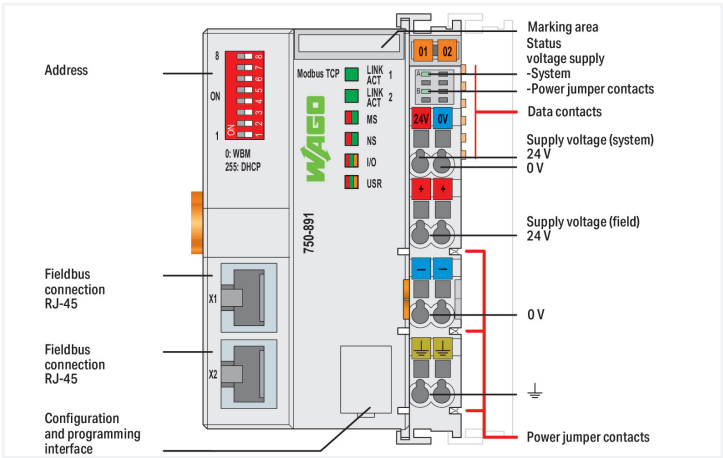
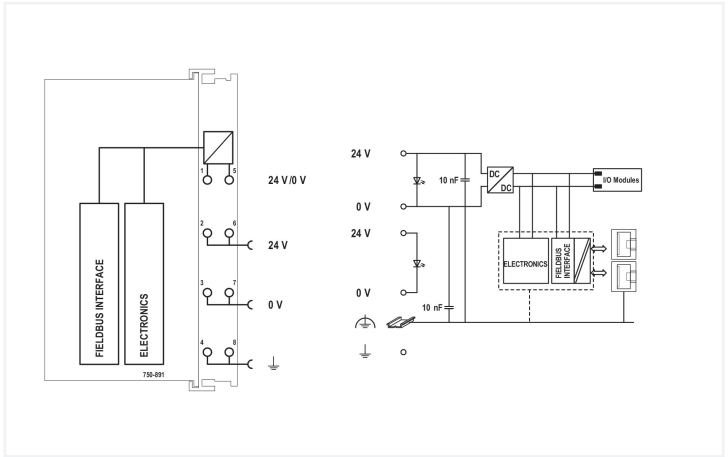




The Modbus TCP Controller can be used as a programmable controller within ETHERNET networks in conjunction with the WAGO I/O System.

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 Modbus® networks. It also supports a wide variety of standard ETHERNET protocols (e.g., HTTP(S), BootP, DHCP, DNS, SNTP, (S)FTP, SNMP).

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	Modbus (TCP, UDP)
ETHERNET protocols	HTTP(S) BootP DHCP DNS SNTP FTP(S) 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)



Technical data	
Configuration options	WAGO-I/O-CHECK Web-Based Management CODESYS Library
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	4 MB
Data memory	4 MB
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 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
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)	390 mA
Total current (system supply)	1700 mA
Supply voltage (actuator)	N/A N/A
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
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 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	
Weight	149.9 g
Housing material	Polycarbonate; polyamide 6.6
Conformity marking	CE



Environmental requirements	
Ambient temperature (operation)	0 ... +55 °C
Ambient temperature (storage)	-25 ... +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.)
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	2.429 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	
eCl@ss 10.0	27-24-26-07
eCl@ss 9.0	27-24-26-07
ETIM 8.0	EC000236
ETIM 7.0	EC000236
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143821513
Customs tariff number	85371091990

Environmental Product Compliance	
CAS-No.	1303-86-2 1314-23-4 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 Zirconium Oxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	c5b3e813-eb0b-445b-af50-f19b04fe5f4b
SCIP notification number (Belgium)	c97e0334-35ae-406e-8fd0-a27da4fa2e06
SCIP notification number (Bulgaria)	436d76be-0d80-4b9c-9516-9dfb46c83823
SCIP notification number (Czech Republic)	e8bba3ac-3c64-4688-9cc5-c2bf313a7753
SCIP notification number (Denmark)	3e87f316-4cf1-4039-84cc-2538a51b0f38
SCIP notification number (Finland)	ab4133a3-4233-4a76-95f8-2f4cff85e2c5
SCIP notification number (France)	d4dbae29-1a33-411b-a1ec-10983250c027
SCIP notification number (Germany)	a842d43c-957c-48ac-9697-7383445dd428
SCIP notification number (Hungary)	497c149c-4f29-4842-a540-b6434648dcc2
SCIP notification number (Italy)	33d2d232-c3c5-41d3-b42b-12796622d10b
SCIP notification number (Netherlands)	86fbf79c-60fd-4b7f-bf1c-b30f5d7edebb
SCIP notification number (Poland)	14093575-ee9e-479f-a19b-30231d2d9472



