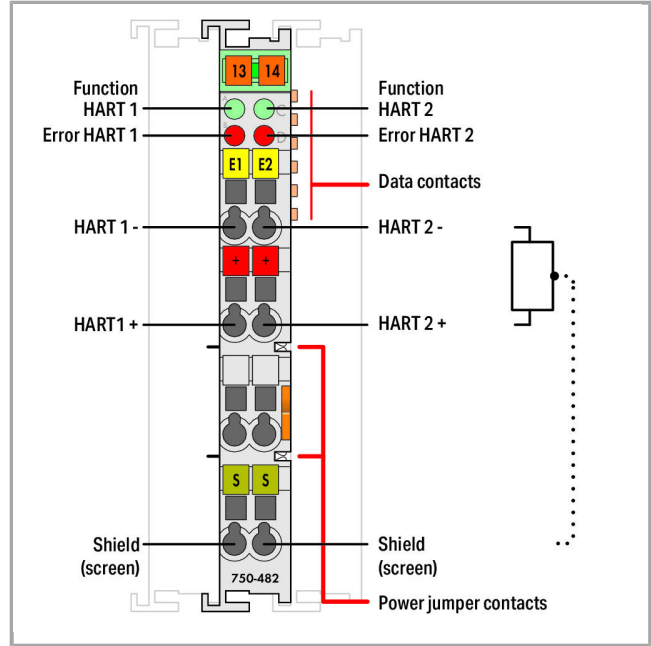
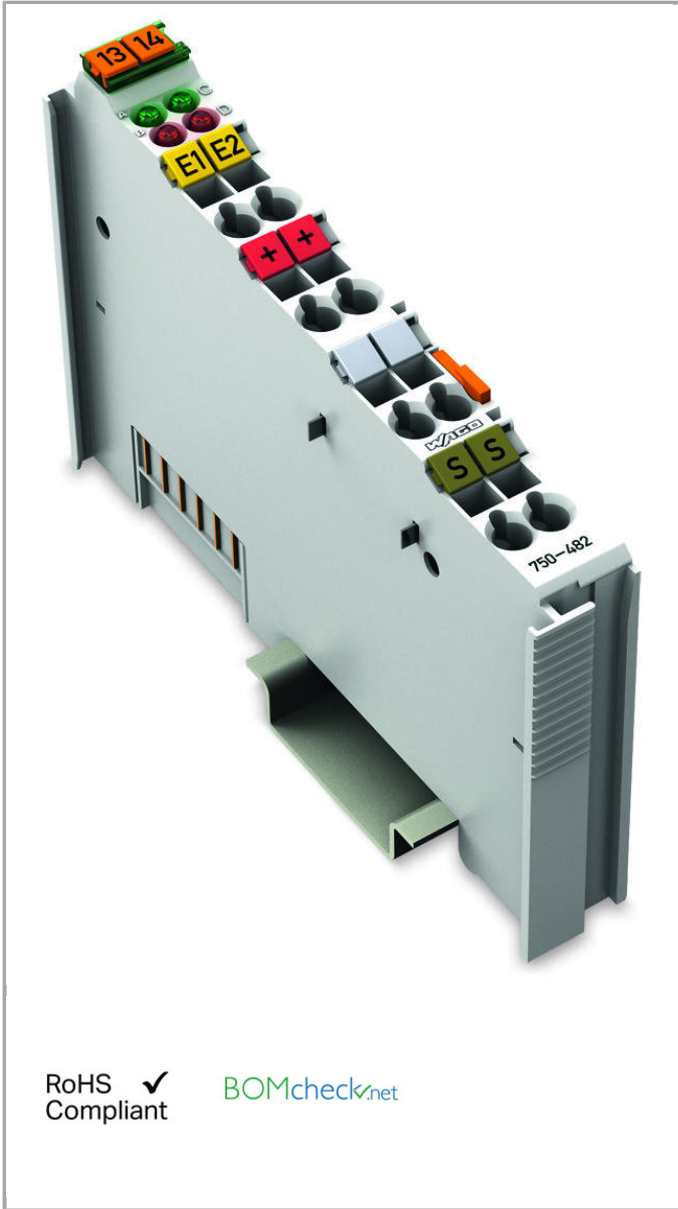


