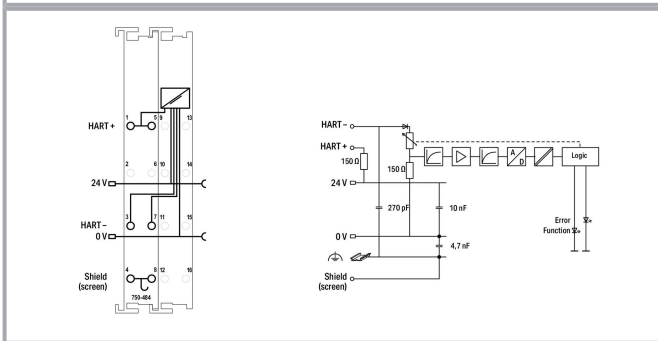
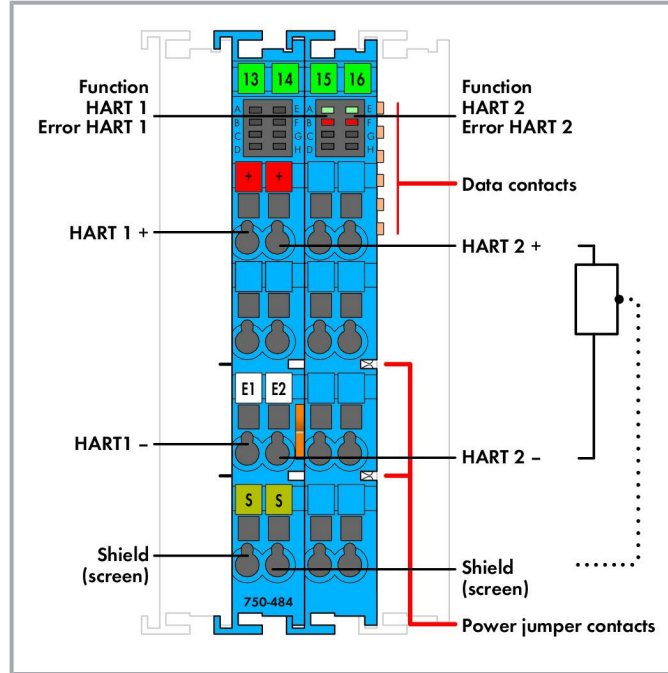




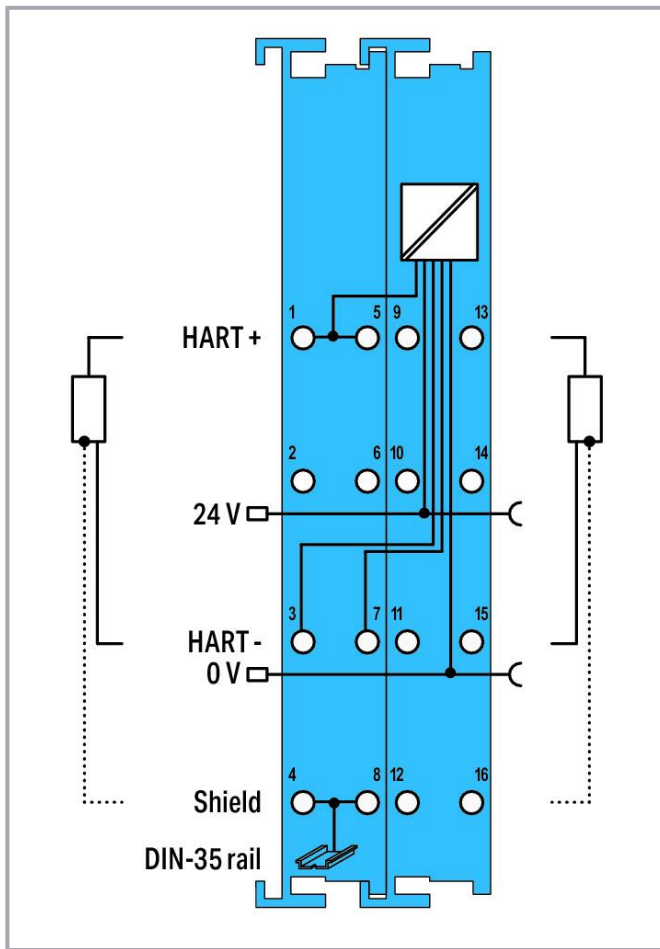
Color: ■



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Item description

This analog input module connects two field-side signal conditioners equipped with a HART interface that are to be used in hazardous areas of Zone 0+1.

