

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)
Internal resistance	100 k Ω
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 $^{\circ}$ 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 $^{\circ}$ 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	<i>WAGO-I/O-CHECK</i> 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 (supply voltage field side only) via spring contact)
Isolation	Functional insulation: 2000 VDC system/channel; 2000 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: 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	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	50.5 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 left, horizontal right, horizontal up, horizontal down, 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 ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ 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 9.0	EC001596
ETIM 8.0	EC001596
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 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
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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
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