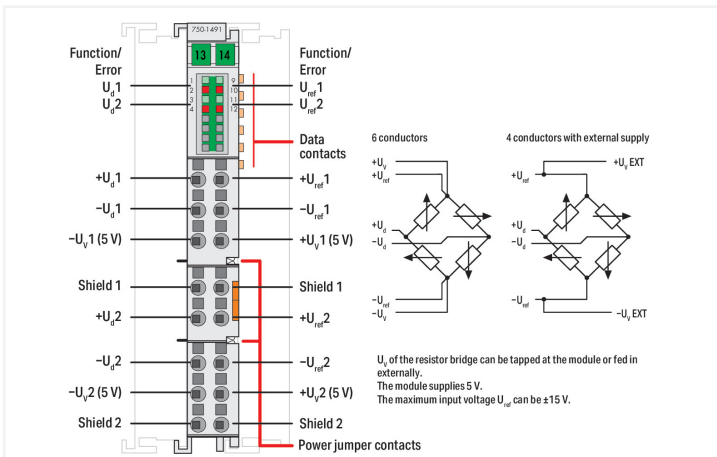
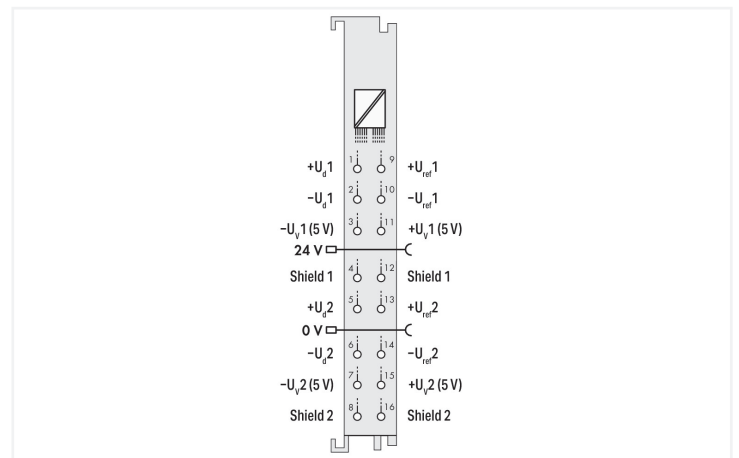
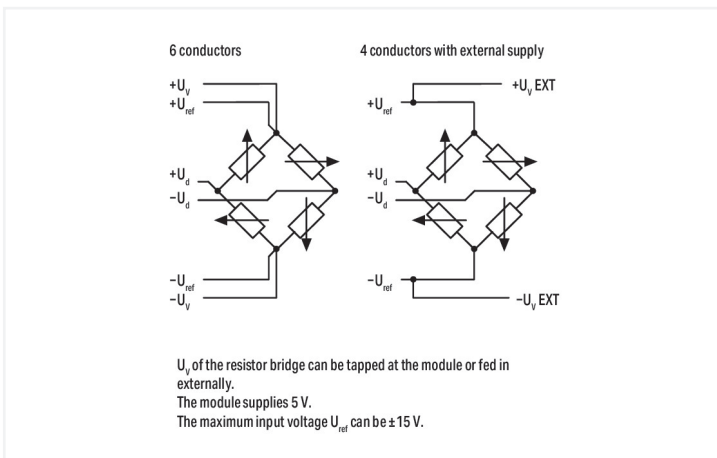
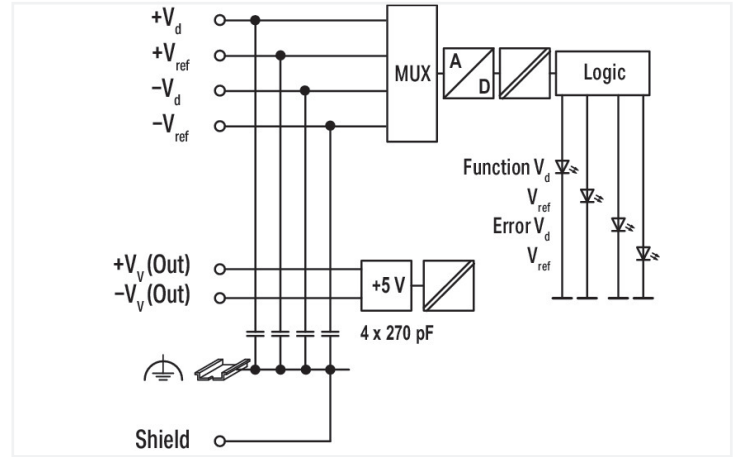


Data Sheet | Item Number: 750-1491
 2-channel analog input; Resistor bridges (strain gauge)

<https://www.wago.com/750-1491>



This analog input module directly connects to two resistor bridges. The bridge voltage U_D and supply voltage U_{ref} of the respective bridge are digitized with a resolution of 16 bits.

