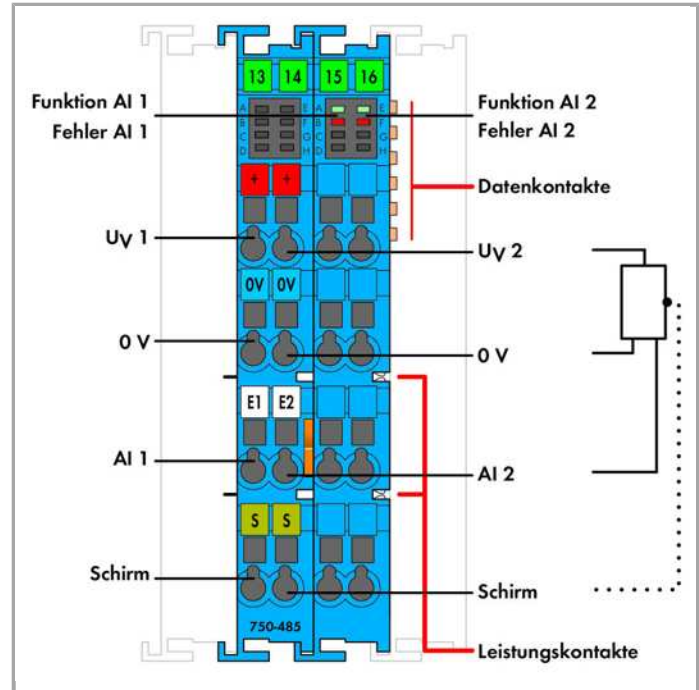


Data sheet | Item number: 750-485

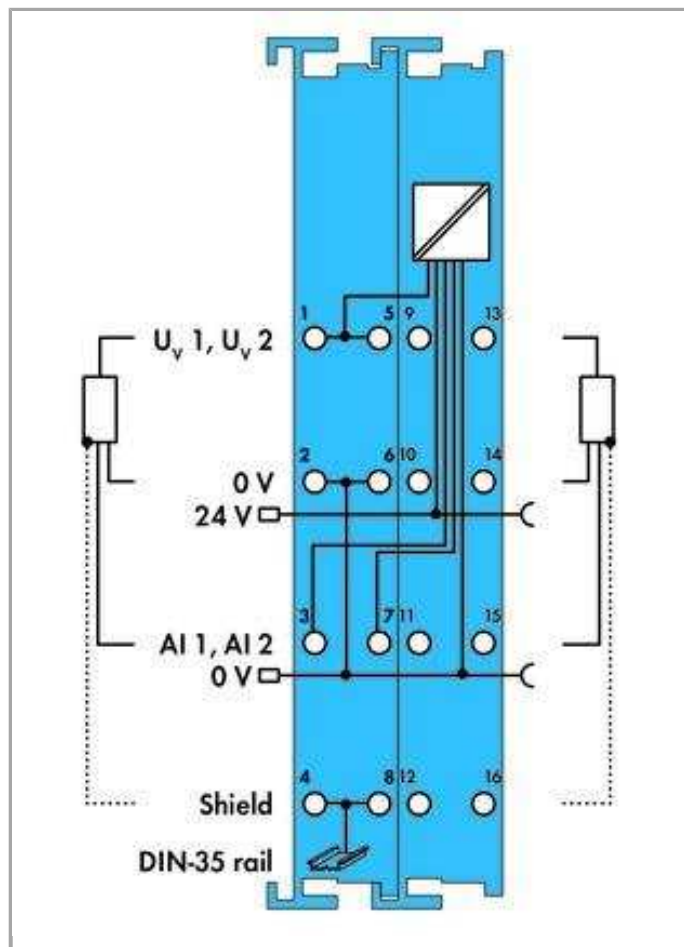
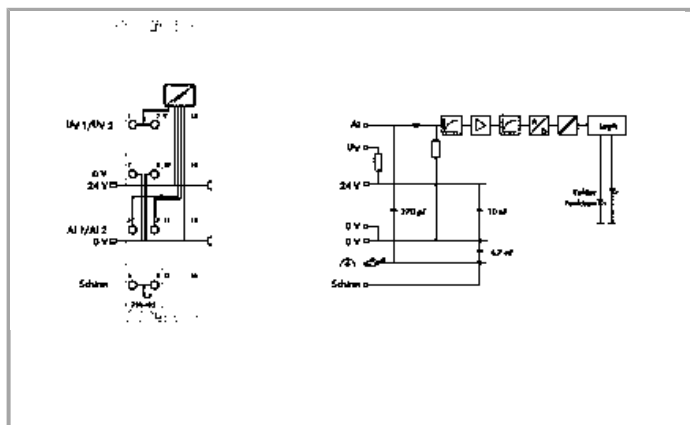
2-channel analog input; 2- to 4-conductor connection; Single-ended;
Intrinsically safe

www.wago.com/750-485



RoHS 
Compliant

BOMcheck.net



Item description

The analog input module provides power to the intrinsically safe signal conditioners located in the hazardous areas of Zone 0+1 and processes their analog signals.

