

Data Sheet | Item Number: 750-461

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

<https://www.wago.com/750-461>



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.

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	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

Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	1.034 MJ
Weight	50.7 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

Product Group	15 (I/O System)
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	4045454486679
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)	75429670-35e3-4569-a32e-8e020348f292
SCIP notification number (Belgium)	bc0715bd-bcab-4da3-92dc-0865a4afe4d8
SCIP notification number (Bulgaria)	e74b48b1-9cb8-41f2-8ffb-42980ae09654
SCIP notification number (Czech Republic)	606ce528-9956-410f-8b46-09b4bb84b033
SCIP notification number (Denmark)	0b1c8695-17df-469a-8d76-27e5dfedd880

Environmental Product Compliance

SCIP notification number (Finland)	e9157e84-07c5-404f-be1e-fee97dad9dd1
SCIP notification number (France)	e1650623-f1de-4481-9923-0b1cfed3eda0
SCIP notification number (Germany)	3e718a18-6d86-4b76-970f-a5da6282c797
SCIP notification number (Hungary)	5f27b834-6bd0-46cf-bd12-62d975caf481
SCIP notification number (Italy)	1fca87de-4bb2-4af1-8393-eac58bcfa30e
SCIP notification number (Netherlands)	62be64b0-d628-49d4-bc55-65fcd4e4702f
SCIP notification number (Poland)	3ba89961-35de-4aa7-b416-65eebc778cf1
SCIP notification number (Romania)	e5a6ca0d-b02c-40a5-9ac0-ce77d43350d5
SCIP notification number (Sweden)	79fbe2b1-5c4e-4fe3-9706-7fdd31324fb0