The module supplies signal conditioners, reads process values via analog interface, and enables HART communication for configuring and importing dynamic variables.

The WAGO I/O System 750 must be installed either in Zone 2 or in a non-hazardous area.

The 24 V supply is supplied to the field contacts (HART +) from the power jumper contacts via multipliers. The shield directly connects to the DIN-rail.

The measurement input is equipped with current limitation, which limits the current to 25 mA. This module powers 2-wire signal conditioners without dedicated power supply.

Up to 4 HART dynamic variables (PV, SV, TV, QV) per channel can be mapped in the cyclic process image of the coupler or controller (parameterizable). For HART communication with connected intelligent HART field devices, the HART protocol can be mapped in the cyclic process image of the coupler or controller (parameterizable).

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FDT/DTM device drivers are available for select (programmable) couplers, allowing HART tool routing to the connected HART device.

Data Notes

Note	The analog input module must only be operated via 24 VDC Ex i!
	General information (e.g., installation regulations) on explosion protection is available in the WAGO I/O System 750 manuals!

Technical data

Number of analog inputs	2
Total number of channels (module)	2
Signal type	Current
Signal type (current)	4 ... 20 mADC
Supply voltage (sensor)	16.5 VDC; Transmitter supply U_V at 20 mA
Sensor connection	2 x (2-wire)
Input filter	parameterizable
Input filter: parametrizable (channel by channel)	yes
Signal characteristics	Single-ended
Diagnostics	Wire break, measurement range overflow
Resolution [bit]	12 bits
Power consumption P_{max}	1.60 W (with slaves (20 mA))
Data width	2 x 2-byte data; 2 x 2-byte data + 2n x 4-byte data (n = number of dynamic variables); 2 x 2-byte data + 6-byte mailbox
Overvoltage protection	30 V, reverse polarity protected
Conversion time (typ.)	10 ms
Measurement error (reference temperature)	25 °C
Measurement error, deviation (max.) from the upper-range value	0.2 %
Temperature error (max.) of the upper-range value	0.01 %/K
Intrinsic safety Ex i	yes
Configuration options	WAGO-I/O-CHECK e!COCKPIT
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	25 mA
Supply voltage (field)	24 VDC; (Ex i power supply: $U_O = max. 27.3 V$); via power jumper

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	contacts (power supply via blade contact; transmission via spring contact)
Current consumption, field supply (module with no external load)	26 mA
HART devices per channel	1 device (single-drop, no multi-drop)
HART modems per channel	1 modem (no multiplex)
Power loss P_I	0.62 W (without slaves)
Isolation	300 VAC system/field
Indicators	LED (A, E) green: Function HART 1, HART 2; LED (B, F) red: Error HART 1, HART 2
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity (power jumper contacts)	1 A
Marking	ATEX/IECEx: II 3 (1) G Ex ec [ia Ga] IIC T4 Gc; II (1) D [Ex ia Da] IIIC; I (M1) [Ex ia Ma] I

Explosion protection

Ex standard	EN IEC 60079-0, -7, -11
Safety-relevant data (circuit)	$U_o = 27.3 \text{ V}$; $I_o = 92.7 \text{ mA}$; $P_o = 630 \text{ mW}$; Linear characteristic curve
Reactances Ex ia IIC	$L_o = 1.5 \text{ mH}$; $C_o = 87 \text{ nF}$
Reactances Ex ia IIB	$L_o = 15 \text{ mH}$; $C_o = 670 \text{ nF}$
Reactances Ex ia IIA	$L_o = 38 \text{ mH}$; $C_o = 2.2 \text{ }\mu\text{F}$
Reactances Ex ia I	$L_o = 36 \text{ mH}$; $C_o = 3.49 \text{ }\mu\text{F}$
Reactances (note)	Reactances without accounting for the concurrence of capacitance (C_o) and inductance (L_o)

Connection data

Connection technology: inputs/outputs	16 x CAGE CLAMP®
Connection type 1	Inputs/Outputs
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

Physical data

Width	24 mm / 0.945 inches
Height	100 mm / 3.937 inches

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Depth	67.8 mm / 2.669 inches
Depth from upper-edge of DIN-rail	60.6 mm / 2.386 inches

Mechanical Data

Mounting type	DIN-35 rail
---------------	-------------

Material Data

Color	blue
Housing material	Polycarbonate; polyamide 6.6
Fire load	2.034 MJ
Weight	92 g
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	0 ... 2000 m / 0 ... 6562 ft
Mounting position	horizontal (standing/lying); vertical
Relative humidity (without condensation)	95 %
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
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 (I/O System)
eCl@ss 10.0	27-24-26-01
eCl@ss 9.0	27-24-26-01
ETIM 8.0	EC001596