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

The 24 V supply is derived from the module's power jumper contacts.

The transmitter supply is non-inherently electronically short-circuit-protected.

The shield (screen) is directly connected to the DIN-rail.

LEDs:

- Green LED (signal current on/off)
- Red LED (wire breakage, measurement range overflow/underflow)

Field and system levels are electrically isolated.

Note:

The analog input module must only be operated via Ex i 24VDC power supply!

General information (e.g., installation regulations) on explosion protection is available in the WAGO-I/O-SYSTEM 750 manuals!



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 supply voltage	16 V DC; Transmitter supply U_V at 20 mA
Sensor connection	2 x (3-conductor)
Signal characteristic	Single-ended
Resolution [bit]	12 Bit
Input resistance max.	100 Ω
Power consumption P_{max}	1.3 W
Bit width	2 x 16-bit data; 2 x 8-bit control/status (optional)
Conversion time (typ.)	2 ms
Measurement error, reference temperature	25 °C
Measurement error, deviation max. from the upper-range value	0.2 %
Temperature error max. from the upper-range value	0.01 %/K
Intrinsic safety Ex i	yes
Field supply voltage	DC 24 V; über Leistungskontakte (Versorgung über Einspeisung Ex i U_O = max. 27,3 V); zur Weiterleitung getunnelt
Current consumption, field supply (module with no external load)	11 mA
System supply voltage	DC 5 V; via data contacts
Current consumption, system supply (5 V)	31 mA
Power loss P_V	0.75 W
Isolation	300 VAC system/supply
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Ex guideline	EN/IEC 60079-0, -7, -11, -26, -31
Reactances Ex ia IIC	L_O = 5 mH; C_O = 88 nF
Reactances Ex ia IIB	L_O = 18 mH; C_O = 680 nF
Ex ia IIA reactances	L_O = 40 mH; C_O = 2.2 μ F
Reactances Ex ia I	L_O = 100 mH; C_O = 3.5 μ F
Electric circuit, safety-relevant data	U_O = 27.3 V; I_O = 90 mA; P_O = 0.61 W; Characteristic: Linear
Marking	ATEX, IECEx, INMETRO, Underwriters Laboratories Inc.
Reactances	(The above-listed ratings do not account for the coincidental occurrence of capacitances and inductances. For ratings taking the coincidental occurrence of capacitances and inductances into account, see manual)



Connection data

Connection technology: inputs/outputs	16 x CAGE CLAMP®
Connection type (1)	Inputs/Outputs
Solid conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 Inch

Geometrical Data

Width	24 mm / 0.945 inch
Height	67.8 mm / 2.669 inch
Height from upper-edge of DIN-35 rail	60.6 mm / 2.386 inch
Depth	100 mm / 3.937 inch

Mechanical data

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

Material Data

Color	blue
Housing material	Polycarbonate, polyamide 6.6
Weight	97.647 g
Conformity marking	CE

Environmental Requirements

Surrounding air (operating) temperature	0 ... 55 °C
Surrounding air (storage) temperature	-40 ... 85 °C
Degree of protection	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	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 61000-6-3, 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

75 %

Commercial data

Country of origin	DE
GTIN	4045454725556
Customs Tariff No.	85389099990
Product Group	15 (Remote I/O)

Approvals / Certificates

Ex-Approvals

Logo	Approval	Certificate name
	ATEX TUEV Nord Cert GmbH	TÜV 07 ATEX 554086 X en.
	TUEV Nord TUEV Nord Cert GmbH	IECEx TUN 12.0039X
	TUEV Nord TUEV Nord Cert GmbH	IECEx TUN 09.0001 X
	TUEV Nord TUEV Nord Cert GmbH	TÜV_14.1911_X
	TUEV Nord TUEV Nord Cert GmbH	TUEV_12_ATEX_106032X
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	E198726 Sec.1 (HAZARDOUS LOCATIONS)

Country specific Approvals

Logo	Approval	Certificate name
	KC National Radio Research Agency	MSIP-REM-W43-AIM750

