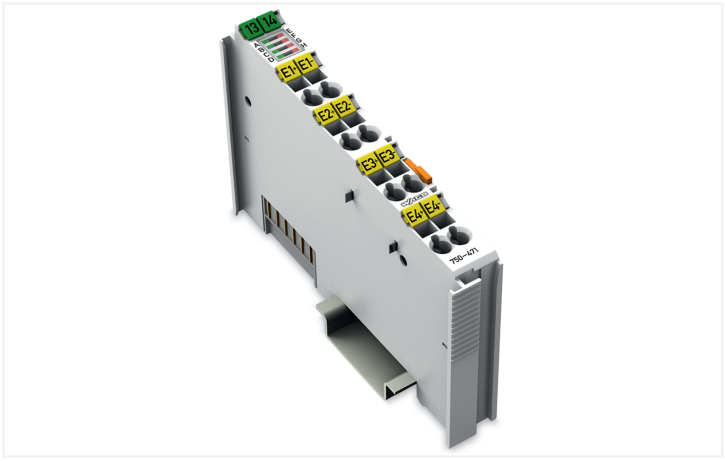
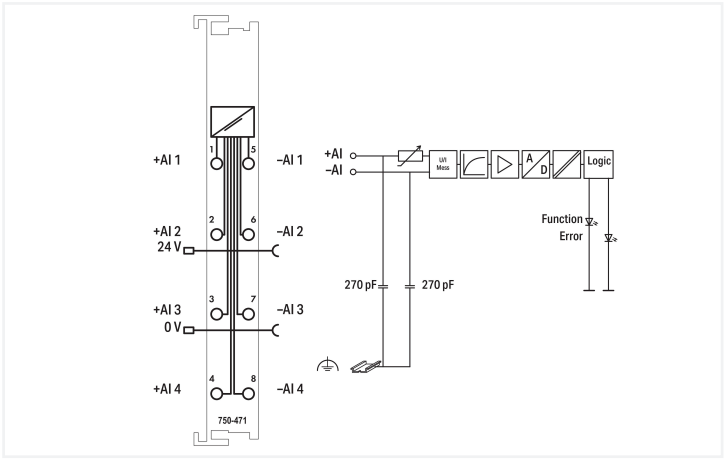
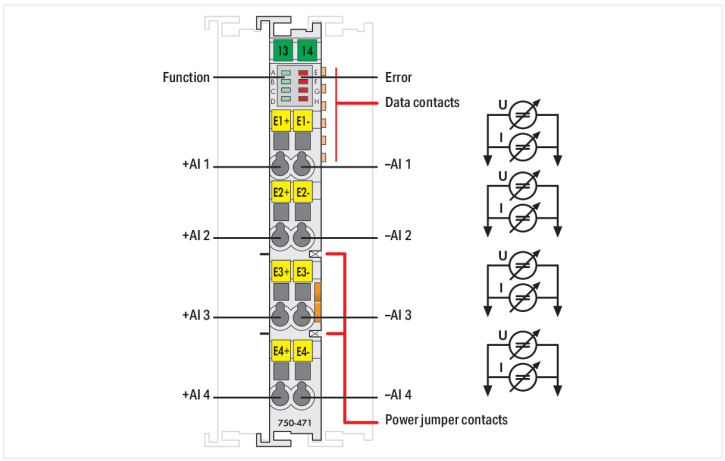
Data Sheet | Item Number: 750-471

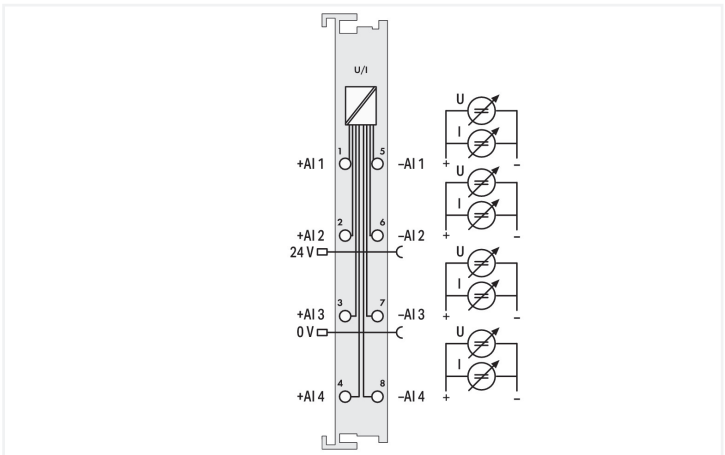
4-channel analog input; Voltage/Current; Differential input; 16 bits; Diagnostics

