

Data sheet | Item number: 750-486

4-channel analog input; 0/4 ... 20 mA; Single-ended; NAMUR NE 43;

Intrinsically safe

www.wago.com/750-486



Color:

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

WAGO GmbH & Co. KG

Hansastraße 27

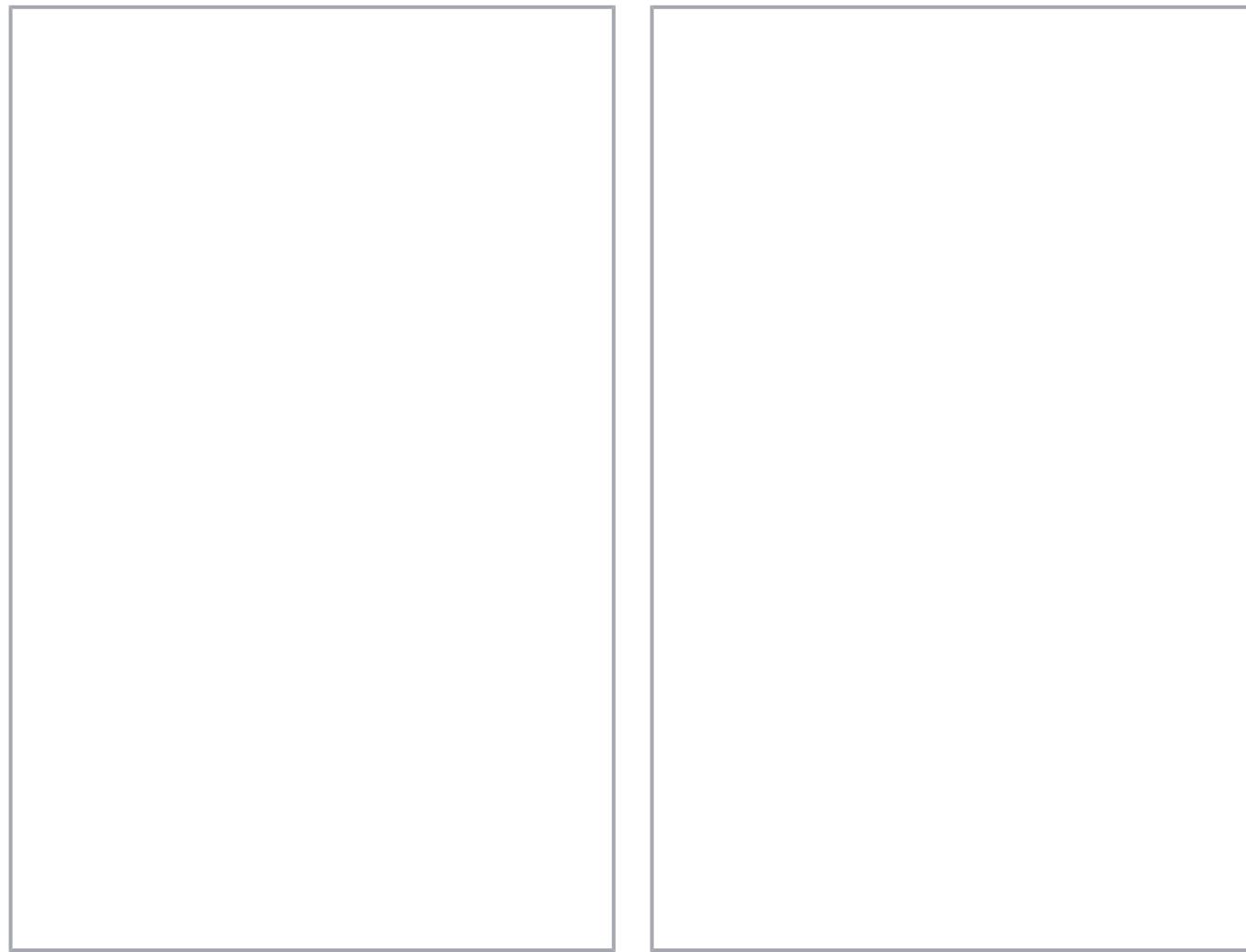
32423 Minden

Phone: +49 571 887-0 | Fax: +49 571 887-169

Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.



