

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

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

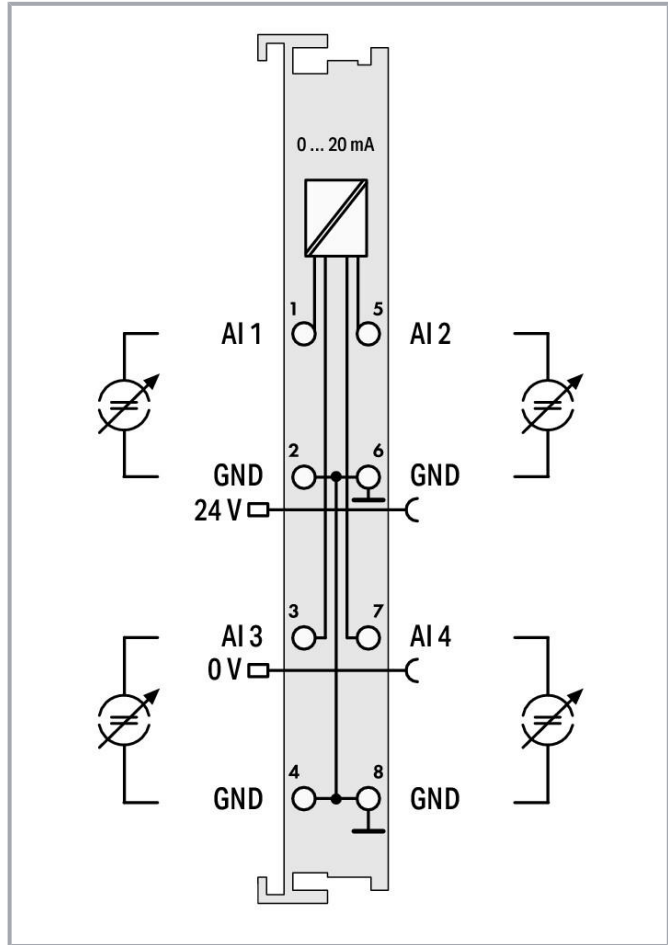
[www.wago.com/750-453](http://www.wago.com/750-453)



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

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## Item description

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

The input signal is electrically isolated and 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 characteristic	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
Power 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
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 inch

### Physical data

Width	12 mm / 0.472 inch
Height	100 mm / 3.937 inch
Depth	69.8 mm / 2.748 inch
Depth from upper edge of DIN-rail	62.6 mm / 2.465 inch

### Mechanical data

Mounting type	DIN-35 rail
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## Material data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	1.276 MJ
Weight	51.2 g
Conformity marking	CE

## Environmental requirements

Surrounding air temperature (operation)	0 ... 55 °C
Surrounding air temperature (storage)	-40 ... 85 °C
Protection type	IP20
Pollution degree (5)	2 per IEC 61131-2
Operating altitude	0 ... 2000 m
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 (Remote I/O)
PU (SPU)	1 Stück
Packaging type	box
Country of origin	DE
GTIN	4045454481902
Customs tariff number	85389099990

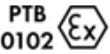





## Approvals / Certificates

### Ex-Approvals



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Logo	Approval	Additional Approval Text	Certificate name
	<b>ATEX</b> TUEV Nord Cert GmbH	EN 60079-0	TUEV_14_ATEX_148929_X (II 3 G Ex ex IIC T4 Gc)
	<b>CCCEX</b> CQST/CNEx	CNCA-C23-01	2020312310000215 (Ex nA 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	BR-Ex_TÜV 12.1297 X
	<b>UL</b> Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

## Country specific 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

## Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	19- HG1821926
	<b>BV</b> Bureau Veritas S.A.	-	13453/DO BV

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



<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAA0000194
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<b>KR</b> Korean Register of Shipping	-	KR HMB05880- AC001
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<b>LR</b> Lloyds Register EMEA	-	02/20026 (E6)
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<b>NK</b> Nippon Kaiji Kyokai	-	TA17255M
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<b>PRS</b> Polski Rejestr Statków	-	TE/2236 /880590/19
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<b>RINA</b> RINA Germany GmbH	-	ELE066419XG
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**UL-Approvals**

Logo	Approval	Additional Approval Text	Certificate name
	<b>UL</b> UL International Netherlands B.V. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

**Optional accessories**

**Marking accessories**

Marker carrier

**Item no.: 750-103**  
Group marker carrier

[www.wago.com/750-103](http://www.wago.com/750-103)

Marker

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

**Item no.: 2009-145/000-006** [www.wago.com/2009-145/000-006](http://www.wago.com/2009-145/000-006)  
 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

**Item no.: 2009-145** [www.wago.com/2009-145](http://www.wago.com/2009-145)  
 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

**Item no.: 2009-145/000-002** [www.wago.com/2009-145/000-002](http://www.wago.com/2009-145/000-002)  
 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

**Item no.: 2009-145/000-007** [www.wago.com/2009-145/000-007](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://www.wago.com/248-501)  
 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

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)

**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)

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](http://www.wago.com/210-197)



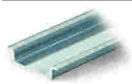
**Item no.: 210-198**  
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored

[www.wago.com/210-198](http://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](http://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](http://www.wago.com/210-505)



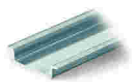
**Item no.: 210-506**  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored

[www.wago.com/210-506](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)

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





**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

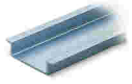
[www.wago.com/210-114](http://www.wago.com/210-114)



**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)

### Shield termination

#### Shield clamping saddle



**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)

### System housing

#### System enclosure

**Item no.: 850-814/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate

[www.wago.com/850-814/002-000](http://www.wago.com/850-814/002-000)

**Item no.: 850-815/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate

[www.wago.com/850-815/002-000](http://www.wago.com/850-815/002-000)

**Item no.: 850-816/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate

[www.wago.com/850-816/002-000](http://www.wago.com/850-816/002-000)

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

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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>

## Downloads

### Documentation

#### Manual

System Manual WAGO I/O System 750 / 753 Decentralized Automation Technology	V 3.0.3 17-Nov-2021	pdf 6.6 MB	Download
4-channel, 0-20mA, single-ended	V 1.1.1	pdf 2.0 MB	Download

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System Manual Series 750/753 Online HTML		URL	Download
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#### Bid Text

750-453 X81 - Datei	19-Feb-2019	xml 4.2 kB	Download
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750-453 docx - Datei	17-Oct-2017	docx 17.0 kB	Download
ausschreiben.de 750-453		URL	Download

#### System Description

750/753 Series I/O-System – General Product Information		pdf 1.7 MB	Download
Use in Hazardous Environments Term definition, marking and installation regulations	V 1.0.0	pdf 1.0 MB	Download
Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 780.2 kB	Download

#### Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download
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#### CAD/CAE-Data

##### CAE data

WSCAD Universe 750-453		URL	Download
ZUKEN Portal 750-453		URL	Download
EPLAN Data Portal 750-453		URL	Download

##### CAD data

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2D/3D Models 750-453

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## Device Files

### Device Driver

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

### Compliance Search

Environmental Product Compliance 750-453 4-channel analog input; 0 ... 20 mA; Single-ended	<a href="#">URL</a>	<a href="#">Download</a>
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## Installation Notes

## Product family

**WAGO I/O System 750/753**  
[Show all products from the family](#)

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