

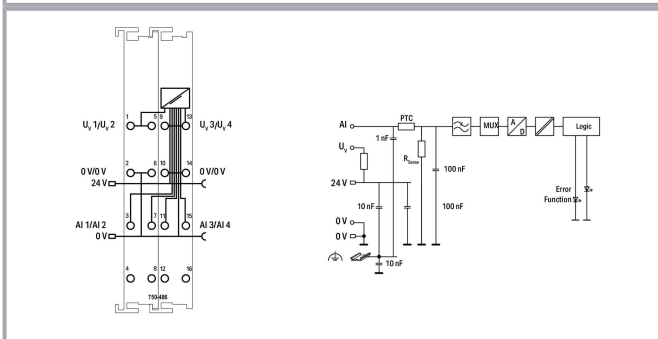
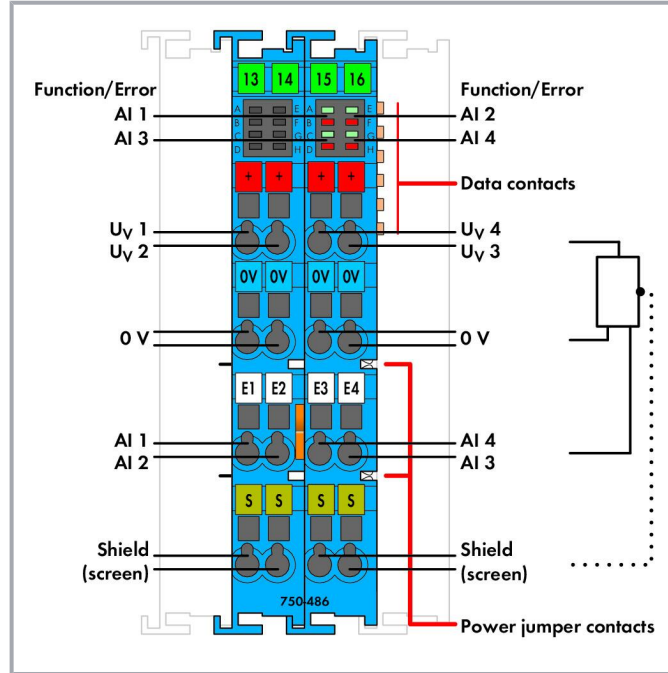
Data sheet | Item number: 750-486

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

[www.wago.com/750-486](http://www.wago.com/750-486)



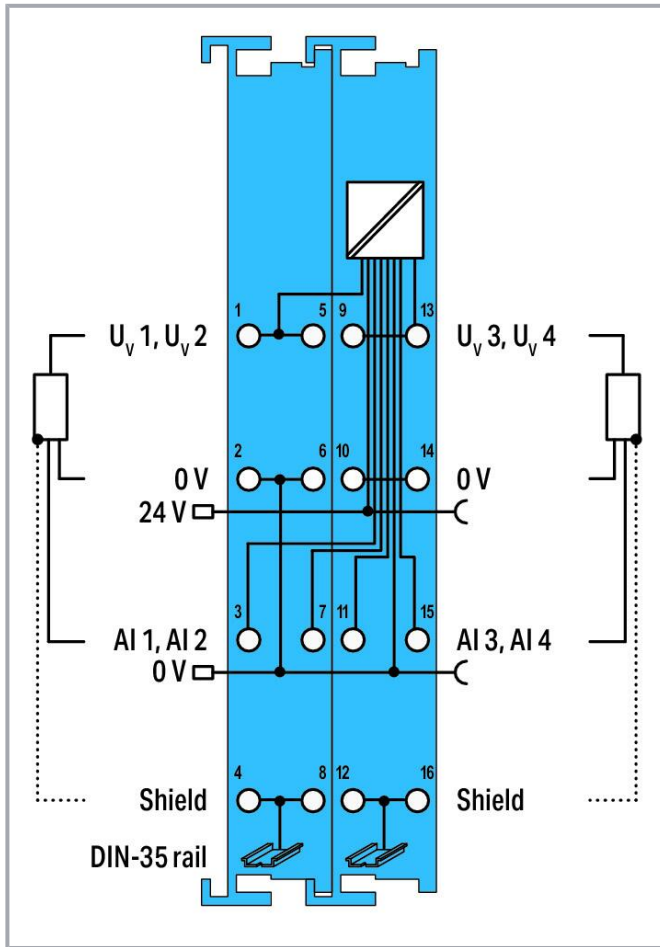
Color:



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

WAGO GmbH & Co. KG  
Hansastr. 27  
32423 Minden  
Phone: +49571 887-0 | Fax: +49571 887-169  
Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

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

Field and system levels are electrically isolated.

