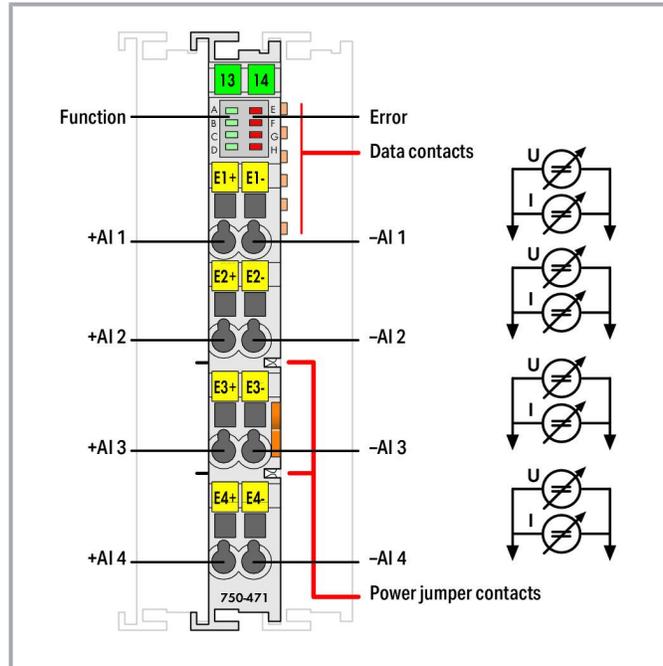


Data sheet | Item number: 750-471

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

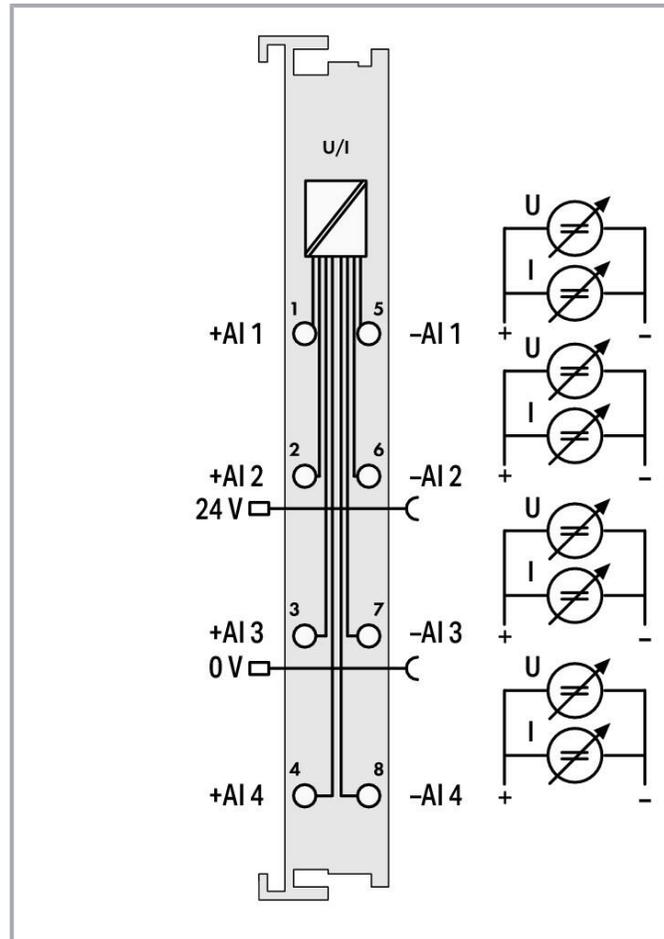
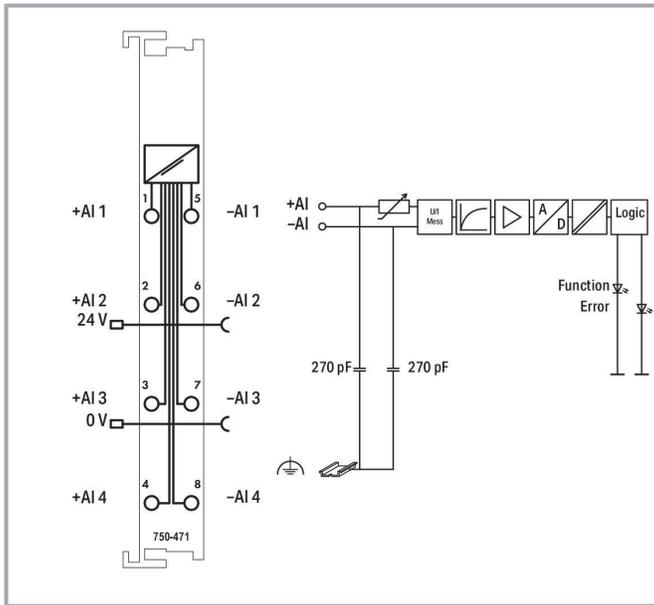
[www.wago.com/750-471](http://www.wago.com/750-471)



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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 e!COCKPIT
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

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	/channel
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
---------------	-------------

### 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)	-25 ... +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 %

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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

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	4055143764520
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	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
SCIP notification number (Finland)	0edecb36-0917-43f1-9d0d-0a7886e5eb55
SCIP notification number (France)	c2de7786-06da-42d1-8d5a-862f0bc75550

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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
	CCC CNEX	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
	EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C-DE.AM02. B.00087/19
	EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AZ58. B.2173-21 e (2Ex e IIC T4 Gc X)
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43- AIM750
	UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 61010-2-201	E175199
	UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	-	E175199

### 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	-	-

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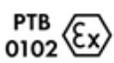


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## Approvals for marine applications

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.	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	TUEV_14_ATEX_148929_X (II 3 G Ex ec IIC T4 Gc)
	<b>CCC</b> CNEX	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)

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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

## Downloads

### Documentation

#### Manual

System Manual WAGO I/O System 750/753 Decentralized Automation Technology	V 3.3.0 2023 May 4	pdf 8.8 MB	Download
Product Manual 4-Channel Analog Input; for Voltage/Current 4AI U/I Diff Galv	V 1.1.0 2022 Feb 14	pdf 4.3 MB	Download
System Manual Series 750/753 Online HTML		URL	Download

#### Bid Text

750-471 X81 - Datei	2019 Feb 19	xml 5.1 kB	Download
750-471 doc - Datei	2018 Jul 24	doc 31.2 kB	Download

#### Instruction Leaflet

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CCC Ex (Additional information) WAGO-I/O-SYSTEM *750-****/*	2023 Apr 26	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 Aug 18	pdf 2.2 MB	Download
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#### System Description

750/753 Series I/O-System – General Product Information		pdf 1.7 MB	Download
Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 789.0 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 4-channel analog input; Voltage/Current; Differential input; 16 bits; Diagnostics		URL	Download
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#### Installation Notes

#### Product family

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

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