

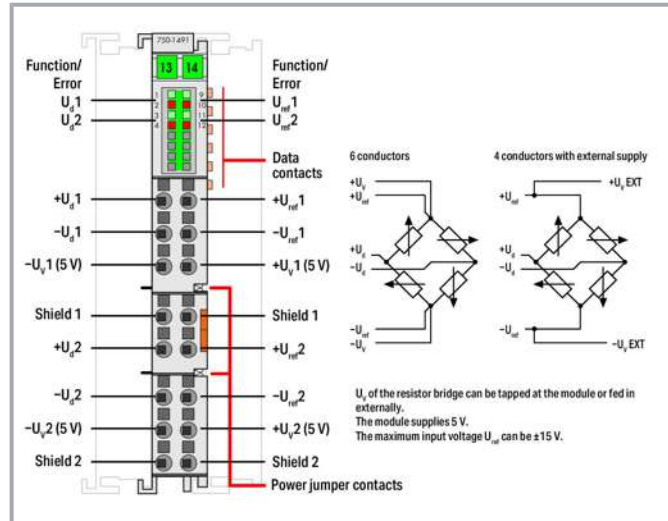
Data sheet | Item number: 750-1491

2-channel analog input; Resistor bridges (strain gauge)

www.wago.com/750-1491



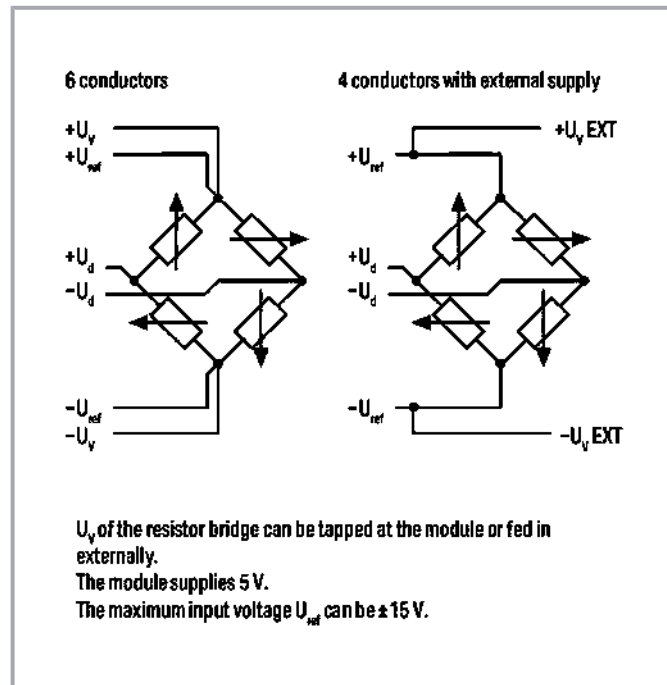
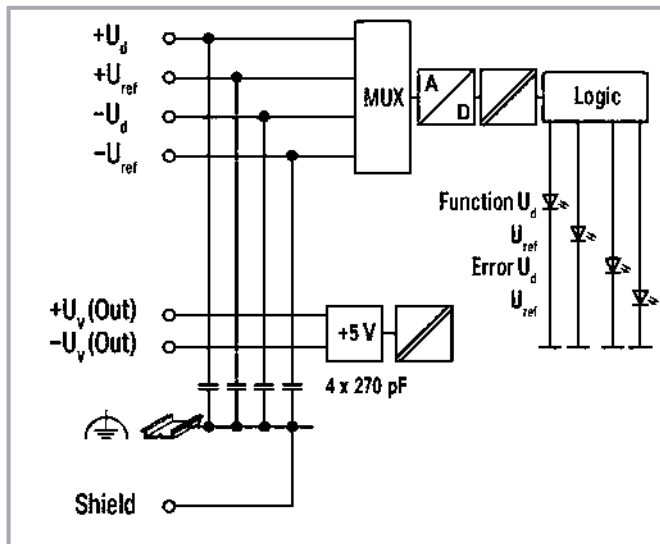
Color:



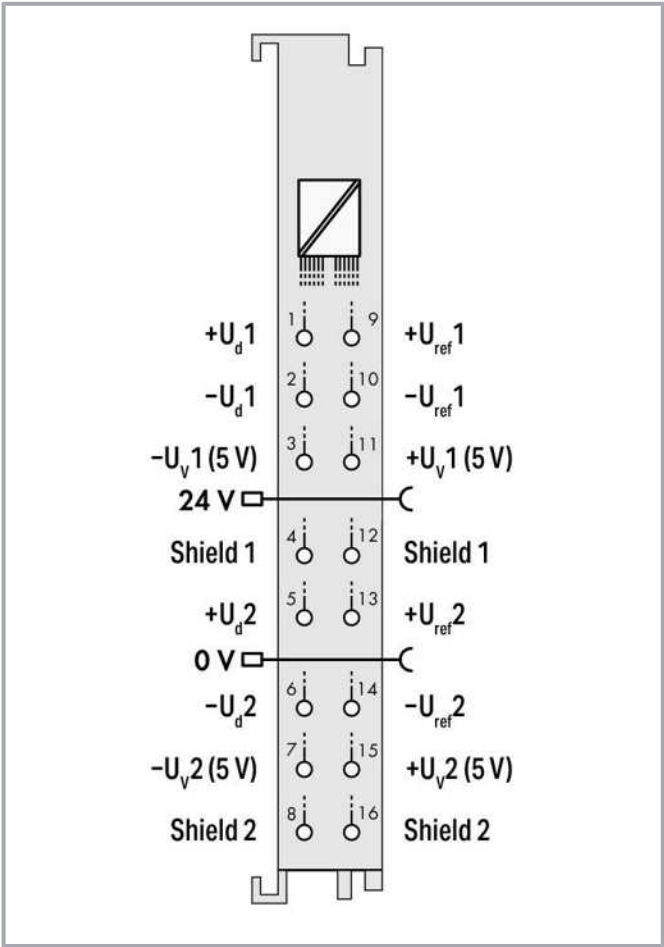
Subject to changes. Please also observe the further product documentation!

WAGO Corporation
Germantown, WI 53022
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
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Item description

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*.

Data
Technical data

Number of analog inputs	2
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Number of Channels	2
Signal type	Resistor bridge (strain gauge)
Supply voltage (sensor)	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
Power consumption (5 V system supply)	70 mA
Power consumption (system and sensor)	200 mA
Isolation	Per UL 61010-2-201: 1.2 kVDC system/channel and channel/channel

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 inch

Physical data

Width	12 mm / 0.472 inch
Height	100 mm / 3.937 inch
Depth	69 mm / 2.717 inch
Depth from upper edge of DIN-rail	61.8 mm / 2.433 inch

Mechanical data

Mounting type	DIN-35 rail
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Material data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6

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Fire load	0.824 MJ
Weight	44.9 g
Conformity marking	CE

Environmental requirements


Surrounding air temperature (operation)	0 ... 55 °C
Surrounding air temperature (storage)	-40 ... 85 °C
Protection type	IP20
Pollution degree (5)	2 per IEC 61131-2
Operating altitude	0 ... 2000 m
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


PU (SPU)	1 Stück
Packaging type	box
Country of origin	DE
GTIN	4055144064452
Customs tariff number	85389099990

Approvals / Certificates

Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP- REM-W43- AIM750


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UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 61010-2-201	E175199 Sec10

Downloads

Documentation

Manual

System Manual WAGO I/O System 750 / 753 Decentralized Automation Technology	V 3.0.2 2021 Apr 27	pdf 6.6 MB	Download
2-Channel Analog Input for Resistor Bridges (Strain Gauges)	V 1.1.0 2021 Feb 9	pdf 5.6 MB	Download
System Manual Series 750/753 Online HTML		URL	Download

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 750-1491 2-channel analog input; Resistor bridges (strain gauge)	URL	Download
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Installation Notes

Product family

Couplers & I/O modules:
[Show all products from the family](#)

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