

**Data sheet | Item number: 750-453**

4-channel analog input; 0 ... 20 mA; Single-ended

[www.wago.com/750-453](http://www.wago.com/750-453)



**Color:**



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

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### Item description

This analog input module processes standard 0–20 mA signals.

The input signal is electrically isolated and is transmitted with a resolution of 12 bits.

The internal system supply powers the module.

The input channels of the module have a common ground potential.

### Data

#### Technical data

Number of analog inputs	4
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Total number of channels (module)	4
Signal type	Current
Signal type (current)	0 ... 20 mADC
Sensor connection	4 x (2-wire)
Input voltage (max.)	32 V
Signal characteristics	Single-ended
Resolution [bit]	12 bits
Input resistance (max.)	100 Ω
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
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	65 mA
Supply voltage (field)	24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact)
Isolation	500 V system/field
Indicators	LED (A-D) 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)	10 A

### Connection data

Connection technology: inputs/outputs	8 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	12 mm / 0.472 inches
Height	100 mm / 3.937 inches
Depth	69.8 mm / 2.748 inches
Depth from upper-edge of DIN-rail	62.6 mm / 2.465 inches

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## Mechanical Data

Mounting type	DIN-35 rail
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## Material Data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	1.289 MJ
Weight	51.2 g
Conformity marking	CE

## Environmental requirements

Ambient temperature (operation)	0 ... +55 °C
Ambient temperature (storage)	-40 ... +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 61000-6-4, 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

Product Group	15 (I/O System)
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	

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PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4045454481902
Customs tariff number	85389099990

### Environmental Product Compliance

RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a) 7(c)-I 7(c)-II

### Approvals / Certificates

#### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>EAC</b> Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C-DE.AM02.B.00087/19
	<b>KC</b> National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-AIM750
	<b>UL</b> Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

#### Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	<b>EU-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-
	<b>UK-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-

#### Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	22-2219060
	<b>BSH</b> Bundesamt fuer Seeschifffahrt und Hydrographie	-	1104
	<b>BV</b> Bureau Veritas S.A.	-	13453/E0 BV

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<b>DNV</b> DNV GL SE	DNV-CG-0339, Aug. 2021	TAA0000194
<b>KR</b> Korean Register of Shipping	-	KR HMB05880-AC001
<b>LR</b> Lloyds Register EMEA	-	LR22180952TA
<b>PRS</b> Polski Rejestr Statków	-	TE/2236/880590/19
<b>RINA</b> RINA Germany GmbH	-	ELE343521XG001

**Approvals for hazardous areas**

Logo	Approval	Additional Approval Text	Certificate name
	<b>ATEX</b> TUEV Nord Cert GmbH	EN 60079-0	TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc)
	<b>CCCEX</b> CQST/CNEx	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
	<b>EAC</b> Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02.B.00163 /19 (2Ex nA IIC T4 Gc X)
	<b>IECEX</b> TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 14.0035 X (Ex ec IIC T4 Gc)
	<b>INMETRO</b> TÜV Rheinland do Brasil Ltda.	IEC 60079-0	BR-Ex_TÜV 12.1297 X
	<b>UKEx</b> WAGO GmbH & Co. KG	EN 60079-0	UKCA_WAGO22UKEX003X_ec
	<b>UL</b> Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

**Optional accessories****System housing**

System enclosure	
<b>Item no.: 850-814/002-000</b> IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate	<a href="http://www.wago.com/850-814/002-000">www.wago.com/850-814/002-000</a>
<b>Item no.: 850-815/002-000</b> IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate	<a href="http://www.wago.com/850-815/002-000">www.wago.com/850-815/002-000</a>
<b>Item no.: 850-816/002-000</b> IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate	<a href="http://www.wago.com/850-816/002-000">www.wago.com/850-816/002-000</a>

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<b>Item no.: 850-817/002-000</b> IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate	<a href="http://www.wago.com/850-817/002-000">www.wago.com/850-817/002-000</a>
<b>Item no.: 850-825</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20	<a href="http://www.wago.com/850-825">www.wago.com/850-825</a>
<b>Item no.: 850-826</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	<a href="http://www.wago.com/850-826">www.wago.com/850-826</a>
<b>Item no.: 850-827</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	<a href="http://www.wago.com/850-827">www.wago.com/850-827</a>
<b>Item no.: 850-827/002-000</b> IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	<a href="http://www.wago.com/850-827/002-000">www.wago.com/850-827/002-000</a>
<b>Item no.: 850-826/002-000</b> IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	<a href="http://www.wago.com/850-826/002-000">www.wago.com/850-826/002-000</a>
<b>Item no.: 850-828/002-000</b> IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	<a href="http://www.wago.com/850-828/002-000">www.wago.com/850-828/002-000</a>
<b>Item no.: 850-828</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	<a href="http://www.wago.com/850-828">www.wago.com/850-828</a>
<b>Item no.: 850-834</b> IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20	<a href="http://www.wago.com/850-834">www.wago.com/850-834</a>
<b>Item no.: 850-835</b> IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	<a href="http://www.wago.com/850-835">www.wago.com/850-835</a>
<b>Item no.: 850-836</b> IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	<a href="http://www.wago.com/850-836">www.wago.com/850-836</a>
<b>Carrier rail</b>	
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;	<a href="http://www.wago.com/210-505">www.wago.com/210-505</a>