Data sheet | Item number: 750-482
2-channel analog input; 4 ... 20 mA HART

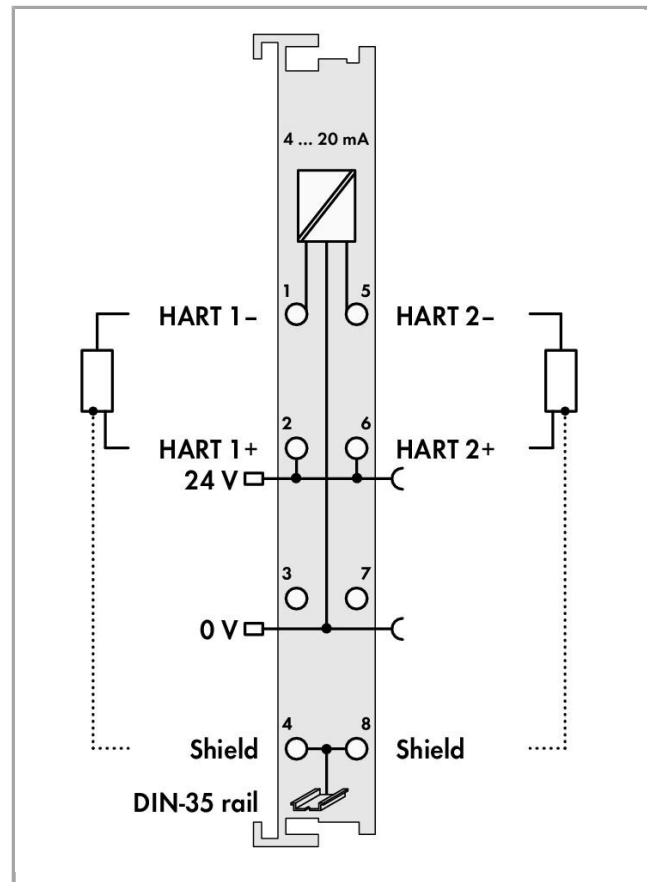
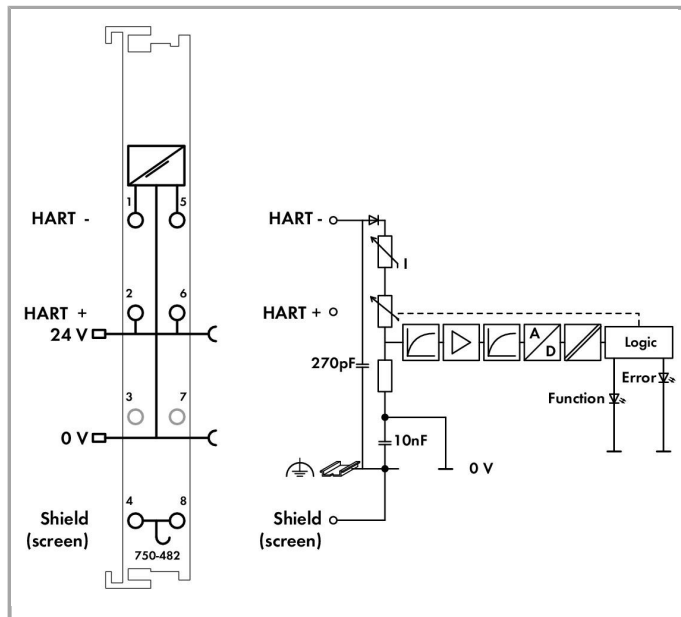


750-482



RoHS Compliant

[BOMcheck.net](https://www.bomcheck.net)



Item description

The analog input module powers the transducers, receives transmitted analog signals, and with electrical isolation, transmits the signals to the fieldbus.

The 24V supply for the field is derived from the module's power jumper contacts. The shield (screen) is directly connected to the DIN rail. At approx. 25mA, the overload protection switches the measurement input to a high-resistance state. Under normal operating conditions it will automatically switch back. This input module can supply the voltage for 2-wire transducers.

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 (configurable). 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 (configurable).