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ETIM 7.0	EC001596
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4017332317603
Customs tariff number	85389099990

Environmental Product Compliance

CAS-No.	11120-22-2 1303-86-2 1317-36-8 7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide Lead silicate
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Bulgaria)	b0643f05-8768-49bd-adcc-22cfdd43a1ed
SCIP notification number (Czech Republic)	c5777387-8a65-481c-bd87-ffe09d2c209f

Approvals / Certificates

General approvals


Logo	Approval	Additional Approval Text	Certificate name
	CCC CNEX	CNCA-C23-01	2020312310000211 (Ex ec[iaGa] IIC T4 Gc, [Ex iaDa] IIIC, [Ex iaMa] I)
	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- AIM750
	UL Underwriters Laboratories Inc. (ORDINARY)	UL 508	E175199 Sec.1

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LOCATIONS)

Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications


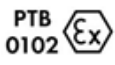





Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	22-2219060
	BV Bureau Veritas S.A.	-	30389/B1 BV
	DNV DNV GL SE	DNV-CG-0339, Aug. 2021	TAA0000194
	KR Korean Register of Shipping	-	KR HMB05880-AC001
	LR Lloyds Register EMEA	-	LR22180952TA
	PRS Polski Rejestr Statków	-	TE/2236/880590/19
	RINA RINA Germany GmbH	-	ELE343521XG001

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Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
	AEx UL International Germany GmbH	UL 60079	E480271
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV_12_ATEX_106032X (Ex ec[iaGa] IIC T4 Gc, [Ex iaDa] IIIC, [Ex iaMa] I)
	CCC CNEX	CNCA-C23-01	2020312310000211 (Ex ec[iaGa] IIC T4 Gc, [Ex iaDa] IIIC, [Ex iaMa] I)
	EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02.B. 00163/19 ([ExiaMa] I X, 2Ex e[iaGa] IIC T4Gc X, [ExiaDa] IIIC X)
	INMETRO TÜV Rheinland do Brasil Ltda.	-	TÜV_14.1911_X
	TUEV Nord TUEV Nord Cert GmbH	IEC 60079	IECEX TUN 12.0039X (Ex ec[iaGa] IIC T4 Gc, [Ex iaDa] IIIC, [Ex iaMa] I)
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

Optional accessories

Shield termination

Shield clamping saddles		
	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.: 790-108 Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm	www.wago.com/790-108

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	Item no.: 790-140 Shield clamping saddle; diameter of compatible conductor	www.wago.com/790-140
	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
	Item no.: 790-208 Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm	www.wago.com/790-208
Supply module		
Supply module		
	Item no.: 750-625/000-001 Power Supply; 24 VDC; Intrinsically safe	www.wago.com/750-625/000-001
	Item no.: 750-606 Power Supply; 24 VDC; Diagnostics; Intrinsically safe	www.wago.com/750-606
Marking accessories		
Marker carrier		
	Item no.: 750-103 Group marker carrier	www.wago.com/750-103
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	www.wago.com/2009-145/000-006
	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; yellow	www.wago.com/2009-145/000-002
	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	www.wago.com/2009-145/000-007
	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.: 2009-145/000-012 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

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	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.: 248-501/000-006 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.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow	www.wago.com/248-501/000-002
	Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange	www.wago.com/248-501/000-012
	Item no.: 248-501 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white	www.wago.com/248-501
	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.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red	www.wago.com/248-501/000-005
	Item no.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet	www.wago.com/248-501/000-024
	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.: 750-107 Group marker carrier	www.wago.com/750-107

Carrier rail

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Mounting accessories

	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	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; silver-colored	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; silver-colored	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; silver-colored	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; silver-colored	www.wago.com/210-508
	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	www.wago.com/210-113
	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	www.wago.com/210-118
	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	www.wago.com/210-112
	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	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; silver-colored	www.wago.com/210-115
	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

Downloads

Documentation

Data sheet

750-484, 2Al 4-20mA 12 Bit S.E. HART Ex i, data sheet

pdf Download
251.7 kB

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Manual

System Manual WAGO I/O System 750/753 Decentralized Automation Technology	V 3.3.0 2023 May 4	pdf 8.8 MB	Download
Product Manual 2-channel, 4-20mA, HART, Ex i, single ended	V 1.4.0	pdf 2.9 MB	Download