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silver-colored

**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](http://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](http://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](http://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](http://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](http://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](http://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; silver-colored [www.wago.com/210-115](http://www.wago.com/210-115)**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](http://www.wago.com/210-196)**Marking accessories**

## Marker carrier

**Item no.: 750-103**Group marker carrier [www.wago.com/750-103](http://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 [www.wago.com/2009-145/000-006](http://www.wago.com/2009-145/000-006)**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](http://www.wago.com/2009-145)**Item no.: 2009-145/000-002**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](http://www.wago.com/2009-145/000-002)**Item no.: 2009-145/000-007**Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray [www.wago.com/2009-145/000-007](http://www.wago.com/2009-145/000-007)**Item no.: 2009-145/000-005**Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red [www.wago.com/2009-145/000-005](http://www.wago.com/2009-145/000-005)**Item no.: 2009-145/000-012**

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Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

[www.wago.com/2009-145/000-012](http://www.wago.com/2009-145/000-012)

**Item no.: 2009-145/000-023**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

[www.wago.com/2009-145/000-023](http://www.wago.com/2009-145/000-023)

**Item no.: 2009-145/000-024**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

[www.wago.com/2009-145/000-024](http://www.wago.com/2009-145/000-024)

**Item no.: 248-501/000-006**

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

[www.wago.com/248-501/000-006](http://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; gray

[www.wago.com/248-501/000-007](http://www.wago.com/248-501/000-007)

**Item no.: 248-501/000-002**

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

[www.wago.com/248-501/000-002](http://www.wago.com/248-501/000-002)

**Item no.: 248-501/000-012**

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

[www.wago.com/248-501/000-012](http://www.wago.com/248-501/000-012)

**Item no.: 248-501**

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

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

**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)

**Item no.: 750-100**

Marker card; as a DIN A4 sheet; plain

[www.wago.com/750-100](http://www.wago.com/750-100)

Group marker carrier

**Item no.: 750-106**

Group marker carrier

[www.wago.com/750-106](http://www.wago.com/750-106)

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## Shield termination

Shield clamping saddles		
<b>Item no.: 790-116</b> Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm		<a href="http://www.wago.com/790-116">www.wago.com/790-116</a>
<b>Item no.: 790-124</b> Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm		<a href="http://www.wago.com/790-124">www.wago.com/790-124</a>
<b>Item no.: 790-108</b> Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm		<a href="http://www.wago.com/790-108">www.wago.com/790-108</a>
<b>Item no.: 790-140</b> Shield clamping saddle; diameter of compatible conductor		<a href="http://www.wago.com/790-140">www.wago.com/790-140</a>
<b>Item no.: 790-216</b> Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm		<a href="http://www.wago.com/790-216">www.wago.com/790-216</a>
<b>Item no.: 790-220</b> Shield clamping saddle; 30 mm wide; 6 ... 20 mm		<a href="http://www.wago.com/790-220">www.wago.com/790-220</a>
<b>Item no.: 790-208</b> Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm		<a href="http://www.wago.com/790-208">www.wago.com/790-208</a>

## Downloads

### Documentation

#### Manual

System Manual WAGO I/O System 750/753 Decentralized Automation Technology	V 3.3.3 2023 年8月29 日	pdf 8.7 MB	Download
Product Manual 4-channel, 0-20mA, single-ended	V 2.0.1 2023 年7月14 日	pdf 2.9 MB	Download
System Manual Series 750/753 Online HTML		URL	Download

#### Bid Text

750-453 X81 - Datei	2019 年2月19 日	xml 4.2 kB	Download
750-453 doc - Datei	2017 年10月17 日	doc 27.6 kB	Download
750-453 docx - Datei	2017 年10月17 日	docx 17.0 kB	Download

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[ausschreiben.de 750-453](http://ausschreiben.de/750-453)

[URL](#) [Download](#)

### Instruction Leaflet

CCC Ex (Additional information) WAGO-I/O-SYSTEM *750-****/*	2023 年4月26 日	pdf 163.6 kB	<a href="#">Download</a>
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### System Description

750/753 Series I/O-System – General Product Information		pdf 976.2 kB	<a href="#">Download</a>
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Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 223.5 kB	<a href="#">Download</a>
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### Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 年8月18 日	pdf 2.2 MB	<a href="#">Download</a>
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### CAD/CAE-Data

#### CAE data

WSCAD Universe 750-453		URL	<a href="#">Download</a>
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ZUKEN Portal 750-453		URL	<a href="#">Download</a>
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EPLAN Data Portal 750-453		URL	<a href="#">Download</a>
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#### CAD data

2D/3D Models 750-453		URL	<a href="#">Download</a>
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### Device Files

#### Device Driver

WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 2014 年9月10 日	zip 4.8 MB	<a href="#">Download</a>
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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 750-453

URL

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4-channel analog input; 0 ... 20 mA; Single-ended

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## Installation Notes

### Product family

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

[Show all products from the family](#)

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