The two input channels for the respective resistor bridge are available as two 16-bit values for additional processing. The bridge detuning can be determined from the quotients of the two measurement values U_d and U_{ref} .

Functional galvanic isolation is provided between both channels.

The internal supply voltage is derived from the system supply.

The supply of a separate 24 V field voltage is not necessary. The voltage supplied via the power jumper contacts is looped through to downstream I/O modules.

The shield connects to the DIN-rail.

The module is parameterized via GSD file, **e!COCKPIT** or **WAGO-I/O-CHECK**.

Technical data

Number of analog inputs	2
Total number of channels (module)	2
Signal type	Resistor bridge (strain gauge)
Signal voltage U_D	± 15 mV; ± 30 mV; ± 60 mV; ± 120 mV; ± 240 mV; ± 360 mV
Signal voltage U_{ref}	Internal +5 V; external ± 5 V; ± 10 V; ± 15 V
Resolution [bit]	16 bits
Data width	4 x 16-bit data; 4 x 8-bit control/status (optional)
Internal resistance	> 200 k Ω (U_{ref}), > 1.4 M Ω (U_D)
Conversion time	10 ms (min.)
Measurement error (25 °C)	U_D : ± 30 μ V; U_{ref} : ± 0.05 % of the upper-range value
Measurement error over entire temperature range	± 0.2 % of the upper-range value; with user calibration up to ± 0.05 %
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	70 mA
Current consumption (system and sensor)	200 mA
Isolation	Per UL 61010-2-201: 1.2 kVDC system/channel and channel/channel
Indicators	LED (1, 3, 9, 11) green: Function U_D , U_{ref} ; LED (2, 4, 10, 12) red: Error U_D , U_{ref}

Connection data

Connection technology: inputs/outputs	16 x Push-in CAGE CLAMP®
Connection type 1	Inputs/outputs
Solid conductor	0.08 ... 1.5 mm ² / 28 ... 16 AWG
Fine-stranded conductor	0.25 ... 1.5 mm ² / 22 ... 16 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 mm / 2.717 inches
Depth from upper-edge of DIN-rail	61.8 mm / 2.433 inches

Mechanical data

Mounting type	DIN-35 rail
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Material data

Housing material	Polycarbonate; polyamide 6.6
Fire load	0.837 MJ
Weight	44.9 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 (standing/lying); vertical
Relative humidity (without condensation)	95 %
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	per EN 61000-6-2
EMC emission of interference	per EN 61000-6-3
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43

Commercial data

ETIM 8.0	EC001596
ETIM 7.0	EC001596
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4066966116120
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)	c6eecec8-368f-47fd-870d-33b12daa1fdc
SCIP notification number (Belgium)	e6af0df5-82f9-4d79-b148-ecd400381f0f
SCIP notification number (Bulgaria)	d9e2595f-7764-4b36-bca4-ea53e571a420
SCIP notification number (Czech Republic)	24064782-aad8-4c33-bb89-8b7209554563
SCIP notification number (Denmark)	f02b6737-8f8d-4099-81e7-79ea7939a2e8
SCIP notification number (Finland)	8dfb4e8b-285e-45f9-8194-fc4aef26d8f7
SCIP notification number (France)	1f886934-d49a-4d11-9f05-6211e610d40a
SCIP notification number (Germany)	0f2423d1-52f1-4d97-bd0b-2a7c912590e5
SCIP notification number (Hungary)	1bec5116-e76e-47c2-8ec1-b031bfa428aa
SCIP notification number (Italy)	18d64416-ea71-48a8-9728-230f74d18408
SCIP notification number (Netherlands)	88ab6331-8b28-4e4a-9489-f714c3ea61ca
SCIP notification number (Poland)	e6c10cb7-3b7c-4404-a6ab-af9ec3732d76
SCIP notification number (Romania)	f8509a2c-d98c-4a9c-b779-e6b87e2dd217
SCIP notification number (Sweden)	89cbc01f-8e4d-4d42-a9fd-b91e3da631af

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungs- stelle	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
UL Underwriters Laboratories Inc. (ORDINARY LOCATI- ONS)	-	E175199

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications



Approval	Standard	Certificate Name
DNV DNV GL SE	DNV-CG-0339, Aug. 2021	TAA0000194

Approvals for hazardous areas

PTB
0102



IECEX



Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	-	TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc)
CCCEX CQST/CNEx	-	2020312310000213 (Ex ec IIC T4 Gc)
IECEX TUEV Nord Cert GmbH	-	IECEX TUN 14.0035 X (Ex ec IIC T4 Gc)
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 750-1491



Documentation

Manual

Product Manual 2-Channel Analog Input for Resistor Bridges	V 1.1.0 09.02.2021	pdf 5487.43 KB	
System Manual WAGO I/O System 750/753	V 3.3.3 29.08.2023	pdf 8512.61 KB	
System Manual Series 750/753			

CAD/CAE-Data

CAD data

2D/3D Models 750-1491



CAE data

EPLAN Data Portal 750-1491

