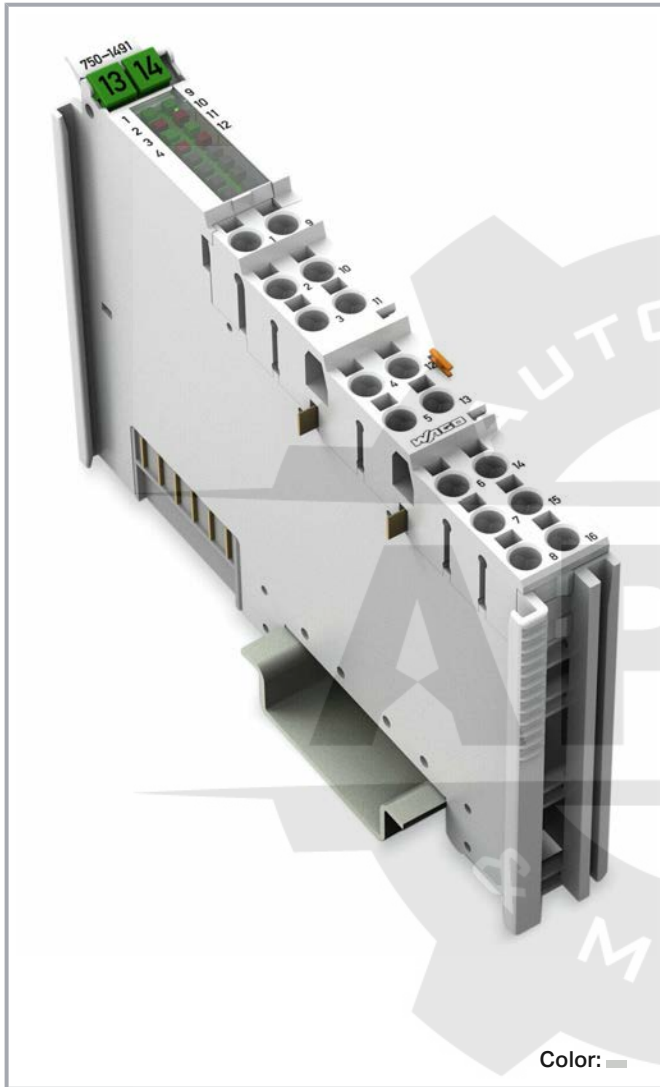


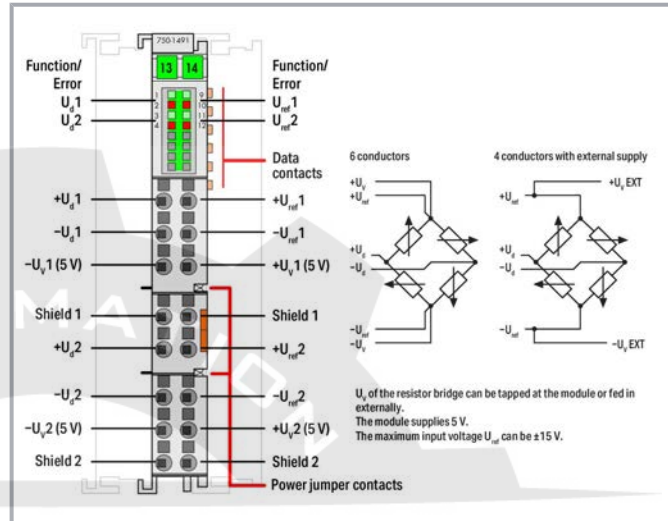
## Data sheet | Item number: 750-1491

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

[www.wago.com/750-1491](http://www.wago.com/750-1491)



