

Data sheet | Item number: 753-461

2-channel analog input; For Pt100/RTD resistance sensors

www.wago.com/753-461



Color:



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

WAGO GmbH & Co. KG
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Item description

This analog input module directly connects to Pt resistance sensors.

Two- or three-wire sensors can be connected.

The module automatically linearizes the entire temperature range. A sensor error (short circuit, line break or measurement range overflow) is indicated by a red LED.

A green LED indicates readiness for operation and error-free communication with the coupler.

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.
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Technical data

Number of analog inputs	2
Total number of channels (module)	2
Signal type	Resistance measurement
Sensor connection	2 x (2-wire, 3-wire)
Data width	2 x 16-bit data; 2 x 8-bit control/status (optional)
Resolution (over entire range)	0.1 °C
Conversion time (typ.)	320 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	0.01 %/K
Measuring current (typ.)	0.5 mA
Response time (max.)	4 s
Sensor types	Pt100
Temperature range	-200 ... +850 °C
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; LED (B, D) red: Error 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	0.916 MJ
Weight	42 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
Recupel Type	
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4045454487270
Customs tariff number	85389099990

Environmental Product Compliance

CAS-No.	1317-36-8 7439-92-1
REACH Candidate List Substance	Lead Lead monoxide
RoHS Compliance Status	Compliant, With Exemption
RoHS Exemption	7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	fccd7dc4-015d-4b4a-bc2c-b799842be0ab
SCIP notification number (Belgium)	a561b6bd-af27-4a18-afcf-a3fc72fab78f
SCIP notification number (Bulgaria)	17368dc0-7235-48e1-af21-cf4954b7d093
SCIP notification number (Czech Republic)	f8cc21f2-ef5f-411d-9e74-53d83239f940
SCIP notification number (Denmark)	92ed5aab-c271-45a1-9be1-3ce309dea947
SCIP notification number (Finland)	bc595ecb-3e22-4c7e-b149-d151f14bcb1c
SCIP notification number (France)	3929b8ab-76b1-48aa-b843-f7555aaf5a0b
SCIP notification number (Germany)	e048e88c-36d7-4d75-b5f5-4d19f83db225
SCIP notification number (Hungary)	41466afd-6dad-4abb-a73f-6f24e5302cc3
SCIP notification number (Italy)	3b79ead2-1db0-4e7b-8091-fcf93006c6e9
SCIP notification number (Netherlands)	df483328-52d8-46fa-b28e-3ec19e91a264
SCIP notification number (Poland)	fed9cb24-aa31-4245-ba16-1a80488e4b32
SCIP notification number (Romania)	0d0316fd-6741-4004-97aa-49a3a4439e4e
SCIP notification number (Sweden)	7f2e812c-8f35-47b4-9238-ea58491f519f

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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

Approvals for hazardous areas

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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

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		www.wago.com/850-825

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IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20

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

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

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

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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

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

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray /000-007

www.wago.com/2009-145

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 /000-005

www.wago.com/2009-145

Item no.: 2009-145/000-012

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange /000-012

www.wago.com/2009-145

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 /000-023

www.wago.com/2009-145

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 /000-024

www.wago.com/2009-145

Item no.: 248-501/000-006

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue /000-006

www.wago.com/248-501

Item no.: 248-501/000-007

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray /000-007

www.wago.com/248-501

Item no.: 248-501/000-002

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow /000-002

www.wago.com/248-501

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

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**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**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, resistance sensors PT100 / RTD / NTC 20kOhm	V 1.3.1	pdf 2.4 MB	Download
System Manual Series 750/753 Online HTML		URL	Download

Bid Text

753-461 X81 - Datei	2019 年2月19 日	xml 5.1 kB	Download
753-461 doc - Datei	2017 年10月20 日	doc 29.7 kB	Download

Instruction Leaflet

CCC Ex (Additional information)

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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
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Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 223.5 kB	Download
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Additional Information

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 753-461		URL	Download
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CAE data

WSCAD Universe 753-461		URL	Download
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ZUKEN Portal 753-461		URL	Download
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EPLAN Data Portal 753-461		URL	Download
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Environmental Product Compliance**Compliance Search**

Environmental Product Compliance 753-461		URL	Download
2-channel analog input; For Pt100/RTD resistance sensors			

Installation Notes

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Product family

WAGO I/O System 750/753

[Show all products from the family](#)

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