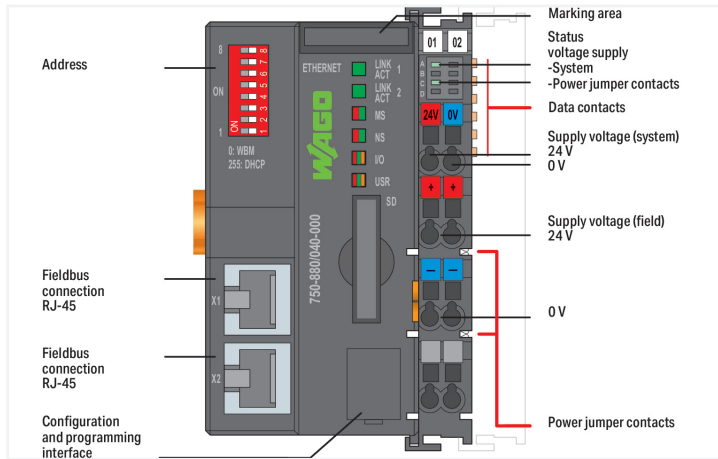


Color: ■ dark gray



The ETHERNET Controller can be used as a programmable controller within ETHERNET networks in conjunction with the WAGO I/O System. The controller supports all digital, analog and specialty modules found within the 750/753 Series, and is suitable for data rates of 10/100 Mbit/s. 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 supports both MODBUS/TCP and EtherNet/IP for use in industrial environments. It also supports a wide variety of standard ETHERNET protocols for easy integration into IT environments (e.g., HTTP, BootP, DHCP, DNS, SNTP, SNMP, FTP). For telecontrol applications, the 750-880/040-001 Controller supports the IEC 60870-5-101/-103-104, IEC 61850-7 and IEC 61400-25 communication protocols. 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. A data memory of 1 MB is available. The 750-880 Controller is equipped with a removable memory card slot. A memory card can be used to transfer device parameters or files (e.g., boot files) from one controller to another. The memory card can be accessed via FTP and be used as an additional drive.

**The device is ideal for operation in extreme environments thanks to:**

- An extended temperature range
- Greater immunity to impulse voltages and electromagnetic interference
- Higher vibration and shock resistance

Technical data	
Communications	EtherNet/IP™ Modbus (TCP, UDP) ETHERNET
ETHERNET protocols	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
Transmission 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	1024 KB
Non-volatile software memory	32 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
Input and output process image (fieldbus) max.	1020 words/1020 words
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
Derating	Total current (system supply): 1700 mA (ambient temperature (operation) < 60 °C); 1500 mA (ambient temperature (operation): 60 ... 70 °C); 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)
Supply voltage (system)	24 VDC; via pluggable connector (CAGE CLAMP® connection); Derating must be observed!
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; 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
Ratings per	IEC/EN 60664-1
Rated impulse withstand voltage	1 kV

### 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	4 x CAGE CLAMP®
Connection type	System/field supply
Solid conductor	0.25 ... 2.5 mm <sup>2</sup> / 24 ... 14 AWG
Fine-stranded conductor	0.25 ... 2.5 mm <sup>2</sup> / 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	61.5 mm / 2.421 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

Color	dark gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	1.752 MJ
Weight	167 g
Conformity marking	CE

### Environmental requirements


Ambient temperature (operation)	-40 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °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: 5g, 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
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 <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	
Product Group	15 (I/O System)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4050821460121
Customs tariff number	85371091990
End of Sale	2022-01-31
End of Production	2023-02-28
End of Delivery	2023-03-31
End of Service and Repair	2026-12-31

Product Classification	
UNSPSC	32151705
eCl@ss 10.0	27-24-26-07
eCl@ss 9.0	27-24-26-07
ETIM 9.0	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 80-43-3
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 Peroxide, bis(1-methyl-1-phenylethyl)
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Bulgaria)	a0b20404-0427-468d-9204-5fb55802fea6
SCIP notification number (Czech Republic)	1247cb98-37e9-4db3-8203-b25a45d36a8b

### Approvals / Certificates

General approvals			Declarations of conformity and manufacturer's declarations					
								
			<b>Approval</b>	<b>Standard</b>	<b>Certificate Name</b>	<b>Approval</b>	<b>Standard</b>	<b>Certificate Name</b>
KC	Article 58-2, Clause 3	MSIP-REM-W43-PFC750	EU-Declaration of Confor-	-	-	mity	-	-
National Radio Research Agency			WAGO GmbH & Co. KG					

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	22-2208829-PDA
LR Lloyds Register	-	LR22276776TA
PRS Polski Rejestr Statków	-	TE/1099/880590/23

Approvals for hazardous areas



Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV 17 ATEX 193969X (II 3 G Ex ec IIC T4 Gc)
CCC CNEX	CNCA-C23-01	2020312310000214 (Ex ec IIC T4 Gc)
IECEX TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 16.0046X (Ex ec IIC T4 Gc)
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX005X_ec

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 750-880/040-000	<a href="#">↓</a>
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Documentation

Manual

Product Manual ETHER- NET Controller /XTR	V 1.4.0 30.03.2020	pdf 14053.52 KB	<a href="#">↓</a>
Product Manual WAGO MODBUS Master Confi- gurator	V 1.1.0	pdf 1761.59 KB	<a href="#">↓</a>

Bid Text

750-880/040-000	19.02.2019	xml 9.87 KB	<a href="#">↓</a>
750-880/040-000	26.06.2019	docx 20.85 KB	<a href="#">↓</a>

Instruction Leaflet

CCC Ex (Additional in- formation)	26.04.2023	pdf 144.58 KB	<a href="#">↓</a>
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CAD/CAE-Data

CAD data

2D/3D Models 750-880/040-000	<a href="#">↓</a>
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CAE data

EPLAN Data Portal 750-880/040-000	<a href="#">↓</a>
WSCAD Universe 750-880/040-000	<a href="#">↓</a>
ZUKEN Portal 750-880/040-000	<a href="#">↓</a>

## Engineering-Software

### Configuration and Commissioning Software

(759-316) WAGO Ethernet Settings / Serie 750	06.18.01.01 02.09.2021	zip 26678.54 KB	
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## Runtime Software

### Firmware

0750-0880/0xx-00x, Controller ETHERNET	V 17 01.07.2022	zip 2937.08 KB	
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## Device Files

### Device Driver

WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 10.09.2014	zip 4721.96 KB	
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## Libraries

### Device Description File

MIB-Datei für Ethernet-Controller / Serie 750	2.0 03.04.2012	zip 5.99 KB	
750-915; EDS-Dateien for EthernetIP / Serie 750, 765 and 767	12 09.07.2021	zip 164.42 KB	

## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 Cables and connectors

##### 1.1.1.1 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

1.1.1.1 Connector plug



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

1.1.2 Communication

1.1.2.1 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

1.1.3 DIN-rail

1.1.3.1 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.: 210-115**  
 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.: 210-113**  
 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

1.1.4 Marking

1.1.4.1 Group marker carrier



**Item No.: 750-107**  
 Group marker carrier

1.1.4.2 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

1.1.4.2 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

1.1.4.3 Marker carrier



**Item No.: 750-103**  
Group marker carrier

1.1.5 Memory card

1.1.5.1 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

1.1.6 Shield termination

1.1.6.1 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 System enclosure

1.1.8.1 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

1.1.8.1 System enclosure



**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