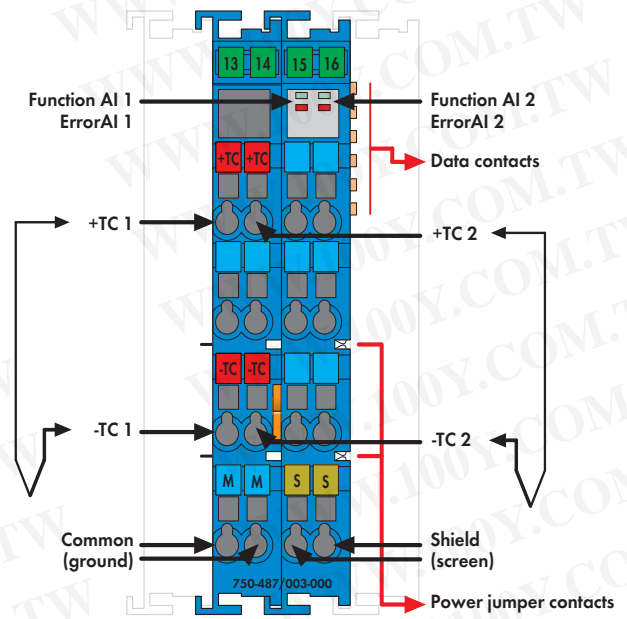


2-Channel Analog Input Module for Thermocouples Ex i



勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



Delivered without miniature WSB markers

The analog input module directly connects two thermocouples operating in hazardous environments of Zones 0 and 1. The WAGO-I/O-SYSTEM 750 must be installed in Zone 2 or in a non-hazardous area. Internal electrical isolation allows operation of grounded sensors. The module automatically linearizes the entire temperature range. Cold junction compensation mitigates the clamping unit offset voltage over the 0-55°C operating range. The 24V supply is derived from the module's power jumper contacts.


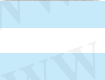
An optocoupler provides electrical isolation between the bus and the field side. The module mode is parameterized via WAGO-I/O-CHECK software.

LED indicators:

- LED green (availability ON/OFF)
- LED red (wire breakage, measuring range overflow/underflow)

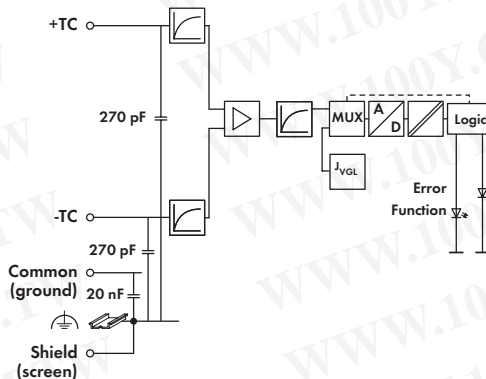
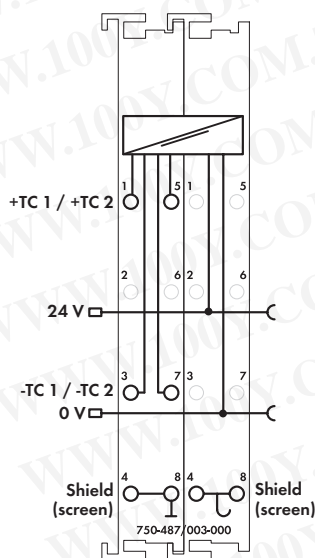
Note:

Only use the analog input module in connection with the 24VDC Ex i Supply Module (note the power supply instructions on page 23)! 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 TC Ex i	750-487/003-000	1
Accessories		
Miniature WSB Quick marking system		
 plain	248-501	5
 with marking	see pages 304 ... 305	

Technical Data	
Number of inputs	2
Current consumption typ. (internal)	50 mA
Voltage via power jumper contacts	Supply via 24 V DC Ex i supply module
Conversion time	≤ 320 ms (both channels)
Measuring error (25°C)	< ± 6 K (voltage input < ± 2 K; cold junction comp. < ± 4 K) (for type K)
Temperature coefficient	< ± 0.2 K / K of full scale value (type K)
Cold junction compensation	internal; at each pair of modules
Resolution (over entire range)	0.1 °C or 0.01 mV for voltage measurement
Internal resistance	≥ 1 MΩ
Measuring range	Thermocouples: Type B: +600°C ... +1,800°C Type E: -200°C ... +1,000°C Type J: -100°C ... +1,200°C Type K: -100°C ... +1,370°C* *(default setting) Type L: -100°C ... +600°C Type N: -100°C ... +1,300°C Type R: 0°C ... +1,700°C Type S: -50°C ... +1,700°C Type T: -100°C ... +400°C Type U: -25°C ... +600°C Voltage sensors: MB1: ± 30 mV MB2: ± 60 mV MB3: ± 120 mV
Power consumption P (max.)	0.29 W
Power loss P _v	0.29 W
Isolation	375 V system/supply

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Technical Data

Bit width	2 x 16 bits data 2 x 8 bits control/status (optional)
Wire connection	CAGE CLAMP [®]
Cross sections	0.08 mm ² ... 2.5 mm ² / 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 (2005)
EMC CE -Emission of interference	acc. to EN 61000-6-4 (2007)

Explosion Protection

Ex directive	EN 61241-0:2006, EN 61241-1:2004, EN 61241-11:2006, EN 60079-0:2006, EN 60079-11:2007, EN 60079-15:2005
Electric circuit, safety relevant data	$U_0 = 14.4 \text{ V}$; $I_0 = 29.1 \text{ mA}$; $P_0 = 52.4 \text{ mW}$; Characteristic: Linear
Intrinsically safe Ex ia IIC	$L_0 = 52 \text{ mH}$; $C_0 = 650 \text{ nF}$
Intrinsically safe Ex ia IIB	$L_0 = 100 \text{ mH}$; $C_0 = 4.0 \mu\text{F}$
Intrinsically safe Ex ia I	$L_0 = 400 \text{ mH}$; $C_0 = 17.9 \mu\text{F}$ without consideration of the simultaneousness; with consideration of the simultaneousness see manual

Standards, Guidelines and Approvals

EC EMC guideline	2004/108/EG
EC low voltage guideline	2006/95/EG
Conformity marking	CE
E TÜV 07 ATEX 554086 X	I (M2) [Ex ia] I, II 3 (1) G Ex nA [ia] IIC T4, II 3 (1) D Ex tD [iaD] A22 IP6X T135°C
E TUN 09.0001X	[Ex ia] I, Ex nA [ia] IIC T4, Ex tD [iaD] A22 IP6X T135°C
E C ANSI/ISA 12.12.01	pending
E UL 508	pending
Shipbuilding	pending