

This analog input module directly connects to NTC 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)
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 (25 °C)	0.5 ... 3.0 K (temperature-dependent)
Temperature error (max.) of the upper-range value	0.002 %/K
Measuring current (typ.)	0.05 mA
Response time (max.)	4 s
Sensor types	NTC 20 kOhm
Temperature range	-30 ... +130 °C
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	65 mA
Isolation	500 V system/field

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
---------------	-------------

Material data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	0.987 MJ
Weight	51.5 g
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	0 ... +55 °C
Surrounding air temperature (storage)	-25 ... +85 °C
Protection type	IP20
Pollution degree (5)	2 per IEC 61131-2
Operating altitude	0 ... 2000 m / 0 ... 6562 ft
Mounting position	horizontal (standing/lying); vertical
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

Environmental requirements

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 (Remote I/O)
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 Stück
Packaging type	Box
Country of origin VKOrg Germany	DE
GTIN	4045454408046
Customs tariff number VKOrg Germany	85389099990

Approvals and certificates

Ex-Approvals



Approval	Standard	Certificate name
ATEX TUEV Nord Cert GmbH	EN 60079-0	
CCCEX CQST/CNEX	CNCA-C23-01	2020312310000215 (Ex nA IIC T4 Gc)
EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02. B.00163/19 (2Ex nA IIC T4 Gc X)
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
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

Country specific Approvals



Approval	Standard	Certificate name
EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C-DE.AM02. B.00087/19
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-AIM750

Ship Approvals



Approval	Standard	Certificate name
ABS American Bureau of Shipping	-	22-2219060
BSH Bundesamt fuer Seeschifffahrt und Hydrographie	-	1104
BV Bureau Veritas S.A.	-	13453/E0 BV

Ship Approvals

DNV DNV Germany GmbH	DNV-CG-0339, Aug.2021	TAA0000194
KR Korean Register of Shipping	-	KR HMB05880-AC001
LR Lloyds Register EMEA	-	LR22180952TA
PRS Polski Rejestr Statków	-	TE/2236/880590/19
RINA RINA Germany GmbH	-	ELE343521XG001

UL-Approvals



Approval	Standard	Certificate name
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 750-461/020-000 ↓

Documentation

Manual			
2-channel Analog Input for Resistance Sensors	V 1.4.1	pdf 2916.84 KB	↓
System Manual WAGO I/O System 750 / 753	V 3.1.0 11.05.2022	pdf 8495.90 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	↓
Use in Hazardous Environments	V 1.0.0	pdf 1007.06 KB	↓

Additional Information			
Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 259.56 KB	↓

Bid Text			
750-461/020-000	19.02.2019	xml 4.52 KB	↓
750-461/020-000	20.10.2017	doc 29.00 KB	↓


CAD/CAE-Data

CAD data	
2D/3D Models 750-461/020-000	↓

CAE data	
EPLAN Data Portal 750-461/020-000	↓
WSCAD Universe 750-461/020-000	↓
ZUKEN Portal 750-461/020-000	↓

Device Files

Device Driver

WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 10.09.2014	zip 4721.96 KB	
--	-----------------------	-------------------	---