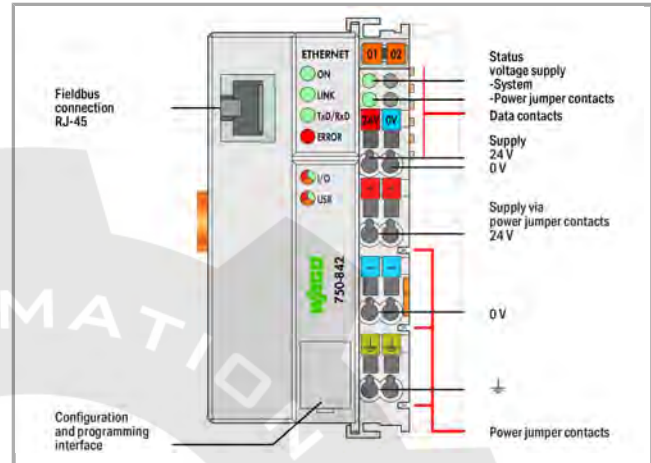
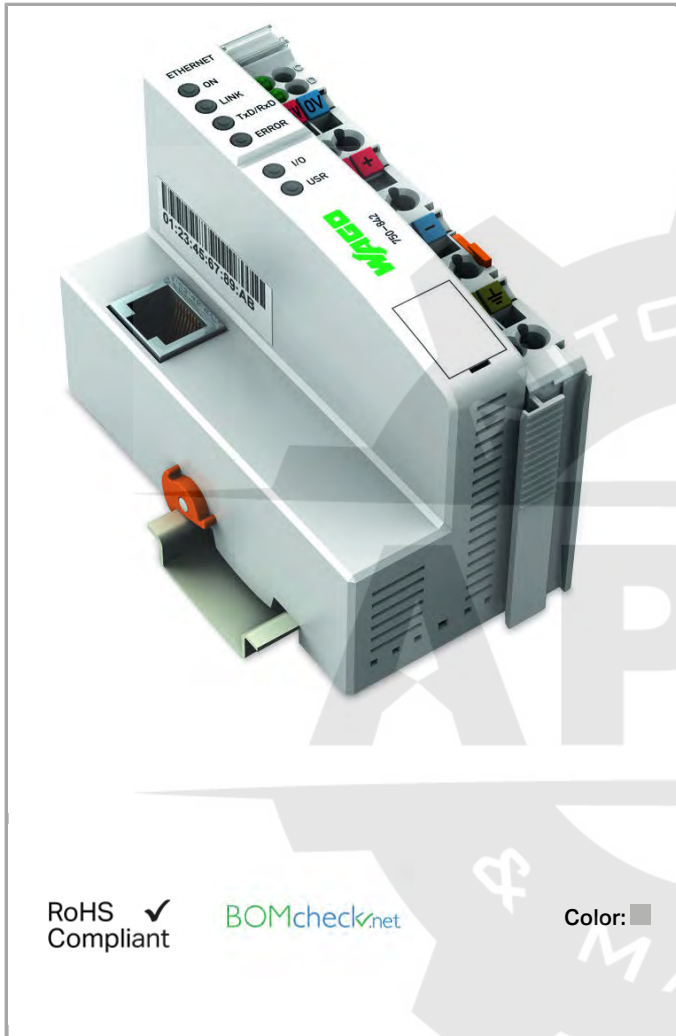