Ship Approvals

Logo	Approval	Certificate name
	ABS American Bureau of Shipping	16-HG1554285-PDA

ABS

	BV Bureau Veritas S.A.	13453/DO BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	TAA0000194
	DNV GL Det Norske Veritas, Germanischer Lloyd	TAA0000194
	DNV DNV Germany GmbH	A-14093
	GL Germanischer Lloyd	26 898 - 05 HH
	LR Lloyds Register	02/20026 (E5)
	NK Nippon Kaiji Kyokai	TA17255M
	PRS Polski Rejestr Statków	TE/2210/880590/18
	PRS Polski Rejestr Statkow	TE/1989/880590/13
	RINA RINA Germany GmbH	ELE134212XG

UL-Approvals

Logo	Approval	Certificate name
	UL	E175199 Sec.1 (ORDINARY LOCATIONS)



UL International Netherlands B.V. (ORDINARY LOCATIONS)

Compatible products

Supply module



Item no.: 750-606
Power Supply; 24 VDC; Diagnostics; Intrinsically safe

www.wago.com/750-606

Item no.: 750-625/000-001
Power Supply; 24 VDC; Intrinsically safe

www.wago.com/750-625/000-001

Marking accessories



Item no.: 2009-145
Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/2009-145

Item no.: 2009-145/000-002
Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/2009-145/000-002

Item no.: 2009-145/000-005
Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/2009-145/000-005

Item no.: 2009-145/000-006
Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/2009-145/000-006

Item no.: 2009-145/000-007
Mini-WSB Inline; plain; 1,700 Mini-WSB markers (5 mm) on roll; stretchable 5 - 5.2 mm

www.wago.com/2009-145/000-007

Item no.: 2009-145/000-012
Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/2009-145/000-012

Item no.: 2009-145/000-023
Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/2009-145/000-023

Item no.: 2009-145/000-024
Mini-WSB Inline; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/2009-145/000-024

Item no.: 248-501
Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card

www.wago.com/248-501

Item no.: 248-501/000-002
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/248-501/000-002



Item no.: 248-501/000-005
Mini-WSB marking card; as card; plain; snap-on type

www.wago.com/248-501/000-005



Item no.: 248-501/000-006
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

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

www.wago.com/248-501/000-007



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

www.wago.com/248-501/000-012



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

www.wago.com/248-501/000-017



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

www.wago.com/248-501/000-023



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

www.wago.com/248-501/000-024



Item no.: 750-103
Group marker carrier

www.wago.com/750-103



Item no.: 750-107
Group marker carrier

www.wago.com/750-107

shield connection



Item no.: 790-108
Shield clamping saddle; 11 mm wide; diameter of compatible conductor

www.wago.com/790-108



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 mm to 24 mm

www.wago.com/790-124



Item no.: 790-140
Shield clamping saddle; 43 mm wide; diameter of compatible conductor; 22 mm to 40 mm

www.wago.com/790-140



Item no.: 790-208
Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm

www.wago.com/790-208



Item no.: 790-216
Shield clamping saddle; 6–16 mm diameter; 21.8 mm wide

www.wago.com/790-216



Item no.: 790-220
Shield clamping saddle; 30 mm wide; 6 ... 20 mm

www.wago.com/790-220

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	www.wago.com/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	www.wago.com/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	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	www.wago.com/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	www.wago.com/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	www.wago.com/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	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	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	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	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	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	www.wago.com/210-508

Downloads

Documentation

Data sheet

750-485, 2AI 4-20mA Ex i, data sheet	Jul 27, 2017	PDF 247.2 kB	Download
--------------------------------------	--------------	-----------------	----------

Manual

2-channel, 4-20mA, Ex i, single-ended	Aug 3, 2017	2.1 MB	Download
---------------------------------------	-------------	--------	----------

Bid Text

750-485 IO-Klemmen	Jan 21, 2016	DOC 31.2 kB	Download
-----------------------	--------------	----------------	----------

Additional Information



Disposal; Electrical and electronic equipment, Packaging	Oct 15, 2018	265.8 kB	Download
--	--------------	----------	----------

System Description

750/753 Series I/O-System – General Product Information	May 29, 2018	2.0 MB	Download
Design Notes	May 3, 2011	1.5 MB	Download
Basic conditions and recommendations for higher operational safety			
Ex i Overview	Jun 6, 2017	453.4 kB	Download
Overview on WAGO-I/O-SYSTEM 750 approvals	Jun 6, 2017	314.9 kB	Download
Use in Hazardous Environments	May 8, 2014	1.0 MB	Download
Term definition, marking and installation regulations			

smartDATA

CAD data

3D Download 750-485	URL	Download
---------------------	-----	----------

Device Files

Device Driver

WAGO USB Service Cable Driver / 750 and 857 Series	6.5.3.0	ZIP	Download
	Sep 10, 2014	4.8 MB	

Product family

750/753 Series I/O-System

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

[Show all products from the family](#)

Subject to changes.