Data Sheet | Item Number: 750-481/003-000

2-channel analog input; Resistance measurement; Intrinsically safe

https://www.wago.com/750-481/003-000

This analog input module directly connects to Pt and Ni resistance sensors or potentiometers located in hazardous areas of Zones 0 and 1.
The WAGO I/O System 750 must be installed either in Zone 2 or in a non-hazardous area. The 24 V supply is derived from the module's power jumper contacts.
The shield directly connects to the DIN-rail.

Indicators:

- Green LED (availability ON/OFF)
- Red LED (short circuit, wire breakage, measurement range overflow/underflow)

Field and system levels are electrically isolated.

Technical data

Item description	2-Channel Analog Input; RTD
Sensor types	Pt100; Configurable: Pt200, Pt500, Pt1000, Ni100, Ni120, Ni1000; Potentiometer setting 0 … 100 %: 1k2, 5k0
Temperature range	–200 … +850 °C (Pt), –60 … +250 °C (Ni), –80 … +320 °C (Ni120)
Resolution (over entire range)	0.1 °C, 0.1 Ω, 0.0049 %
Conversion time	150 … 500 ms (per channel)
Measuring current (typ.)	< 0.5 mA
Data width	2 x 16-bit data; 2 x 8-bit control/status (optional)
Power consumption $P_{max.}$	0.45 W
Power loss P_l	0.45 W

Explosion protection

Safety-relevant data (circuit)	U_o = 7.2 V ; I_o = 5.8 mA; P_o = 10.5 mW; linear characteristic curve
Reactances Ex ia IIC	L_o = 0.9 H; C_o = 13.5 µF
Reactances Ex ia IIB	L_o = 1 H; C_o = 240 µF
Reactances Ex ia IIA	L_o = 1 H; C_o = 1000 µF
Reactances Ex ia I	L_o = 1 H; C_o = 1000 µF
Reactances (note)	Reactances without accounting for the concurrence of capacitance (C_o) and inductance (L_o)

Material data

Fire load	2.251 MJ
Weight	92.7 g

Commercial data

Product Group	15 (I/O System)
PU (SPU)	5 pcs
Packaging type	Box
Country of origin	DE
GTIN	4050821769132
Customs tariff number	85389099990
End of Sale	2021-12-31
End of Production	2020-12-31
End of Delivery	2022-03-01
End of Service and Repair	2023-12-31

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Product Classification

UNSPSC	32151705
eCl@ss 10.0	27-24-26-01
eCl@ss 9.0	27-24-26-01
ETIM 9.0	EC001596
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 7439-92-1
REACH Candidate List Substance	Diboron trioxide Lead Lead monoxide
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	fd7fc909-bea7-4ff5-9ef9-d555ae3f61c8
SCIP notification number (Belgium)	64953c5d-d266-4abb-8705-f696c56dba5b
SCIP notification number (Bulgaria)	6d2bf9cb-ecdc-4f7e-82a7-c38d961359f7
SCIP notification number (Czech Republic)	ad08b048-63a1-469e-a4a2-db978fcc9267
SCIP notification number (Denmark)	b6f69e5a-a9f0-49be-ac21-4a2f025a1340
SCIP notification number (Finland)	fad4b1bd-851d-49d6-a359-03d00addfba6
SCIP notification number (France)	e971e74f-8dcd-4c88-a3d9-b149aaf0e49f
SCIP notification number (Germany)	78ef6ead-2be5-4da3-b4b7-7fc08c0f2ef3
SCIP notification number (Hungary)	993af024-34b0-4cbf-a8b0-622dcb92cdff
SCIP notification number (Italy)	fd497d99-a40e-498c-814b-91c7920415b5
SCIP notification number (Netherlands)	95efcc28-9c3d-4438-9dfa-84c5b8f670bd
SCIP notification number (Poland)	068b620b-e6ae-423f-8973-931e324899f3
SCIP notification number (Romania)	69f08403-1709-4d37-9e87-574e422c3059
SCIP notification number (Sweden)	b79fffa4-f025-4253-a8b0-cb616c22b02e

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-AIM750

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	25-0415412
BV Bureau Veritas S.A.	-	30389/C0 BV

Approvals for marine applications

DNV DNV GL SE	DNV-CG-0339,Aug.2021	TAA0000194
KR Korean Register of Shipping	-	KR HMB05880-AC001
LR Lloyds Register EMEA	-	LR22180952TA
PRS Polski Rejestr Statków	-	TE/1101/880590/23
RINA RINA Germany GmbH	-	ELE343521XG001

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Approvals for hazardous areas

Approval	Standard	Certificate Name
AEx UL International Germany GmbH	UL 60079	E480271
ATEX TUEV Nord Cert GmbH	EN 60079	TUEV12ATEX106032X (Ex ec[iaGa] IIC T4 Gc, [Ex iaDa] IIIC, [Ex iaMa] I)
CCC CNEX	CNCA-C23-01	2020312310000211 (Ex ec [iaGa] IIC T4 Gc, [Ex iaDa] II-IC, [Ex iaMa] I)
IECEx TUEV Nord Cert GmbH	IEC 60079	IECEx TUN12.0039X (Ex ec [iaGa] IIC T4 Gc, [Ex iaDa] II-IC, [Ex iaMa] I)
INMETRO TÜV Rheinland do Brasil Lt-da.	-	TÜV_14.1911_X
UKEx Element Materials Technology UK	-	EMA21UKEX0069X

Downloads

CAD/CAE-Data

CAD data

2D/3D Models
750-481/003-000

CAE data

EPLAN Data Portal
750-481/003-000

WSCAD Universe
750-481/003-000

ZUKEN Portal
750-481/003-000