

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

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
Sensor connection	2 x (2-wire)
Input filter	parameterizable
Input filter: parametrizable (channel by channel)	Yes
Signal characteristics	Single-ended
Overvoltage protection	30 V, reverse polarity protected
Resolution [bit]	12 bits
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
Diagnostics	Wire break; short circuit; measurement range overflow; measurement range underflow according to NAMUR recommendation 43
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
HART devices per channel	1 device (single-drop, no multi-drop)
HART modems per channel	1 modem (no multiplex)
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: $U_o = \max. 27.3 \text{ V}$); via power jumper contacts (power supply via blade contact; transmission via spring contact)
Current consumption, field supply (module with no external load)	26 mA
Power consumption P_{max}	1.60 W (with slaves (20 mA))
Power loss P_I	0.62 W (without slaves)
Isolation	300 VAC system/supply
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity (power jumper contacts)	1 A
Indicators	LED (A, E) green: Function HART 1, HART 2; LED (B, F) red: Error HART 1, HART 2
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
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
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Material data

Housing material	Polycarbonate; polyamide 6.6
Fire load	2.034 MJ
Weight	91.9 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

Commercial data

eCl@ss 10.0	27-24-26-01
eCl@ss 9.0	27-24-26-01
ETIM 8.0	EC001596
ETIM 7.0	EC001596
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
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 (Austria)	65198b56-6c5e-4e9b-bae6-440e83b5540e
SCIP notification number (Belgium)	320bcefd-799d-47d8-ad6b-665cabcf71
SCIP notification number (Bulgaria)	c4510879-0c0d-4cc6-980d-545056447d70
SCIP notification number (Czech Republic)	c8f2ab1b-3b5f-4d3e-8a63-49661a2d1805
SCIP notification number (Denmark)	05cde903-f87f-4236-af30-3c8a8475d295
SCIP notification number (Finland)	9b0dfe1d-a9ee-49ba-84f0-11c98d2af7ca
SCIP notification number (France)	e6b04120-5655-4926-a5ff-7d114ce21156
SCIP notification number (Germany)	28e72eb1-798d-431d-a620-1656e409d94c
SCIP notification number (Hungary)	e0d07965-ce0f-4fa2-a83d-64aa578b7171
SCIP notification number (Italy)	e6a34f4a-4309-4fa1-a649-fe99ddc16c49
SCIP notification number (Netherlands)	72ee0f22-7a32-420a-9dc2-4275116d0b04
SCIP notification number (Poland)	18b50066-c7d6-4a19-8606-4369eeaa6a21
SCIP notification number (Romania)	6309a4bd-29d7-4dd0-b372-e67d35035c4f
SCIP notification number (Sweden)	b123c829-0270-49e6-bb03-d8d3e1656818

Approvals / Certificates

General approvals **Declarations of conformity and manufacturer's declarations**



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

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for hazardous areas **Approvals for hazardous areas**



Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079	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] X,2Ex e[iaGa]IIC T4Gc X,[ExiaDa]IIIC X)
INMETRO TUV Rheinland do Brasil Ltda.	-	TUV_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

Downloads

Environmental Product Compliance


Compliance Search

Environmental Product
Compliance
750-484/000-001






Documentation

Manual

Product Manual 2-channel, 4-20mA, HART, Ex i, single ended	V 1.4.0	pdf 2805.96 KB	
System Manual WAGO I/O System 750/753	V 3.3.3 29.08.2023	pdf 8512.61 KB	


System Description

750/753 Series I/O-System – General Product Information	pdf 953.35 KB	
Overview on WAGO-I/O-SYSTEM 750 approvals	pdf 770.48 KB	
Ex i Overview	pdf 442.07 KB	

Bid Text



750-484/000-001	19.02.2019	xml 8.15 KB	
750-484/000-001	13.09.2018	doc 34.50 KB	

Instruction Leaflet


CCC Ex (Additional information)	26.04.2023	pdf 143.96 KB	
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Application Notes

Application Note CoDeSys 2.3


HART Tool Routing via ETHERNET with 750-820x/750-88x and CODESYS 2.3 (a116120)	1.0.0 22.03.2019	pdf 3798.36 KB	
HART Tool Routing via PROFIBUS with 750-833 and 750-333 (a116140)	1.0.0 22.03.2019	pdf 5214.96 KB	

Application Note e!COCKPIT


HART Tool Routing via ETHERNET with 750-820x and e!RUNTIME (a116130)	1.0.0 22.03.2019	pdf 2867.01 KB	
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CAD/CAE-Data

CAD data

2D/3D Models 750-484/000-001	
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CAE data

EPLAN Data Portal 750-484/000-001	
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