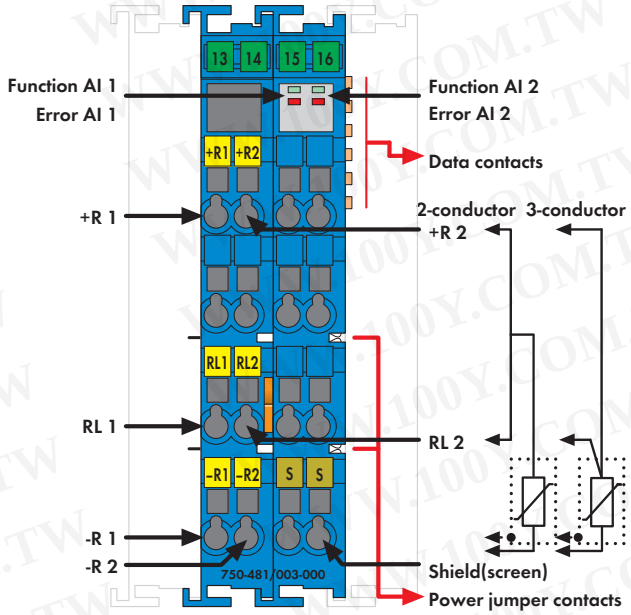
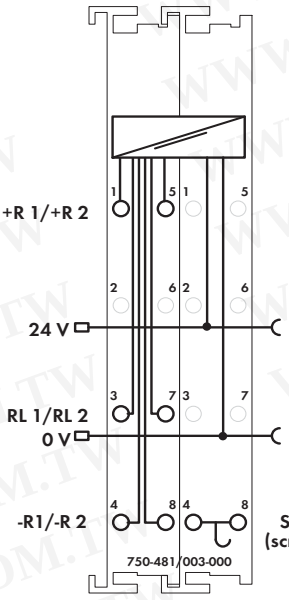
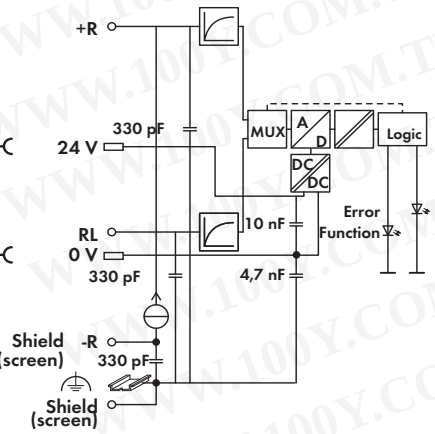
750-481/003-000

2-Channel Analog Input Module for Resistance Sensors, Ex i







Delivery without Mini WSB marker

The analog input module allows the direct connection of Pt and Ni resistance sensors or potentiometers located in the hazardous area of Zone 0+1 and processes their analog signals.
The WAGO-I/O-SYSTEM 750 has to be installed in Zone 2 or in non-hazardous environments. The 24 V supply is derived from the power jumper contacts. The transmitter supply is non-inherently electronically short-circuit-protected.

The shield (screen) is directly connected to the DIN rail.

Indicators:
Green LED (operational status on /off)
Red LED (short circuit, wire breakage, measuring range overflow/underflow)

Each input is electrically isolated from the bus by use of optocouplers.

Note:

Only use the analog input module in connection with the 24 V DC Ex i 750-625 Supply Module (note the power supply instructions on page 27)!
General information (e.g. installation regulations) on explosion protection is available in the WAGO-I/O-SYSTEM 750 manuals!

Description	Item no.	Pack. unit
2AI RTD Ex i	**750-481/003-000**	1

Accessories		Item no.	Pack. unit
Miniature WSB quick marking system,			
	plain	**248-501**	5
	with marking	see pages 256 ... 257	

Explosion Protection

Ex directive	94 / 9 / EG; EN 50014, EN 50020, EN 60079-0, EN 60079-15
Marking	⟨Ex⟩ II 3 (1) GD Ex nA [ia] IIC / IIB T4
Electric circuit, safety relevant data	V_0 = 7.2 V ; I_0 = 5.8 mA; P_0 = 10.5 mW; Characteristic: Linear
Intrinsically safe Ex ia IIB	L_0 = 1 H; C_0 = 240 µF
Intrinsically safe Ex ia IIC	L_0 = 0,9 H; C_0 = 13,5 µF
Intrinsically safe	without consideration of the simultaneousness; with consideration of the simultaneousness see manual
Measuring voltage (open-circuit)	2,5 V

Standards, Guidelines and Approvals

EC EMC guideline	89 / 336 / EWG
EC low voltage guideline	73 / 23 / EWG
⟨Ex⟩ EN 50020	⟨Ex⟩ II 3 (1) GD Ex nA [ia] IIC / IIB T4
Conformity marking	CE
cULus UL 508	
⟨Ex⟩ cULus ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
⟨Ex⟩ EN 60079-15	I M2 / II 3 GD Ex nA IIC T4

Technical Data

No. of inputs	2
Current consumption typ. (internal)	25 mA
Current consumption typ. (24 V)	12 mA
Voltage via power jumper contacts	Supply via DC 24.7 V Ex i supply module (750-625)
Conversion time	150 ... 500 ms (per channel)
Measuring error (25 °C)	< ± 0.2 % of the full scale value
Temperature coefficient	< ± 0.01 % / K of the full scale value
Measuring current (typ.)	< 0,5 mA
Sensor types (Version can be set via WAGO-I/O-Check 2 software)	
RTD	Pt 100 (preset), Pt 200, Pt 500, Pt 1000, Ni 100, Ni 120, Ni 1000
Ohmmeter	1.25 kΩ, 5 kΩ
Potentiometer	1.25 kΩ, 5 kΩ, % linearized
Sensor connection	3-conductor (preset) or 2-conductor
Temperature range	-200 °C ... + 850 °C (Pt); -60 °C ... +250 °C (Ni); -80 °C ... +320 °C (Ni 120)
Resolution (over whole range)	0.1 °C, 0.1 Ω, 0.0049 %
Power consumption P (max.)	0.45 W
Power loss Pv	0.45 W
Isolation	500 V system/supply
Bit width	2 x 16 bits data 2 x 8 bits control / status (optional)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Stripped lengths	8 ... 9 mm / 0.33 in
Width	24 mm
Weight	101.5 g
EMC CE-Immunity to interference	acc. to EN 61000-6-2 (1999)
EMC CE-Emission of interference	acc. to EN 61000-6-4 (2002)

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