

**Data sheet | Item number: 750-471**

4-channel analog input; Voltage/Current; Differential input; 16 bits;  
Diagnostics

[www.wago.com/750-471](http://www.wago.com/750-471)



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

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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 processes both voltage and current differential signals.

- 0 ... 20 mA, 4 ... 20 mA, 3.6 ... 21 mA NE43,  $\pm 20$  mA, 0 ... 10 V,  $\pm 10$  V,  $\pm 200$  mV
- Channel-wise parameterizable measurement ranges
- Electrically isolated channels
- 16-bit resolution

A wire break, overload or out-of-measurement range are indicated channel by channel via red LED depending on the set measurement range.

The module can be configured via GSD file, *e!COCKPIT* and *WAGO-I/O-CHECK*.

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## Data

### Technical data

Number of analog inputs	4
Total number of channels (module)	4
Signal type	Voltage Current
Signal type (current)	0 ... 20 mADC; 4 ... 20 mADC; 3.6 ... 21 mADC; -20 ... +20 mADC
Signal type (voltage)	0 ... 10 VDC; -10 ... +10 VDC; -0.2 ... +0.2 VDC
Signal type (configurable)	yes
Sensor connection	4 x (2-wire)
Input filter	50 Hz; 60 Hz; filter off
Input voltage (max.)	31.2 VDC
Signal characteristics	Differential
Diagnostics	Measurement range overflow/underflow; wire break in operating mode 4 ... 20 mA and 3.6 ... 21 mA NE43; overload in operating mode 0 ... 20 mA, 4 ... 20 mA, $\pm 20$ mA, 3.6 ... 21 mA NE43
Resolution [bit]	16 bits
Input resistance (max.)	120 $\Omega$
Data width	4 x 16-bit data; 4 x 8-bit control/status (optional)
Internal resistance	100 k $\Omega$
Conversion time (typ.)	10 ms
Conversion time	Exception: The $\pm 200$ mV measurement range has a conversion time of 10 s and is therefore only suitable for slow systems.
Reference for measurement error	Input ranges
Measurement error (reference temperature)	25 $^{\circ}\text{C}$
Measurement error, deviation (max.) from the upper-range value	0.1 %
Reference for measurement error (2)	$\pm 200$ mV
Measurement error, reference temperature (2)	25 $^{\circ}\text{C}$
Measurement error, deviation (max.) of the upper-range value (2)	0.3 %
Temperature error (max.) of the upper-range value	0.01 %/K
Configuration options	WAGO-I/O-CHECK CODESYS Library <i>e!COCKPIT</i>
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	100 mA
Supply voltage (field)	24 VDC; via power jumper contacts (power supply via blade contact; transmission via spring contact)
Isolation	Functional insulation: 2000 VDC system/channel; 2000 VDC channel /channel

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Indicators	LED (A-D) green: Function AI 1 ... AI 4; LED (E-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)	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

### Mechanical Data

Mounting type	DIN-35 rail
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### Material Data

Housing material	Polycarbonate; polyamide 6.6
Fire load	0.967 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

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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

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	4055143764520
Customs tariff number	85389099990

### 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)	2259e314-2ba4-4c8f-a6fb-5f9cf4d694d9
SCIP notification number (Belgium)	85d1aa7d-11d3-4325-a5a1-b9a6698d2053
SCIP notification number (Bulgaria)	af6b4188-d4ed-42c6-a21b-97eb53f7c56b
SCIP notification number (Czech Republic)	483e134c-72a0-4a87-a850-3b59e3c5d03c
SCIP notification number (Denmark)	119fa273-16c7-4739-8c13-31d8e88e7bc9

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SCIP notification number (Finland)	0edecb36-0917-43f1-9d0d-0a7886e5eb55
SCIP notification number (France)	c2de7786-06da-42d1-8d5a-862f0bc75550
SCIP notification number (Germany)	ef708d8c-2019-47c5-a857-5aa0a272aa7a
SCIP notification number (Hungary)	b1272e4b-085d-4a90-b5fe-ebb0dac3dcd9
SCIP notification number (Italy)	593d824e-d8f3-4809-b314-4ad4b4d0b79a
SCIP notification number (Netherlands)	54ec2df3-0b32-4230-8860-811f2b8ce8a5
SCIP notification number (Poland)	917e9b69-e67b-4b60-b6db-e1a8946a3b04
SCIP notification number (Romania)	83d8a49b-0480-46fb-8ba6-a15059c005a4
SCIP notification number (Sweden)	e376c637-82f8-41d1-853e-d725f00d2bb3

## 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>EAC</b> Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AZ58.B.2173-21 e (2Ex e IIC T4 Gc X)
	<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 61010-2-201	E175199
	<b>UL</b> Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	-	E175199

### 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
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<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.	Rules for class. of Steel Ships	66711/A0
<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>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>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

**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 Analog Input; for Voltage/Current 4AI U/I Diff Galv	V 1.1.1 2023 年7月11 日	pdf 3.4 MB	Download
System Manual Series 750/753		URL	Download

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Online HTML

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### Bid Text

750-471 X81 - Datei	2019 年2月19 日	xml 5.1 kB	Download
750-471 doc - Datei	2018 年7月24 日	doc 31.2 kB	Download

### Instruction Leaflet

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

### CAD/CAE-Data

#### CAD data

2D/3D Models 750-471		URL	Download
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#### CAE data

EPLAN Data Portal 750-471		URL	Download
ZUKEN Portal 750-471		URL	Download

### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 750-471

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## Installation Notes

## Product family

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

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