Data sheet | Item number: 750-842
Controller ETHERNET; 1st Generation



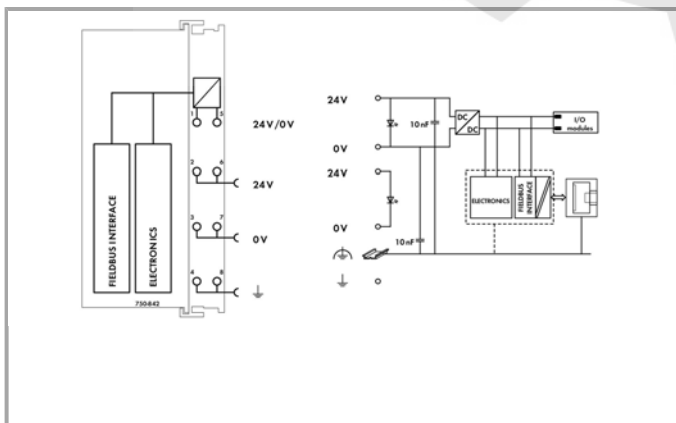
750-842

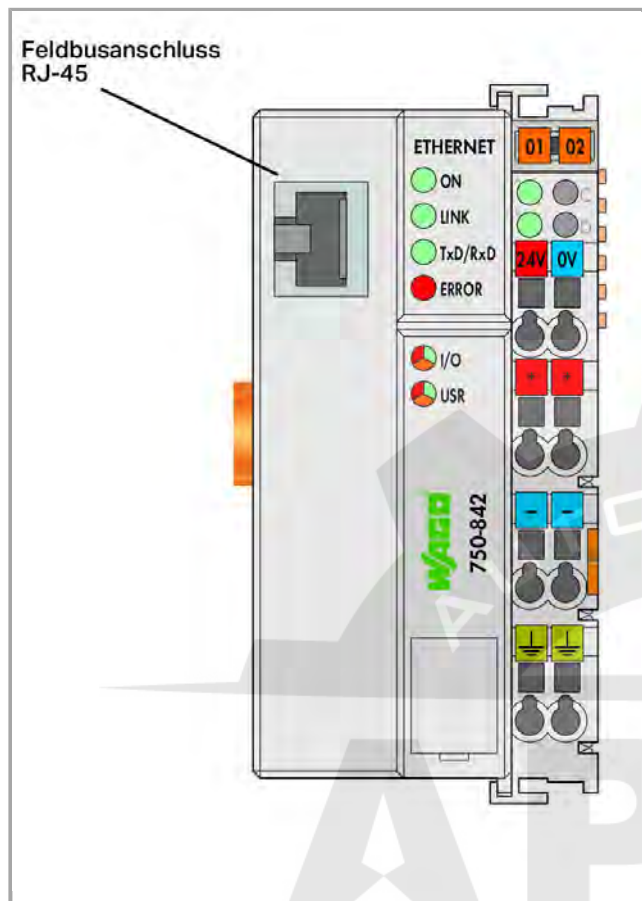


RoHS
Compliant

BOMcheck.net

Color: ■





Item description

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
- Divide 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

Data

Technical Data

Communication

Modbus (TCP, UDP)
Ethernet



Ethernet protocol	HTTP BootP
Visualization	without
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	< 3ms for 1,000 statements / 256 dig. I/Os
Baud rate	-
Fieldbus segment length max.	100 m
Transmission medium (communication/fieldbus)	Twisted Pair S-UTP; 100 Ω; Cat. 5
Program memory	128 kByte
Data memory	64 kByte
Software non-volatile memory	8 Kbytes
Memory for fieldbus input variables max.	512 Byte
Memory for fieldbus output variables max.	512 Byte
Number of modules per node max.	64
Input and output process image (Fieldbus) max.	512 Byte/512 Byte
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: Internal 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 wiring level (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)	200 mA
Total current for system supply	1800 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/supply

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 inch
Connection technology: Device configuration	1 x 4-pole male connector

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	179 g
Color	light gray
Housing material	Polycarbonate, polyamide 6.6
Conformity marking	1

Environmental Requirements

Surrounding air (operating) temperature	0 ... 55 °C
Surrounding air (storage) temperature	-40 ... 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); max.: 5000 m
Relative air humidity (no condensation)	95 %
Mounting position	any
Type of mounting	DIN-35 rail
Vibration resistance	4g per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Fire load	3.166 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

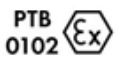
Commercial data

Product Group	15 (Remote I/O)
---------------	-----------------

Country of origin	DE
GTIN	4045454527198
Customs Tariff No.	85371091990

Approvals / Certificates

Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TÜV 07 ATEX 554086 X en.
	TUEV Nord TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 09.0001 X

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP- REM-W43- PFC750

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG1821926
	BV Bureau Veritas S.A.	-	13453/DO BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAA0000194
	KR Korean Register of Shipping	-	HMB05880- AC001
	LR Lloyds Register	-	02/20026 (E5)