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

**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 mADC; 4 ... 20 mADC
Supply voltage (sensor)	15 VDC; Transmitter supply $U_V$ at 20 mA
Sensor connection	2 x (3-wire)
Signal characteristics	Single-ended
Resolution [bit]	12 bits
Input resistance (max.)	200 $\Omega$
Power consumption $P_{max}$	2.7 W
Data width	4 x 16-bit data; 4 x 8-bit control/status (optional)
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
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)	45 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)	19 mA
Power loss $P_l$	1.5 W
Isolation	300 VAC system/field

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



Indicators	LED (A, E, C, G) green: Function AI 1 ... AI 4; LED (B, F, D, H) red: Error AI 1 ... AI 4
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)	$U_o = 27.3 \text{ V}$ ; $I_o = 98.4 \text{ mA}$ ; $P_o = 0.672 \text{ W}$ ; Linear characteristic curve
Reactances Ex ia IIC	$L_o = 970 \text{ }\mu\text{H}$ ; $C_o = 88 \text{ nF}$
Reactances Ex ia IIB	$L_o = 13 \text{ mH}$ ; $C_o = 683 \text{ nF}$
Reactances Ex ia IIA	$L_o = 22 \text{ mH}$ ; $C_o = 2.28 \text{ }\mu\text{F}$
Reactances Ex ia I	$L_o = 31 \text{ mH}$ ; $C_o = 3.6 \text{ }\mu\text{F}$
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 <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 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 <sub>2</sub> S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO <sub>2</sub> 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
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4055143516044
Customs tariff number	8538909990

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 32423 Minden  
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## 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-b12cd1cabb0d
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

## 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

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



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

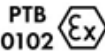






Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	22-2219060
	DNV DNV GL SE	DNV-CG-0339, Aug. 2021	TAA0000194
	KR Korean Register of Shipping	-	KR HMB05880- AC001
	LR Lloyds Register EMEA	-	LR22180952TA
	PRS Polski Rejestr Statków	-	TE/2236/880590 /19
	RINA RINA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

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WAGO GmbH & Co. KG  
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## 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]I X,2Ex e[iaGa]IIC T4Gc X,[ExiaDa] IIIC X)
	INMETRO TÜV Rheinland do Brasil Ltda.	-	TÜV_14.1911_X
	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

## Marking accessories

Marker carrier		
	Item no.: 750-103 Group marker carrier	<a href="http://www.wago.com/750-103">www.wago.com/750-103</a>
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	<a href="http://www.wago.com/2009-145">www.wago.com/2009-145</a>

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



	<p><b>Item no.: 2009-145</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white</p>	<p><a href="http://www.wago.com/2009-145">www.wago.com/2009-145</a></p>
	<p><b>Item no.: 2009-145/000-002</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow</p>	<p><a href="http://www.wago.com/2009-145/000-002">www.wago.com/2009-145/000-002</a></p>
	<p><b>Item no.: 2009-145/000-007</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray</p>	<p><a href="http://www.wago.com/2009-145/000-007">www.wago.com/2009-145/000-007</a></p>
	<p><b>Item no.: 2009-145/000-005</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red</p>	<p><a href="http://www.wago.com/2009-145/000-005">www.wago.com/2009-145/000-005</a></p>
	<p><b>Item no.: 2009-145/000-012</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange</p>	<p><a href="http://www.wago.com/2009-145/000-012">www.wago.com/2009-145/000-012</a></p>
	<p><b>Item no.: 2009-145/000-023</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green</p>	<p><a href="http://www.wago.com/2009-145/000-023">www.wago.com/2009-145/000-023</a></p>
	<p><b>Item no.: 2009-145/000-024</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet</p>	<p><a href="http://www.wago.com/2009-145/000-024">www.wago.com/2009-145/000-024</a></p>
	<p><b>Item no.: 248-501/000-006</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue</p>	<p><a href="http://www.wago.com/248-501/000-006">www.wago.com/248-501/000-006</a></p>
	<p><b>Item no.: 248-501/000-007</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray</p>	<p><a href="http://www.wago.com/248-501/000-007">www.wago.com/248-501/000-007</a></p>
	<p><b>Item no.: 248-501/000-002</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow</p>	<p><a href="http://www.wago.com/248-501/000-002">www.wago.com/248-501/000-002</a></p>
	<p><b>Item no.: 248-501/000-012</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange</p>	<p><a href="http://www.wago.com/248-501/000-012">www.wago.com/248-501/000-012</a></p>
	<p><b>Item no.: 248-501</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white</p>	<p><a href="http://www.wago.com/248-501">www.wago.com/248-501</a></p>

