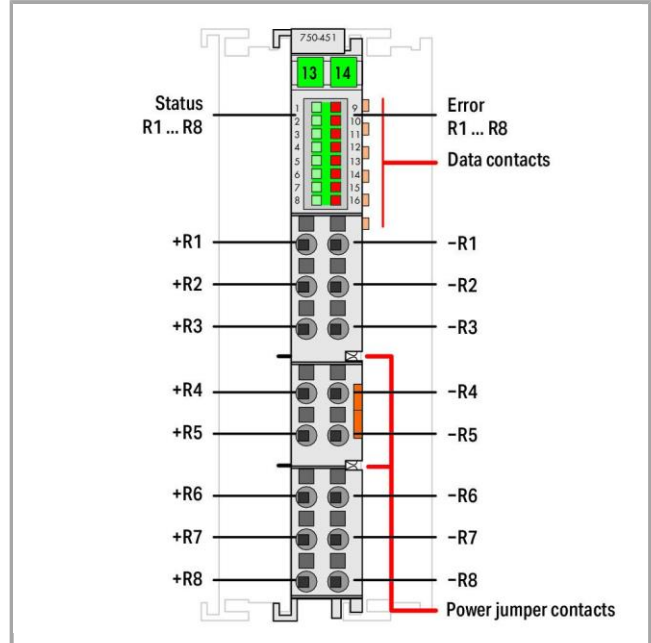
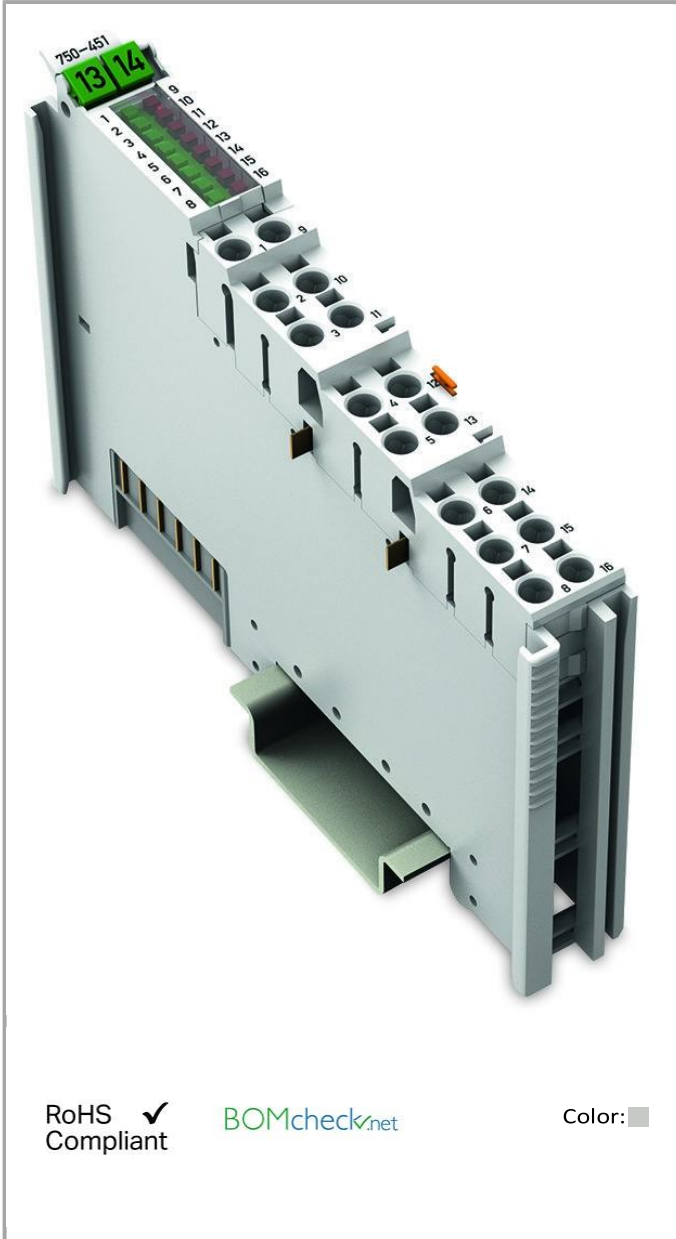
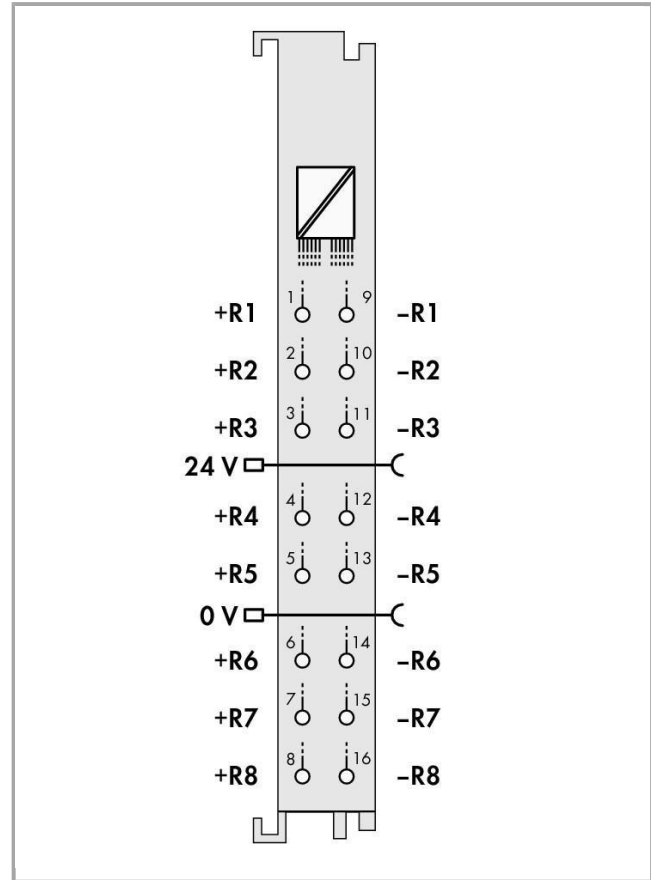
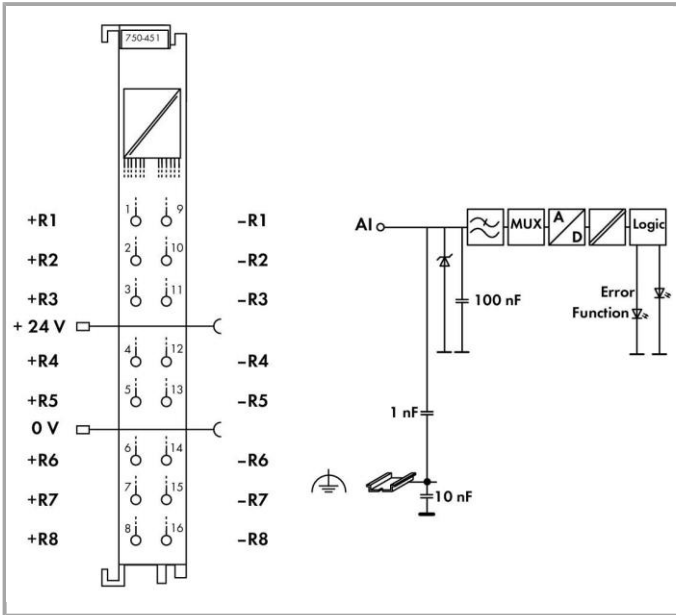