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

Data

Technical Data

Number of analog inputs	2
Total number of channels (module)	2
Type of signal	Current
Type of signal current	DC 4 ... 20 mA
Sensor connection	2 x (2-conductor)

Input filter	parametrizable
Input filter: parametrizable (channel by channel)	yes
Input voltage (max.)	24V
Input voltage drop	($I_{\text{meas}} < 28 \text{ mA}$): not linear, as protected against overload $U = 0.9 \text{ V} + 270 \Omega \times I_{\text{meas}}$
Signal characteristic	Single-ended
Diagnostics	Wire break, measurement range overflow
Resolution [bit]	12 Bit
Bit 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. \leq)	10 ms
Messfehler, Bezugstemperatur	25 °C
Messfehler, Abweichung max. vom Messbereichsendwert	0.1 %
Temperaturfehler max. vom Messbereichsendwert	0.01 %/K
Line break detection	$I_{\text{meas}} < 3.10 \text{ mA}$
Short circuit detection	$I_{\text{meas}} > 22 \text{ mA}$
System supply voltage	DC 5 V; via data contacts
Current consumption, system supply (5 V)	65 mA
System and sensor supply voltage)
Field supply voltage	DC 24 V (-25 ... +30 %); über Leistungskontakte (Einspeisung über Messerkontakt; Weiterleitung über Federkontakt)
HART devices per channel	1 device (single-drop, no multi-drop)
HART modems per channel	1 modem (no multiplex)
Isolation	500 V system/supply
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2

Connection data

Connection technology: In-/Outputs	8 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 inch

Geometrical Data

Width	12 mm / 0.472 inch
Height	69.8 mm / 2.748 inch
Height from upper-edge of DIN-35 rail	62.6 mm / 2.465 inch
Depth	100 mm / 3.937 inch



Mechanical data

Type of mounting	DIN-35 rail
------------------	-------------

Material Data

Color	light gray
Housing material	Polycarbonate, polyamide 6.6
Weight	52.103 g
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	0 ... 2000 m
Mounting position	horizontal (standing/lying) or vertical
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-3
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

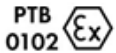
Commercial data

Product Group	15 (Remote I/O)
Country of origin	DE
GTIN	4017332319522
Customs Tariff No.	85389099990

Approvals / Certificates

Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TÜV 07 ATEX



TUEV Nord
TUEV Nord Cert GmbH

IEC 60079-0

IECEX
TUN
09.0001 X





UL
Underwriters Laboratories Inc. (HAZARDOUS
LOCATIONS)


ANSI/ISA 12.12.01

E198726
Sec.1

Country specific Approvals



Logo	Approval	Additional Approval Text	Certificate name
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP- REM-W43- AIM750
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP- REM-W43- AIM750


















UL-Approvals



















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

















Compatible products








shield connection

	Item no.: 790-108 Shield clamping saddle; 11 mm wide; diameter of compatible conductor	790-108
	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
Supply module		
	Item no.: 750-601 Power Supply; 24 VDC	750-601
	Item no.: 750-602 Power Supply; 24 VDC	750-602
	Item no.: 750-610 Power Supply; 24 VDC; fuse holder; Diagnostics	750-610
	Item no.: 750-612 Power Supply; 0 ... 230 V AC/DC	750-612
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
	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
	Item no.: 850-815/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate	850-815
	Item no.: 850-816/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate	850-816
	Item no.: 850-817/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate	850-817
	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	/002-000	850-826
	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	/002-000	850-827
	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	/002-000	850-828
	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
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 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715		210-508
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		248-501
	Item no.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type		248-501
	Item no.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type		248-501
	Item no.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type		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

Downloads

Documentation

Manual			
2-Channel Analog Input, 4-20mA, HART, single ended	V 1.1.0	pdf 1.6 MB	Download
Bid Text			
750-482	Oct 2, 2014	doc 32.8 kB	Download
Additional Information			
Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download
System Description			
Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 780.2 kB	Download
750/753 Series I/O-System – General Product Information		pdf 1.7 MB	Download
Design Notes	V 2.0.0	pdf 1.5 MB	Download
Basic conditions and recommendations for higher operational safety			

Use in Hazardous Environments Term definition, marking and installation regulations	V 1.0.0	pdf 1.0 MB	Download
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Application Notes