NK
Nippon Kaiji Kyokai

-

TA17255M



PRS
Polski Rejestr Statków

-

TE/2236
/880590/19



RINA
RINA Germany GmbH

-

ELE134212XG

UL-Approvals

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

Compatible products

software



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

759-333



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

759-333

/000-923



Item no.: 759-911
WAGO-I/O-PRO; CD

759-911

General accessories



Item no.: 750-921
Bluetooth® Adapter

750-921



Item no.: 750-923
Configuration cable; USB connector; Length: 2.5 m

750-923



Item no.: 750-923/000-001
Configuration cable; USB connector; Length: 5 m

750-923

/000-001

system box



Item no.: 850-804
IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip

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

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

850-805



Item no.: 850-814/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate

850-814

/002-000



Item no.: 850-815/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate

850-815

/002-000



Item no.: 850-816/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate

850-816

/002-000



Item no.: 850-817/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate

850-817

/002-000



Item no.: 850-825
IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20

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

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

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

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 grip

850-827

/002-000



Item no.: 850-828
IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip

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

850-828

/002-000



Item no.: 850-834
IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20

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

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

850-836

Marking accessories**Item no.: 2009-145**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

**Item no.: 2009-145/000-002**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-002

2009-145

**Item no.: 2009-145/000-005**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-005

2009-145

**Item no.: 2009-145/000-006**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-006

2009-145

**Item no.: 2009-145/000-007**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-007

2009-145

**Item no.: 2009-145/000-012**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-012

2009-145

**Item no.: 2009-145/000-023**

Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-023

2009-145

**Item no.: 2009-145/000-024**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-024

2009-145

**Item no.: 248-501**

Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card

248-501

**Item no.: 248-501/000-002**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-002

248-501

**Item no.: 248-501/000-005**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-005

248-501

**Item no.: 248-501/000-006**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-006

248-501

**Item no.: 248-501/000-007**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-007

248-501



Item no.: 248-501/000-012
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-012

248-501



Item no.: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-017

248-501



Item no.: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-023

248-501



Item no.: 248-501/000-024
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-024

248-501



Item no.: 750-100
Marker card; as a DIN A4 sheet; plain

750-100



Item no.: 750-103
Group marker carrier

750-103



Item no.: 750-106
Group marker carrier

750-106

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

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

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

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

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

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

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

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

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

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

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

210-506

**Item no.: 210-508**

210-508

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715

wiring and connectors**Item no.: 750-975**

750-975

ETHERNET RJ-45 connector, IP20; ETHERNET 10/100 Mbit/s; for field assembly

**Item no.: 750-977/000-011**

750-977

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 22

/000-011

**Item no.: 750-977/000-012**

750-977

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 22

/000-012

**Item no.: 750-977/000-021**

750-977

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 24

/000-021

**Item no.: 750-977/000-022**

750-977

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 24

/000-022

**Item no.: 750-978/000-011**

750-978

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 22; Strain relief

/000-011

**Item no.: 750-978/000-012**

750-978

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 22; Strain relief

/000-012

**Item no.: 750-978/000-021**

750-978

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 24; Strain relief

/000-021

**Item no.: 750-978/000-022**

750-978

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 24; Strain relief

/000-022

**Item no.: 750-979/000-011**

750-979

Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568A; AWG 22; Strain relief

/000-011

**Item no.: 750-979/000-012**

750-979

Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568B; AWG 22; Strain relief

/000-012

**Item no.: 750-979/000-021**

750-979

Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568A; AWG 24; Strain relief

/000-021

**Item no.: 750-979/000-022**

750-979

Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568B; AWG 24; Strain relief

/000-022

shield connection**Item no.: 790-108**

790-108

Shield clamping saddle; 11 mm wide; diameter of compatible conductor

	Item no.: 790-116 Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm	790-116
	Item no.: 790-124 Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm	790-124
	Item no.: 790-140 Shield clamping saddle; diameter of compatible conductor	790-140
	Item no.: 790-208 Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm	790-208
	Item no.: 790-216 Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm	790-216
	Item no.: 790-220 Shield clamping saddle; 30 mm wide; 6 ... 20 mm	790-220

Downloads

Documentation

Manual

ETHERNET TCP/IP Programmable Fieldbus Controller 10 Mbit/s; digital and analog signals	V 2.3.0	pdf 5.9 MB	Download
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Quick-Start Guide

Quick Start ETHERNET Fieldbus Controller 750-842	V 1.0.3	pdf 425.0 kB	Download
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Bid Text

