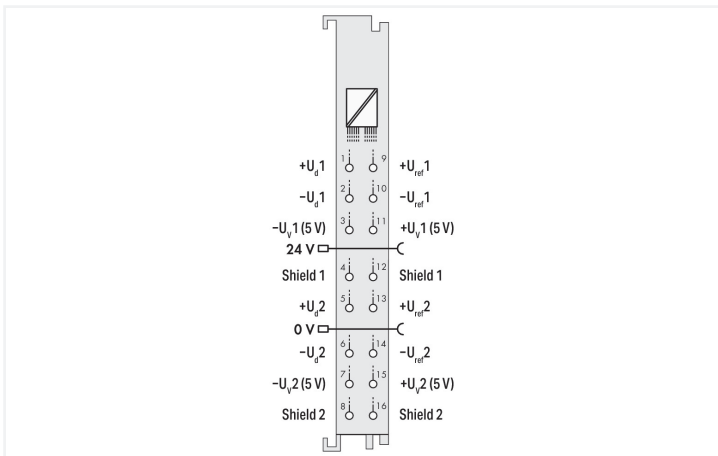
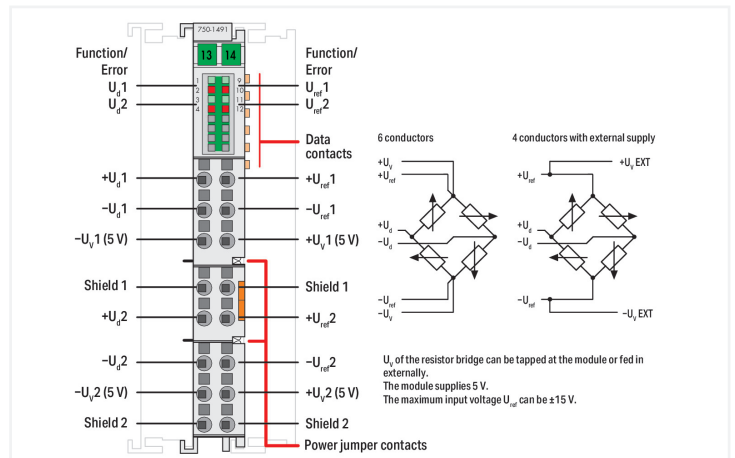
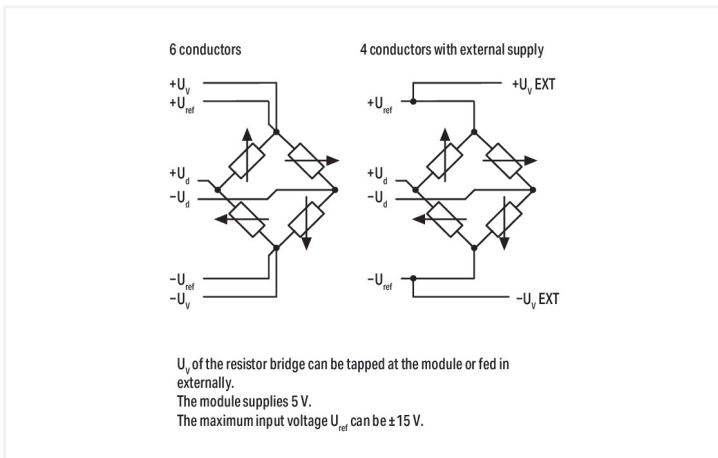
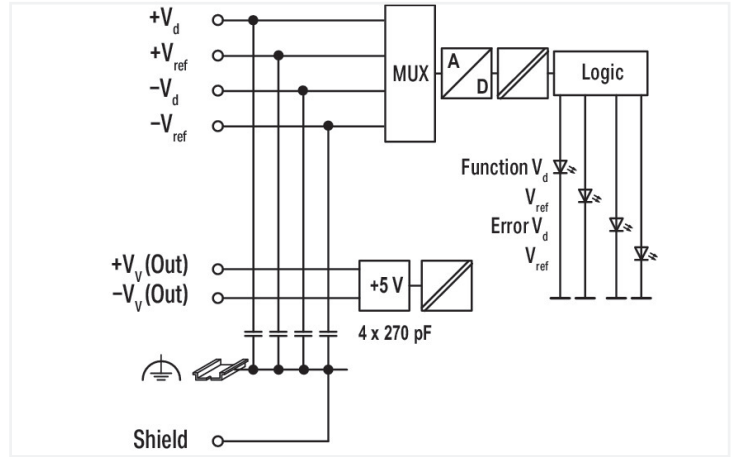


Data Sheet | Item Number: 750-1491
2-channel analog input; Resistor bridges (strain gauge)

<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)
Sensor supply	5 VDC
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: I/O	16 x Push-in CAGE CLAMP®
Connectable conductor materials	Copper
Connection type	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
Pluggable connector	fixed

Material data

Housing material	Polycarbonate; polyamide 6.6
Fire load	0.59 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 left, horizontal right, horizontal top, horizontal bottom, vertical top and vertical bottom
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

PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4066966116120
Customs tariff number	85389099990

Product Classification

UNSPSC	32101619
ETIM 9.0	EC001596
ETIM 10.0	EC001596
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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 GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-AIM750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	-	E175199

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications



Approval	Standard	Certificate Name
DNV DNV GL SE	DNV-CG-0339, Aug.2021	TAA0000194
PRS Polski Rejestr Statków	-	TE/1101/880590/23

Approvals for hazardous areas



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)
INMETRO TÜV Rheinland do Brasil Ltda.	-	TÜV 12.1297 X
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726

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 Series 750/753			↓

CAD/CAE-Data

CAD data

2D/3D Models
750-1491



CAE data

EPLAN Data Portal
750-1491