Data sheet | Item number: w750-451

8-channel analog input - resistance; Resistance measurement; Adjustable

<https://www.domat-int.com/en/data-sheets>





Item description

The input module directly connects to Pt and Ni resistance sensors.

Two-wire sensors can be connected.

The module automatically linearizes the entire temperature range. A sensor error (short circuit, wire break or out-of-measurement range) is indicated by a red LED. Unused channels can be deactivated.

The module can be configured via WAGO-I/O-CHECK or GSD files. It features multiple setting options and high accuracy.

Data

Technical Data

Number of analog inputs	8
Total number of channels (module)	8
Type of signal	Resistance measurement Potentiometer positions
Configurable type of signal	yes
Sensor connection	8 × (2-conductor)
Bit width	8 × 16-bit data; 8 × 8-bit control/status (optional)
Resolution (over entire range)	0.1 °C (over the entire range); 0.01 °C (-50 °C ... 150 °C; Pt1000, Ni1000)

Conversion time (typ. ≤)	100 ms
Measuring error (25 °C)	≤ ±0.6 K (Pt100, Pt200, Pt500, Ni100, Ni120); ≤ ±0.2 K (Pt1000, Ni1000); ≤ ±0.3 Ω at resistance measurement
Measuring current (typ.)	≤ 350 μA
Response time (max.)	3 s
Sensor types	Pt100 (default setting), Pt200, Pt500, Pt1000, Ni 100, Ni 120, Ni 1000 (TK6180 + TK5000), Potentiometer 0 Ohm ... 1.2 kOhm, 0 Ohm ... 5 kOhm
Temperature range	-200 ... +850 °C (Pt100, Pt200, Pt500, Pt1000), -60 ... +250 °C (Ni100, Ni1000), -80 ... +260 °C (Ni120)
System supply voltage	5 V DC; via data contacts
Current consumption, system supply (5 V)	110 mA
System and sensor supply voltage	
Field supply voltage	24 V DC (-25 ... +30 %); connection via blade contacts, communication via spring contacts
Isolation	500 V system/field
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2

Connection data

Connection technology: Inputs	16 × Push-in CAGE CLAMP®
Connection type (1)	Inputs
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

Geometrical Data

Width	12 mm / 0.472 inch
Height	69 mm / 2.717 inch
Height from upper-edge of DIN-35 rail	61.8 mm / 2.433 inch
Depth	100 mm / 3.937 inch

Mechanical data

Type of mounting	DIN-35 rail
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Material Data

Color	light gray
Housing material	Polycarbonate, polyamide 6.6
Weight	47.892 g
Conformity marking	CE

Environmental Requirements


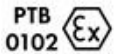

Surrounding air (operating) temperature	0 ... 55 °C
Surrounding air (storage) temperature	-40 ... 85 °C
Protection class	IP20
Degree of pollution (5)	2 per IEC 61131-2
Operating altitude	0 ... 2000 m
Mounting position	horizontal (standing/lying) or vertical
Relative air humidity (no condensation)	95 %
Vibration resistance	4g per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	acc. To EN 61000-6-1, EN 61000-6-2
EMC emission of interference	acc. To EN 61000-6-3
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


Country of origin	DE
GTIN	4017332258388

Approvals / Certificates




Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ATEX TUEV Nord Cert GmbH	IEC 60079-0	IECEX_TUN_14.0035_X
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV_14_ATEX_148929_X
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	ANSI/ISA 12.12.01	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-W43AIM750

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19-HG1821926
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAA0000194
	PRS Polski Rejestr Statków	-	TE/2236/880590/19

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL UL International Netherlands B.V. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

Subject to changes.

Domat control system

Do you have any questions about our products?

WAGO Kontakttechnik GmbH & Co. KG (manufacturer)

We are always happy to take your call at +420 461 100 666.