



The ETHERNET Controller combines control functionality, I/O interface and ETHERNET in one device. Application programming is IEC 61131-3 compliant. Function blocks allow both clients and servers to be programmed via socket APIs for all transport protocols (e.g., TCP, UDP).

Features and applications:

- Decentralized control to optimize support for a PLC or PC
- Devide complex applications into individually testable units
- Programmable fault response in the event of fieldbus failure
- Signal pre-processing to reduce fieldbus transmissions
- Directly control peripheral equipment for faster system response times
- Stand-alone, compact controller

Technical data	
Communication	Modbus (TCP, UDP) ETHERNET
ETHERNET protocols	HTTP BootP
Visualization	none
CPU	16 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
Cycle time	

Technical data

Baud rate (communication/fieldbus 1)	10 Mbit/s
Baud rate	10 Mbit/s
Bus segment length (max.)	100 m
Transmission medium (communication/fieldbus)	Twisted pair S-UTP; 100 Ω; Cat. 5
Program memory	128 KB
Data memory	64 KB
Non-volatile software memory	8 KB
Memory for fieldbus input variables (max.)	512 bytes
Memory for fieldbus output variables (max.)	512 bytes
Number of modules per node (max.)	64
Input and output process image (fieldbus) max.	512 bytes/512 bytes
Indicators	LED (ON, LINK, TxD/RxD) green: Fieldbus initialization, network connection, data exchange; LED (ERROR) red: Fieldbus error; 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)	87 %
Current consumption (5 V system supply)	200 mA
Total current (system supply)	1800 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	Modbus TCP/UDP: 1 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	50.5 mm / 1.988 inches
Height	100 mm / 3.937 inches
Depth	71.1 mm / 2.799 inches
Depth from upper-edge of DIN-rail	63.9 mm / 2.516 inches

Mechanical data

Weight	179 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)	-25 ... +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 61000-6-4, marine applications
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43
Fire load	3.387 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
ETIM 8.0	EC000236
ETIM 7.0	EC000236
PU (SPU)	1 Stück
Packaging type	Box
Country of origin VKOrg Germany	DE
GTIN	4045454527198
Customs tariff number VKOrg Germany	85371091990

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

Country specific Approvals



Approval	Standard	Certificate name
EAC Brjansker Zertifizierungsstelle	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

Ship Approvals



Approval	Standard	Certificate name
ABS American Bureau of Shipping	-	22-2219060
BSH Bundesamt fuer Seeschifffahrt und Hydrographie	-	1104
BV Bureau Veritas S.A.	-	13453/E0 BV
DNV DNV Germany GmbH	DNV-CG-0339,Aug.2021	TAA0000194
KR Korean Register of Shipping	-	KR HMB05880-AC001
LR Lloyds Register EMEA	-	LR22180952TA
PRS Polski Rejestr Statków	-	TE/2236/880590/19
RINA RINA Germany GmbH	-	ELE343521XG001

UL-Approvals



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

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 750-842 ↓

Documentation

Manual			
ETHERNET TCP/IP Programmable Fieldbus Controller	V 2.3.0	pdf 5713.65 KB	↓
System Manual WAGO I/O System 750 / 753	V 3.1.0 11.05.2022	pdf 8495.90 KB	↓
System Manual Series 750/753			↓

Quick-Start Guide			
Quick Start ETHERNET Fieldbus Controller 750-842	V 1.0.3	pdf 415.00 KB	↓

System Description

Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 770.48 KB	↓
750 Controller, General Product Information		pdf 507.50 KB	↓
Use in Hazardous Environments	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			
750-842	19.02.2019	xml 6.42 KB	↓
750-842	22.07.2015	doc 33.00 KB	↓

Application Notes				
Application Note CoDeSys 2.3			Application note, other	
HART-Module 750-482 on the ETHERNET-Controller (a116100)	V1.0.0 06.08.2008	zip 877.08 KB	↓	
	V1.0.0 28.11.2002	zip 255.21 KB	↓	
				Anbindung an MCPS Datenerfassungs Software (a116400)
				V1.1.1 20.05.2009
				zip 395.96 KB
				↓

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 750-842	EPLAN Data Portal 750-842
↓	↓
	WSCAD Universe 750-842
	↓
	ZUKEN Portal 750-842
	↓

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	↓
(759-316) WAGO Ethernet Settings / Serie 750	06.15.03.02 02.09.2021	exe 19568.17 KB	↓

Runtime Software			
Firmware			
0750-0842, Controller ETHERNET	V 19 21.10.2021	zip 747.82 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				
MIB-Datei für Ethernet-Controller / Serie 750	2.0 03.04.2012	zip	5.99 KB	↓

Library				
Condition monitoring with 750-645	1.0.1 27.07.2011	zip	110.12 KB	↓
Modbusmaster for Ethernet	1.0.0 24.01.2013	zip	408.91 KB	↓
Control DC motor with 750-636	1.0.0 08.11.2017	zip	146.93 KB	↓
Connecting HART-Modules 750-482 and 750-484	3.1.0 19.01.2018	zip	323.26 KB	↓
Sending E-Mails based on "Ethernet.lib"	1.0.1 20.01.2004	zip	311.24 KB	↓