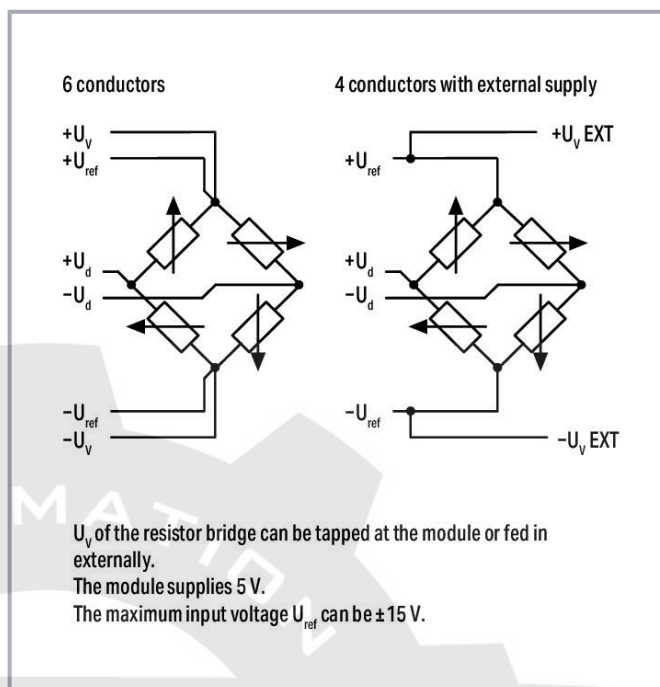
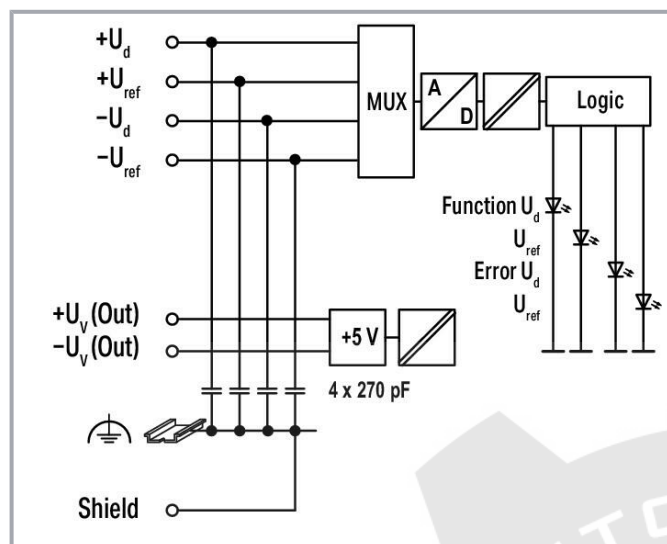
Color:



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

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Email: [info.us@wago.com](mailto:info.us@wago.com) | Web: [www.wago.us](http://www.wago.us)

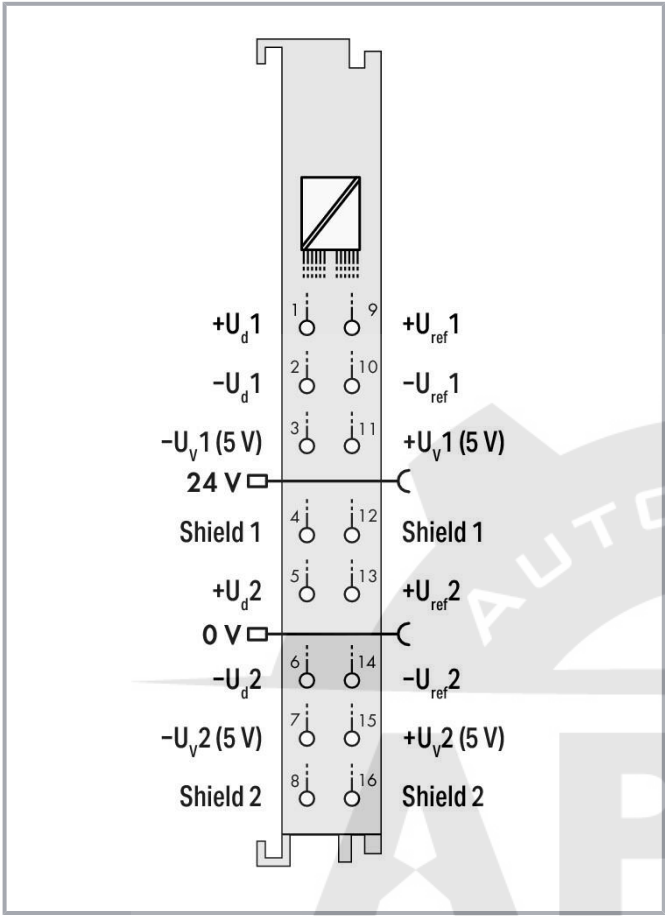
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Item description

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 $U_D$	$\pm 15$ mV; $\pm 30$ mV; $\pm 60$ mV; $\pm 120$ mV; $\pm 240$ mV; $\pm 360$ mV
Signal voltage $U_{ref}$	Internal +5 V; External $\pm 5$ V; $\pm 10$ V; $\pm 15$ V
Resolution [bit]	16 Bit
Data width	4 x 16-bit data; 4 x 8-bit control/status (optional)
Internal resistance	$> 200$ k $\Omega$ ( $U_{ref}$ ), $> 1.4$ M $\Omega$ ( $U_D$ )
Conversion time	10 ms (min.)
Measurement error (25 °C)	$U_D$ : $\pm 30$ $\mu$ V; $U_{ref}$ : $\pm 0.05$ % of the upper-range value
Measurement error over entire temperature range	$\pm 0.2$ % of the upper-range value; with user calibration up to $\pm 0.05$ %
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 <sup>2</sup> / 28 ... 16 AWG
Fine-stranded conductor	0.25 ... 1.5 mm <sup>2</sup> / 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	0.821 MJ
Weight	45.7 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


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

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