

Delivered without miniature WSB markers

The analog input module allows the direct connection of Pt or Ni resistance sensors and potentiometers located in hazardous environments of Zones 0 and 1.

The WAGO-I/O-SYSTEM 750 must be installed either in Zone 2 or in a non-hazardous area. The 24V supply is derived from the module's power jumper contacts.

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

LED indicators:


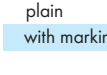
- Green LED (availability ON/OFF)
- Red LED ( short circuit, wire breakage, measuring range overflow/ underflow)

Field and system levels are electrically isolated.

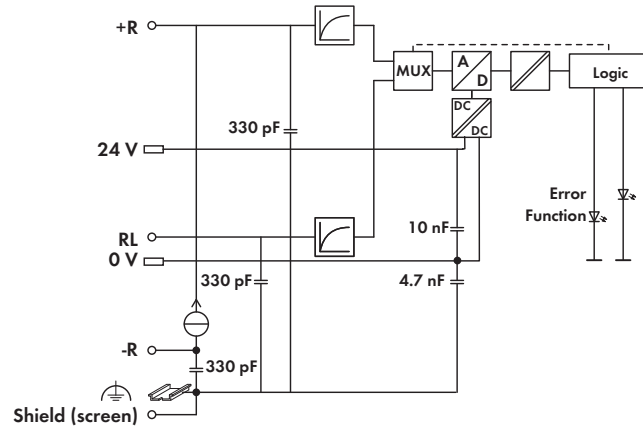
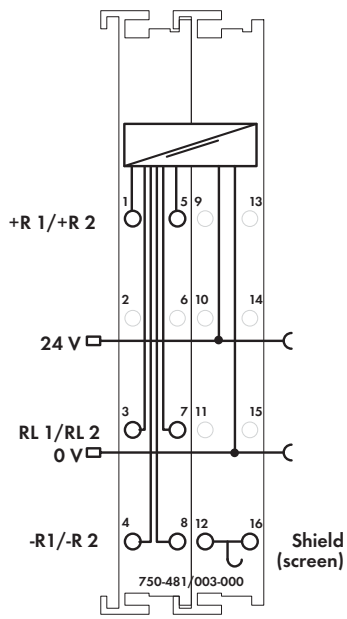
**Note:**

Only use the analog input module in connection with the 24VDC Ex i Supply Module!

General information (e.g., installation regulations) on explosion protection is available in the WAGO-I/O-SYSTEM 750 manuals!

Description	Item No.	Pack. Unit
<b>2AI RTD Ex i</b>	<b>750-481/003-000</b>	1
<b>Accessories</b>		
<b>Miniature WSB Quick marking system</b>		
 plain	<b>248-501</b>	5
 with marking	see Section 11	

Technical Data	
Number of inputs	2
Current consumption, system voltage typ.	
(5 VDC)	25 mA
Voltage via power jumper contacts	24 V DC (provided via Ex-i supply $U_o = \text{max. } 27.3 \text{ V}$ )
Conversion time	150 ... 500 ms (per channel)
Measuring error (25 °C)	$< \pm 0.2 \%$ of the full scale value
Temperature coefficient	$< \pm 0.01 \%$ / K of the full scale value
Measuring current (typ.)	$< 0.5 \text{ mA}$
Types of sensors (version setting made using WAGO-I/O-CHECK software)	
RTD	Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni1000
Resistors	1.2 kΩ, 5 kΩ
Potentiometer setting	0 ... 100 % (1.2 kΩ, 5 kΩ)
Sensor connection	2-wire/3-wire
Temperature range	-200 °C ... + 850 °C (Pt); -60 °C ... +250 °C (Ni); -80 °C ... +320 °C (Ni 120)
Resolution (over entire range)	0.1 °C, 0.1 Ω, 0.0049 %
Current consumption, power jumper contact typ. (24 VDC)	12 mA
Power consumption $P_{max}$	0.45 W
Power loss $P_v$	0.45 W
Isolation	$U_M = 375 \text{ V}$ system/supply
Bit width	2 x 16 bits data 2 x 8 bits control / status (optional)



### Technical Data

Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Width	24 mm
Weight	101.5 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications

### Explosion Protection

Electric circuit, safety-relevant data	$U_o = 7.2\text{ V}$ ; $I_o = 5.8\text{ mA}$ ; $P_o = 10.5\text{ mW}$ ; Characteristic: Linear
Reactances Ex ia IIC	$L_o = 0.9\text{ H}$ ; $C_o = 13.5\text{ }\mu\text{F}$
Reactances Ex ia IIB	$L_o = 1\text{ H}$ ; $C_o = 240\text{ }\mu\text{F}$
Reactances Ex ia IIA	$L_o = 1\text{ H}$ ; $C_o = 1000\text{ }\mu\text{F}$
Reactances Ex ia I	$L_o = 1\text{ H}$ ; $C_o = 1000\text{ }\mu\text{F}$
Reactances	(The above-listed ratings do not account for the coincidental occurrence of capacitances and inductances. For ratings taking the coincidental occurrence of capacitances and inductances into account, see manual)

### Standards, Guidelines and Approvals

Conformity marking	CE
ATEX Guideline 2014/34/EU	EN 60079-0, -7, -11, -26, -31
EC EMC guideline 2014/30/EU	
Korea Certification	KC
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
Ⓔ E175199 Ordinary Locations	I M2 (M1) Ex d [ia Ma] I Mb,
Ⓔ TÜV 12 ATEX 106032 X	II 3 (1) G Ex ec [ia Ga] IIC T4 Gc, II 3 (1) D Ex tc [ia Da] IIIC T135 °C Dc
IEC IECEx TUN 12.0039 X	Ex d [ia Ma] I Mb,
IEC	Ex ec [ia Ga] IIC T4 Gc,
TÜV 14.1911 X	Ex tc [ia Da] IIIC T135 °C Dc Ex d [ia Ma] I Mb, Ex nA [ia Ga] IIC T4 Gc, Ex tc [ia Da] IIIC T135 °C Dc
Ⓔ UL E480271 Hazardous Locations (Zone classified)	Cl I Zn 2 AEx nA [ia Ga] IIC T4 Gc Cl I Zn 2 AEx nA [ia IIIC] IIC T4 Gc Ex nA [ia Ga] IIC T4 Gc X Ex nA [ia IIIC] IIC T4 Gc X
Ⓔ UL E198726 Hazardous Locations (Division classified)	Class I, Div. 2, Group A B C D, T4