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



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

Group marker carrier



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

[www.wago.com/750-107](http://www.wago.com/750-107)

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](http://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](http://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](http://www.wago.com/790-108)



**Item no.:** 790-140  
Shield clamping saddle; diameter of compatible conductor

[www.wago.com/790-140](http://www.wago.com/790-140)



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

[www.wago.com/790-216](http://www.wago.com/790-216)



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

[www.wago.com/790-220](http://www.wago.com/790-220)



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

[www.wago.com/790-208](http://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](http://www.wago.com/750-625/000-001)

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



Item no.: 750-606

Power Supply; 24 VDC; Diagnostics; Intrinsically safe

[www.wago.com/750-606](http://www.wago.com/750-606)**Carrier rail**

## Mounting accessories

	<b>Item no.: 210-197</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-197">www.wago.com/210-197</a>
	<b>Item no.: 210-198</b> Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored	<a href="http://www.wago.com/210-198">www.wago.com/210-198</a>
	<b>Item no.: 210-504</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-504">www.wago.com/210-504</a>
	<b>Item no.: 210-505</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-505">www.wago.com/210-505</a>
	<b>Item no.: 210-506</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-506">www.wago.com/210-506</a>
	<b>Item no.: 210-508</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-508">www.wago.com/210-508</a>
	<b>Item no.: 210-113</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-113">www.wago.com/210-113</a>
	<b>Item no.: 210-118</b> Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-118">www.wago.com/210-118</a>
	<b>Item no.: 210-112</b> 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	<a href="http://www.wago.com/210-112">www.wago.com/210-112</a>
	<b>Item no.: 210-114</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-114">www.wago.com/210-114</a>
	<b>Item no.: 210-115</b> 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	<a href="http://www.wago.com/210-115">www.wago.com/210-115</a>
	<b>Item no.: 210-196</b> Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-196">www.wago.com/210-196</a>

**Downloads****Documentation****Data sheet**

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

WAGO GmbH &amp; Co. KG

Hansastr. 27

32423 Minden

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

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

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### Manual

System Manual WAGO I/O System 750/753  
Decentralized Automation TechnologyV 3.3.0  
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Product Manual 4AI 0/4–20 mA, Ex i

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### Instruction Leaflet

CCC Ex (Additional information)  
WAGO-I/O-SYSTEM 750-\*\*\* Ex i

2023 Apr 26

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### System Description

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

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Ex i Overview

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Overview on WAGO-I/O-SYSTEM 750 approvals

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### Additional Information

Disposal and Recycling  
Electrical and electronic equipment, Batteries, PackagingV 1.1.0  
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### CAD/CAE-Data

#### CAD data

2D/3D Models 750-486

URL

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#### CAE data

EPLAN Data Portal 750-486	<a href="#">URL</a>	<a href="#">Download</a>
WSCAD Universe 750-486	<a href="#">URL</a>	<a href="#">Download</a>
ZUKEN Portal 750-486	<a href="#">URL</a>	<a href="#">Download</a>

#### Installation Notes

#### Product family

**WAGO I/O System 750/753**

[Show all products from the family](#)

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Hansastr. 27

32423 Minden

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