Item description

This analog input module powers 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 directly connects to the DIN-rail.

Indicators:

- Green LED (availability ON/OFF)

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

- Red LED (measurement range overflow/underflow, wire breakage, short circuit)

Field and system levels are electrically isolated.

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	4
Total number of channels (module)	4
Signal type	Current
Signal type (current)	0 ... 20 mA; 4 ... 20 mA
Sensor connection	2 x (3-wire)
Signal characteristics	Single-ended
Resolution [bit]	12 bits
Conversion time (typ.)	10 ms
Measurement error (reference temperature)	25 °C
Measurement error, deviation (max.) from the upper-range value	0.1 %
Temperature error (max.) of the upper-range value	0.01 %/K
Input resistance (max.)	200 Ω
Intrinsic safety Ex i	Yes
Data width	4 x 16-bit data; 4 x 8-bit control/status (optional)
Configuration options	WAGO-I/O-CHECK e!COCKPIT
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	45 mA
Supply voltage (field)	24 VDC; (Ex i power supply: $U_O = \text{max. } 27.3 \text{ V}$); via power jumper contacts (power supply via blade contact; transmission via spring contact)
Current consumption, field supply (module with no external load)	19 mA
Power consumption $P_{\text{max.}}$	2.7 W
Power loss P_I	1.5 W

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

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, C, G) green: Function AI 1 ... AI 4; LED (B, F, D, H) red: Error AI 1 ... AI 4
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)	$U_o = 27.3 \text{ V}$; $I_o = 98.4 \text{ mA}$; $P_o = 0.672 \text{ W}$; linear characteristic curve
Reactances Ex ia IIC	$L_o = 970 \mu\text{H}$; $C_o = 88 \text{ nF}$
Reactances Ex ia IIB	$L_o = 13 \text{ mH}$; $C_o = 683 \text{ nF}$
Reactances Ex ia IIA	$L_o = 22 \text{ mH}$; $C_o = 2.28 \mu\text{F}$
Reactances Ex ia I	$L_o = 31 \text{ mH}$; $C_o = 3.6 \mu\text{F}$
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 mm² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 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
---------------	-------------

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

Material data

Color	blue
Housing material	Polycarbonate; polyamide 6.6
Fire load	2.033 MJ
Weight	116 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	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

eCl@ss 10.0	27-24-26-01
eCl@ss 9.0	27-24-26-01
ETIM 8.0	EC001596
ETIM 7.0	EC001596
Recupel Type	
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
Customs tariff number	85389099990

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

Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 7439-92-1
REACH Candidate List Substance	Diboron trioxide Lead Lead monoxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	549055d6-6f9f-4c9d-b855-7486a1d6cb3a
SCIP notification number (Belgium)	7c5e0ec5-4b5c-495e-85ab-8c4b17d0b137
SCIP notification number (Bulgaria)	485c2c34-1cda-4cc4-a49f-bdbe01d8d580
SCIP notification number (Czech Republic)	474cd881-197a-4e7f-9d9d-56ae52483311
SCIP notification number (Denmark)	7f8cc8a2-4c17-4246-901a-f36a098de931
SCIP notification number (Finland)	7602d62b-94b5-44a6-8da6-ccfea8ef5ecf
SCIP notification number (France)	60a2160b-b980-4efb-ba16-b12cd1cabbd
SCIP notification number (Germany)	9e11c3b8-9702-4919-a91b-bda35f90810c
SCIP notification number (Hungary)	8119bf7f-3b21-48b7-ab84-a594bf80a530
SCIP notification number (Italy)	40b21ee0-9bc8-486f-9958-c6e22e9afb1b
SCIP notification number (Netherlands)	97e4e9f6-cc3f-4289-9a68-d071c0e6fa99
SCIP notification number (Poland)	f0ea8734-9828-4e42-86bd-3c858df8aa95
SCIP notification number (Romania)	8d08dea9-f978-4ce4-9dc1-dcf3e759b55f
SCIP notification number (Sweden)	c378fdab-274a-422c-a91c-1e8be031c67d

Commercial data

eCl@ss 9.0
ETIM 8.0
ETIM 7.0
Customs tariff number

Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C- DE.AM02.