750-842 IO, Controller	Apr 4, 2012	doc 33.8 kB	Download
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Additional Information

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

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

Application Notes

Application Note CoDeSys 2.3

HART-Module 750-482 on the ETHERNET-Controller (a116100)

V1.0.0

zip
898.1 kB

[Download](#)

This application note describes the connection of any HART sensor to the WAGO ETHERNET Controller 750-841 using the TH102 from ABB, for example. The connection is made via the HART Module 750-482 and "WagoLibHART_03.lib" CODESYS library. Section 3 describes the creation of a PLC program that reads and processes data from the HART sensor cyclically. Section 4 describes the execution of device-specific HART commands, e.g., Promag23 from Endress&Hauser. Section 5 describes the parameterization of the HART sensor from the FDT/DTM frame application "WAGOframe".

Application note, other

Anbindung an MCPS Datenerfassungs Software (a116400)

V1.1.1

zip
405.5 kB

[Download](#)

MCPS (Multi Channel Process System) ist eine PC-basierte Datenerfassungssoftware, die auf den Betriebssystemen Windows2000, XP, Vista oder höher läuft. Alle Meß- und Auswerteaufgaben werden allein durch Konfiguration der Software vorgenommen. MCPS ist KEINE grafische Programmieroberfläche und kann somit leicht von jedem Anwender bedient werden.

Libraries

Library

Condition monitoring with 750-645

V1.0.1

zip
112.8 kB

[Download](#)

The WagoLib_VIO.lib library provides a function block which allows to configure the module 750-645.

Modbusmaster for Ethernet

V1.0.0

zip
418.7 kB

[Download](#)

The ModbusEthernet_04.lib library provides the user with the two function modules, ETHERNET_MODBUSMASTER_UDP and ETHERNET_MODBUSMASTER_TCP. With these modules, a data exchange can be set up with several Modbus TCP / UDP slaves. The ETHERNET_MODBUSMASTER_UDP module should be used in preference, as this enables faster data transfer. The ETHERNET_TERMINAL_MODBUSSLAVE module is also included in the library. This module provides a Modbus server, which maps the Modbus services to a word array.

Control DC motor with 750-636

V1.0.0

zip
150.5 kB

[Download](#)

The MC1_DC_Control.lib library provides a function block which allows to configure the module 750-636 as well as to operate a DC motor.

Sending E-Mails based on Ethernet.lib

V1.0.1

zip
318.7 kB

[Download](#)

Sending E-Mails with an 750-842 based on the Ethernet.lib.

Connecting HART-Modules 750-482 and 750-484



The library WagoLibHART_03.lib offers a set of function blocks to execute HART-commands (Revision 5) in a PLC program. The principal item of this library is program HART_INFO, it identifies connected HART modules like 750-482 and coordinates the Kbus access. In addition you find with HART_FDT program that act as counterpart to WAGO-ModbusTCP-HART-DTM, who enable configuration of HART devices with every FDT-Frameapplication like WAGOframe.

V3.1.0

zip
331.0 kB[Download](#)

Engineering-Software

Configuration and Commissioning Software

WAGO BootPServer / 750 and 767 Series	1.0 Mar 7, 2000	zip 1.1 MB	Download
WAGO-IO-PRO Demo-Version (759-912) / Serie 750, 758 und 762	2.3.9.55 Jul 3, 2015	zip 108.3 MB	Download
WAGO Ethernet Settings / 750 Series 759-316	6.8.2.2 Aug 5, 2015	exe 16.0 MB	Download
WAGO Extension Setting / 750 Series	2.0.2 Mar 9, 2011	zip 5.4 MB	Download

Runtime Software

Firmware

Firmware: 750-842 Controller ETHERNET; 1st Generation	19 Feb 26, 2018	zip 624.8 kB	Download
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CAD/CAE - Smart Data

CAD data

3D Download 750-842		URL	Download
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Device Files

Device Description File

MIB file for Ethernet controller / 750 Series	2.0 Apr 3, 2012	zip 6.1 kB	Download
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Device Driver

WAGO USB Service Cable Driver / 750 and 857 Series 759-923	6.5.3.0 Sep 10, 2014	zip 4.8 MB	Download
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Product family

Controller 750

[Learn more about the product family.](#)

[Show all products from the family](#)



Subject to changes.