Bid Text

750-484 X81 - Datei	2019 Feb 19	xml 8.1 kB	Download
750-484 doc - Datei	2018 Sep 13	doc 33.8 kB	Download

Instruction Leaflet

CCC Ex (Additional information) WAGO-I/O-SYSTEM 750-*** Ex i	2023 Apr 26	pdf 147.4 kB	Download
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Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 Aug 18	pdf 2.2 MB	Download
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System Description

Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 789.0 kB	Download
Ex i Overview		pdf 452.7 kB	Download
750/753 Series I/O-System – General Product Information		pdf 1.7 MB	Download

Application Notes

Application Note CoDeSys 2.3

HART Tool Routing via PROFIBUS with 750-833 and 750-333 (a116140) This application note describes how to set up asset management systems, which facilitate simple, efficient configuration of HART field devices. Using the Cerabar PMC51 (Endress+Hauser) as an example, connecting any HART	1.0.0 2019 Mar 22	pdf 5.3 MB	Download
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sensor to a WAGO PROFIBUS controller and a WAGO PROFIBUS Coupler is explained. The cyclic PROFIBUS Master (750-8208) realizes the data exchange. As an acyclic master, a TH LINK PROFIBUS provides access for the plant asset management applications WAGOframe, PACTware and FieldCare.

HART Tool Routing via ETHERNET with 750-820x/750-88x and CODESYS 2.3 (a116120)	1.0.0 2019 Mar 22	pdf 3.9 MB	Download
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This application note describes how to set up asset management systems, which facilitate simple, efficient configuration of HART field devices. With the Cerabar PMC51 (Endress+Hauser) as an example, a connection is established from any HART sensor to a WAGO PROFIBUS Controller and a WAGO ETHERNET Fieldbus Coupler. The configuration is made with the asset management software WAGOframe, PACTware und FieldCare.

Application Note e!COCKPIT

HART Tool Routing via ETHERNET with 750-820x and e!RUNTIME (a116130)	1.0.0 2019 Mar 22	pdf 2.9 MB	Download
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This application note describes how to set up asset management systems, which facilitate simple, efficient configuration of HART field devices. With the Cerabar PMC51 (Endress+Hauser) as an example, a connection is established from any HART sensor to a WAGO PROFIBUS Controller and a WAGO ETHERNET fieldbus coupler. The configuration is made with the asset management software WAGOframe, PACTware und FieldCare.

Application note, other

HART Tool-routing with Emerson AMS (a116110)	1.0.0 2016 May 12	zip 1.6 MB	Download
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This App Note describes the HART® over PROFIBUS and the hardware configuration of a tool routing application based on the Asset Management Software AMS® from Emerson and network components from Softing. Details about the HART® over PROFIBUS communication component such as TH LINK PROFIBUS, hardware configuration tool, TACC gateway software and the Asset Management Software AMS® are available in the device setup manual from Softing AG and Emerson.

Libraries

Library

Connecting HART-Modules 750-482 and 750-484	3.1.0 2018 Jan 19	zip 331.0 kB	Download
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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".

Utilize HART-Modules 750-482 and 750-484	1.7	zip	Download
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The library "WagoLibHART_05.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". This library utilizes "WagoLibKBUS.lib" for MailBox-communication.

2018 Jan 19

21.9 MB

CAD/CAE-Data

CAE data

EPLAN Data Portal 750-484	URL	Download
WSCAD Universe 750-484	URL	Download
ZUKEN Portal 750-484	URL	Download

CAD data

2D/3D Models 750-484	URL	Download
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Device Files

Device Driver

ModbusTCP/ HART Gateway DTM / HART 750-48x, 753-48x	1.00.0000 2015 Aug 20	zip 21.5 MB	Download
759-360; Profibus/ HART Gateway DTM / HART 750-48x, 753-48x In Verbindung mit dem PROFIBUS DP/V1 Feldbuskoppler 750-333 bzw. Feldbuscontroller 750-833 und dem PROFIBUS/HART Gateway DTM 759-360 ist FDT Toolrouting zum DTM des angeschlossenen HART Gerätes möglich.	1.1.0.7 2015 Aug 20	zip 4.6 MB	Download
WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 2014 Sep 10	zip 4.8 MB	Download

Installation Notes

Subject to changes. Please also observe the further product documentation!



Product family

WAGO I/O System 750/753

[Show all products from the family](#)

Subject to changes. Please also observe the further product documentation!