

Data sheet | Item number: 753-456

2-channel analog input; ± 10 VDC; Differential input

www.wago.com/753-456



Color:



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

WAGO GmbH & Co. KG
Hansastr. 27
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Item description

This analog input module processes standard ± 10 V 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 are differential inputs.

The shield directly connects to the DIN-rail.

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

**Data****Notes**

Note

Pluggable connectors and coding fingers (753 Series) are not included.

Technical data

Number of analog inputs	2
Total number of channels (module)	2
Signal type	Voltage
Signal type (voltage)	-10 ... +10 VDC
Sensor connection	2 x (2-wire)
Input voltage (max.)	35 V
Signal characteristics	Differential
Resolution [bit]	12 bits
Data width	2 x 16-bit data; 2 x 8-bit control/status (optional)
Internal resistance	570 kΩ
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.) of the upper-range value	0.015 %/K
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	80 mA
Isolation	500 V system/field
Indicators	LED (A, C) green: Function AI 1, AI 2

Connection data

Connection technology: inputs/outputs	8 x CAGE CLAMP®
Connection type 1	Inputs/Outputs
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inches

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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

Mechanical Data

Mounting type	DIN-35 rail
Pluggable connector	Pluggable

Material Data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	0.882 MJ
Weight	41 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 ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

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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
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4045454481735
Customs tariff number	85389099990

Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 25550-51-0 7439-92-1
REACH Candidate List Substance	4-Methyl-1,2-cyclohexanedicarboxylic anhydride 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)	d7038449-5b98-4164-b247-8ee522248cc5
SCIP notification number (Belgium)	2b8f1e38-328c-487d-b938-1aa5f81cf073
SCIP notification number (Bulgaria)	b686718d-9f4c-4dee-a706-33802c147272
SCIP notification number (Czech Republic)	a2b67b75-966a-4700-a744-38a28117474e
SCIP notification number (Denmark)	04d6f9fb-9bb6-4fc0-994d-d820a8af143d
SCIP notification number (Finland)	9b48e4c4-dc22-4e3d-b183-ebe05aa2d5c1
SCIP notification number (France)	a10fb68e-ff31-4e1c-a8e1-11bc1dc3cd87
SCIP notification number (Germany)	ff8af56e-535d-4397-83f6-15b2eb16b97b
SCIP notification number (Hungary)	c8952d12-6e61-42f1-8466-ec8da00937e6
SCIP notification number (Italy)	7f03e3e2-f54f-4a10-bff5-41a1e8105281
SCIP notification number (Netherlands)	e29802de-331d-497a-850b-3ed25312606e
SCIP notification number (Poland)	b1c5e318-aa76-4524-84b2-65eac936a6fe
SCIP notification number (Romania)	4eecf7c9-0f1c-48ae-94c7-ff6244436288

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SCIP notification number (Sweden)

1623a3a8-7d52-448d-8087-5cddccb1b640

Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	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
	UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
	UK-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
	BSH Bundesamt fuer Seeschifffahrt und Hydrographie	-	1104
	BV Bureau Veritas S.A.	-	13453/E0 BV
	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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Approvals for hazardous areas

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

Required accessories

Pluggable connector

Male connector/plug	
Item no.: 753-110 Plug	www.wago.com/753-110

Optional accessories

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	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
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

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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

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

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Item no.: 750-100 Marker card; as a DIN A4 sheet; plain	www.wago.com/750-100
Group marker carrier	
Item no.: 750-106 Group marker carrier	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
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 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
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
Pluggable connector	
Coding	
Item no.: 753-150 753 Series coding elements	www.wago.com/753-150

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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

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
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
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
Item no.: 850-817/002-000	IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate	www.wago.com/850-817/002-000
Item no.: 850-825	IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20	www.wago.com/850-825
Item no.: 850-826	IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	www.wago.com/850-826
Item no.: 850-827	IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	www.wago.com/850-827
Item no.: 850-827/002-000		

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IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

www.wago.com/850-827/002-000

Item no.: 850-826/002-000

IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

www.wago.com/850-826/002-000

Item no.: 850-828/002-000

IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip

www.wago.com/850-828/002-000

Item no.: 850-828

IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip

www.wago.com/850-828

Item no.: 850-834

IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20

www.wago.com/850-834

Item no.: 850-835

IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

www.wago.com/850-835

Item no.: 850-836

IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

www.wago.com/850-836

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 2-channel, ± 10VDC, diff.	V 1.2.0	pdf 4.1 MB	Download
System Manual Series 750/753 Online HTML		URL	Download

Bid Text

753-456 X81 - Datei	2019 年2月19 日	xml 4.7 kB	Download
753-456 doc - Datei	2017 年10月17 日	doc 28.7 kB	Download

Instruction Leaflet

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CCC Ex (Additional information) WAGO-I/O-SYSTEM *750-****/*	2023 年4月26 日	pdf 163.6 kB	Download
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System Description

750/753 Series I/O-System – General Product Information		pdf 976.2 kB	Download
Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 223.5 kB	Download

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	Download
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CAD/CAE-Data

CAD data

2D/3D Models 753-456		URL	Download
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CAE data

EPLAN Data Portal 753-456		URL	Download
ZUKEN Portal 753-456		URL	Download
WSCAD Universe 753-456		URL	Download

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 753-456 2-channel analog input; ±10 VDC; Differential input		URL	Download
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Installation Notes

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Product family

WAGO I/O System 750/753

[Show all products from the family](#)

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