Environmental Product Compliance	
SCIP notification number (Romania)	bdd60dbb-0206-4cd2-8188-b0575853abc8
SCIP notification number (Sweden)	c22d1014-6c24-4342-876a-6d2f9c5eac2e

Approvals / Certificates	
General approvals	Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
CCC CNEX	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
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

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

Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	22-2219060
BSH Bundesamt fuer See- schifffahrt und Hydrogra- phie	-	1104
BV Bureau Veritas S.A.	Rules for class. of Steel Ships	66711/A0
DNV DNV GL SE	DNV-CG-0339,Aug.2021	TAA0000194
KR Korean Register of Ship- ping	-	KR HMB05880-AC001
LR Lloyds Register EMEA	-	LR22180952TA
PRS Polski Rejestr Statków	-	TE/2236/880590/19
RINA RINA Germany GmbH	-	ELE343521XG001

Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	
EAC Brjansker Zertifizierungs- stelle	TP TC 012/2011	EAC RU C-DE.AM02. B.00163/19 (2Ex e IIC T4 Gc X)
IECEx TUEV Nord Cert GmbH	IEC 60079-0	IECEx TUN 14.0035 X (Ex ec IIC T4 Gc)
INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079-0	BR-Ex_TÜV 12.1297 X
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX003X_ec
UL Underwriters Laboratories Inc. (HAZARDOUS LOCA- TIONS)	UL 121201	E198726 Sec.1

Downloads
Environmental Product Compliance



Compliance Search			
Environmental Product Compliance 750-891			↓

Documentation			
Manual		System Description	
Product Manual Con- troller Modbus TCP; G4; 2ETH	V 1.1.1 25.05.2022	pdf 7532.08 KB	↓
System Manual WAGO I/O System 750/753	V 3.3.0 04.05.2023	pdf 8548.45 KB	↓
System Manual Series 750/753			↓
		Overview on WAGO-I/ O-SYSTEM 750 appro- vals	pdf 770.48 KB ↓
		750 Controller, General Product Information	pdf 507.50 KB ↓

Bid Text			
750-891	19.11.2018	doc 32.50 KB	↓
750-891	19.02.2019	xml 7.98 KB	↓
ausschreiben.de 750-891			↓

Instruction Leaflet			
CCC Ex (Additional in- formation)	26.04.2023	pdf 159.76 KB	↓

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 750-891	EPLAN Data Portal 750-891
↓	↓
	ZUKEN Portal 750-891
	↓

Engineering-Software			
Configuration and Commissioning Software			
WAGO-IO-PRO Demo- Version (759-912) / Se- rie 750, 758 und 762	V 2.3.9.68 17.02.2022	zip 122524.17 KB	↓
(759-316) WAGO Ether- net Settings / Serie 750	06.18.01.01 02.09.2021	zip 26678.54 KB	↓
WAGOUpload	1.16.1.0 02.02.2022	zip 12111.45 KB	↓

Runtime Software

Firmware

0750-089x, Controller

V 10
10.02.2022zip
4643.77 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

**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.: 210-508**

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

1.1.3.1 Mounting accessories



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; unslopped; according to EN 60715; silver-colored



Item No.: 210-505

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

1.1.4 Marking

1.1.4.1 Group marker carrier



Item No.: 750-106

Group marker carrier

1.1.4.2 Marker



Item No.: 750-100

Marker card; as a DIN A4 sheet; plain



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

1.1.4.3 Marker carrier



Item No.: 750-103

Group marker carrier

1.1.5 Shield termination

1.1.5.1 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

1.1.6 Software



1.1.6.1 Basic version



Item No.: 759-333
WAGO-I/O-PRO

Item No.: 759-333/000-923
WAGO-I/O-PRO; USB-Set