https://www.wago.com/750-471









This analog input module processes both voltage and current differential signals.

- 0 … 20 mA, 4 … 20 mA, 3.6 … 21 mA NE43, ±20 mA, 0 … 10 V, ±10 V, ±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*.

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, ±20 mA, 3.6 … 21 mA NE43
Resolution [bit]	16 bits
Input resistance (max.)	120 Ω
Data width	4 x 16-bit data; 4 x 8-bit control/status (optional)

Technical data

Internal resistance	100 kΩ
Conversion time (typ.)	10 ms
Conversion time	Exception: The ±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 °C
Measurement error, deviation (max.) from the upper-range value	0.1 %
Reference for measurement error (2)	±200 mV
Measurement error, reference temperature (2)	25 °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 (system supply)	100 mA
Supply voltage (field)	24 VDC; via power jumper contacts (power supply via blade contact; transmission (field side supply voltage only) via spring contact)
Isolation	Functional insulation: 2000 VDC system/channel; 800 VDC channel/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: I/O	8 x CAGE CLAMP®
Connectable conductor materials	Copper
Connection type	Inputs/outputs
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 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
Pluggable connector	fixed

Material data

Housing material	Polycarbonate; polyamide 6.6
Fire load	0.876 MJ
Weight	50.5 g
Conformity marking	CE

Continued on next page

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 left, horizontal right, horizontal top, horizontal bottom, vertical top and vertical bottom
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_2S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO_2 contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data

PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143764520
Customs tariff number	85437090990

Product Classification

UNSPSC	32101505
eCl@ss 10.0	27-24-26-01
eCl@ss 9.0	27-24-26-01
ETIM 9.0	EC001596
ETIM 10.0	EC001596
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 7439-92-1 80-43-3
REACH Candidate List Substance	Diboron trioxide Lead Lead monoxide Peroxide, bis(1-methyl-1-phenylethyl)
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
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

Continued on next page

Environmental Product Compliance

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

Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-AIM750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	-	E175199

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	25-0415412
BSH Bundesamt fuer Seeschiffahrt und Hydrographie	-	1104
BV Bureau Veritas S.A.	Rules for class. of Steel Ships	66711/A0
DNV DNV GL SE	DNV-CG-0339,Aug.2021	TAA0000194
KR Korean Register of Shipping	-	KR HMB05880-AC001
LR Lloyds Register EMEA	-	LR22180952TA
NK Nippon Kaiji Kyokai	Guidel. Perform. Type Approvals	TA25276M
PRS Polski Rejestr Statków	-	TE/1101/880590/23
RINA RINA Germany GmbH	-	ELE343521XG001

Approvals for hazardous areas

Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc)
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	TÜV 12.1297 X
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX003X_ec
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726

Continued on next page

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 750-471	

Documentation

Manual

Product Manual 4-Channel Analog Input; for Voltage/Current	V 1.1.1 11.07.2023	pdf 3313.29 KB	
System Manual Series 750/753			

System Description

750/753 Series I/O-System – General Product Information	pdf 953.35 KB	
Overview on WAGO-I/O-SYSTEM 750 approvals	pdf 770.48 KB	

Bid Text

750-471	19.02.2019	xml 4.99 KB	
750-471	24.07.2018	doc 30.50 KB	

Instruction Leaflet

CCC Ex (Additional information)	26.04.2023	pdf 159.76 KB	

CAD/CAE-Data

CAD data

2D/3D Models 750-471	

CAE data

EPLAN Data Portal 750-471	
ZUKEN Portal 750-471	