Application Note CoDeSys 2.3

HART-Tool-Routing über ETHERNET mit 750-820x/750-88x und CoDeSys 2.3 (a116120) Der Anwendungshinweis beschreibt die Einrichtung von Asset-Management-Systemen, welche das einfache, effiziente und schnelle Konfigurieren von HART-Feldgeräten ermöglichen. Am Beispiel des Cerabar PMC51 (Endress+Hauser) erfolgt die Anbindung an die WAGO-ETHERNET-Controller 750-820x/750-88x (CoDeSys 2.3). Hierbei wird das HART-Modul 750-482 und 750-484 genutzt. Zusätzlich wird die Konfiguration der Asset-Management-Software WAGOframe, PACTware und FieldCare beschrieben.	1.0.0 Mar 22, 2019	pdf 3.9 MB	Download
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HART-Tool-Routing über PROFIBUS mit 750-833 und 750-333 (a116140) Der Anwendungshinweis beschreibt die Einrichtung von Asset-Management-Systemen, welche das einfache, effiziente und schnelle Konfigurieren von HART-Feldgeräten ermöglichen. Am Beispiel des Cerabar PMC51 (Endress+Hauser) erfolgt die Anbindung des HART-Sensors an den WAGO-PROFIBUS-Controller (750-833) bzw. WAGO-PROFIBUS-Koppler (750-333). Der zyklische PROFIBUS-Master (750-8208) koordiniert den Profibus-Feldbus. Über den TH LINK PROFIBUS (azyklischer Profibus Master) können die Asset-Management-Anwendungen (WAGOframe, PACTware und FieldCare) azyklisch über das HART-Modul (750-482 bzw. 750-484) auf die HART-Feldgeräte zugreifen.	1.0.0 Mar 22, 2019	pdf 5.3 MB	Download
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Application Note e!COCKPIT

HART Toolrouting über Ethernet mit 750-820x und eRUNTIME (a116130) Der Anwendungshinweis beschreibt die Einrichtung von Asset-Management-Systemen, welche das einfache, effiziente und schnelle Konfigurieren von HART-Feldgeräten ermöglichen. Am Beispiel des Cerabar PMC51 (Endress+Hauser) erfolgt die Anbindung an die WAGO-ETHERNET-Controller 750-820x (e!RUNTIME). Hierbei wird das HART-Modul 750-482 und 750-484 genutzt. Zusätzlich wird die Konfiguration der Asset-Management-Software WAGOframe, PACTware und FieldCare beschrieben.	1.0.0 Mar 22, 2019	pdf 2.9 MB	Download
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Libraries

Library

Utilize HART-Modules 750-482 and 750-484 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	V1.7	zip 21.9 MB	Download
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WAGO-ModbusTCP-HART-DTM, who enable configuration of HART devices with every FDT-Frameapplication like WAGOframe. This library utilizes WagoLibKBUS.lib for MailBox-communication.

Connecting HART-Modules 750-482 and 750-484	V3.1.0	zip 331.0 kB	Download
<p>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.</p>			

CAD/CAE - Smart Data

CAD data

3D Download 750-482	URL	Download
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Device Files

Device Driver

759-360; Profibus/HART GatewayDTM for 75x-482/-484 2AI 4..20mA HART module When using the 750-333 PROFIBUS DP/V1 Coupler or 750-833 PROFIBUS Controller and the 759-360 PROFIBUS/HART Gateway DTM, FDT tool routing is possible to the DTM of the connected HART device.	1.1.0.7 Aug 20, 2015	zip 4.6 MB	Download
WAGO USB Service Cable Driver / 750 and 857 Series 759-923	6.5.3.0 Sep 10, 2014	zip 4.8 MB	Download
ModbusTCP/HARTGatewayDTM for 75x-482/-484 2AI 4..20mA HART module	1.00.0000 Aug 20, 2015	zip 21.5 MB	Download
Device Description File			
EDD file for SIMATIC PDM for 750-333, 750-833, 750-482, 750-484	1.0 Nov 22, 2010	zip 185.2 kB	Download



Product family

750/753 Series I/O-System

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

[Show all products from the family](#)

Subject to changes.