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

B.00087
/19

KC National Radio Research Agency	Article 58-2, Clause 3	MSIP- REM-W43- AIM750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 61010-2-201	E175199
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	-	E175199

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
	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

Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
	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] II X,2Ex e[iaGa]IIC T4Gc X,[ExiaDa] IIIC X)
	INMETRO	-	TÜV_14.1911_X

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

TÜV Rheinland do Brasil Ltda.

KTL Korea Testing Laboratory	KOSHA Article 34, IEC60079-0	20-KA4BO-0606X
TUEV Nord TUEV Nord Cert GmbH	IEC 60079, IEC 60079-0	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
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

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

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

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 www.wago.com/2009-145/000-007
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item no.: 2009-145/000-005 www.wago.com/2009-145/000-005
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red

Item no.: 2009-145/000-012 www.wago.com/2009-145/000-012
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item no.: 2009-145/000-023 www.wago.com/2009-145/000-023
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item no.: 2009-145/000-024 www.wago.com/2009-145/000-024
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

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

Item no.: 248-501/000-007 www.wago.com/248-501/000-007
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray

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

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

Item no.: 248-501 www.wago.com/248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

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

Item no.: 248-501/000-005 www.wago.com/248-501/000-005
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red

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

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

Item no.: 248-501/000-023

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

[www.wago.com/248-501](http://www.wago.com/248-501/000-023)

/000-023

Group marker carrier**Item no.: 750-107**

Group marker carrier

www.wago.com/750-107**Supply module****Supply module****Item no.: 750-625/000-001**

Power Supply; 24 VDC; Intrinsically safe

[www.wago.com/750-625](http://www.wago.com/750-625/000-001)

/000-001

Item no.: 750-606

Power Supply; 24 VDC; Diagnostics; Intrinsically safe

www.wago.com/750-606**Carrier rail****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**

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

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; silver-colored

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

750-486, 0/4–20 mA NE43 Ex i, Datasheet

pdf
217.1 kB

[Download](#)

Manual

System Manual WAGO I/O System 750/753

V 3.3.3

pdf
8.7 MB

Decentralized Automation Technology

2023 年8月29日

[Download](#)

Product Manual 4AI 0/4–20 mA, Ex i

V 1.1.2

pdf
5.6 MB

2020 年1月21日

[Download](#)

Bid Text

750-486

2019 年2月19 日

xml
6.6 kB

X81 - Datei

750-486

2017 年10月6日

doc
32.8 kB

doc - Datei

Instruction Leaflet

CCC Ex (Additional information)

2023 年4月26 日

pdf
147.4 kB

WAGO-I/O-SYSTEM 750-*** Ex i

System Description

750/753 Series I/O-System – General Product Information

pdf
976.2 kB

[Download](#)

Ex i Overview

pdf
233.9 kB

[Download](#)

Overview on WAGO-I/O-SYSTEM 750 approvals

pdf
223.5 kB

[Download](#)

Additional Information

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

WAGO GmbH & Co. KG

Hansastraße 27

32423 Minden

Phone: +49 571 887-0 | Fax: +49 571 887-169

Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.

Disposal and Recycling

V 1.1.0

pdf

Download

Electrical and electronic equipment, Batteries, Packaging

2022 年8月18日

2.2 MB

CAD/CAE-Data

CAD data

2D/3D Models 750-486

URL

Download

CAE data

EPLAN Data Portal 750-486

URL

Download

WSCAD Universe 750-486

URL

Download

ZUKEN Portal 750-486

URL

Download

Installation Notes

Product family

[WAGO I/O System 750/753](#)

[Show all products from the family](#)

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

WAGO GmbH & Co. KG

Hansastra. 27

32423 Minden

Phone: +49571 887-0 | Fax: +49571 887-169

Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.