

# 2-Channel Analog Input Module for Thermocouples

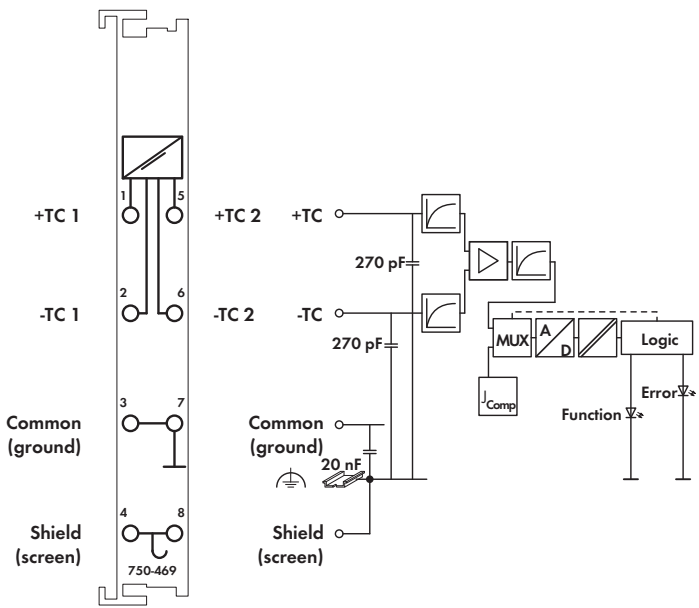
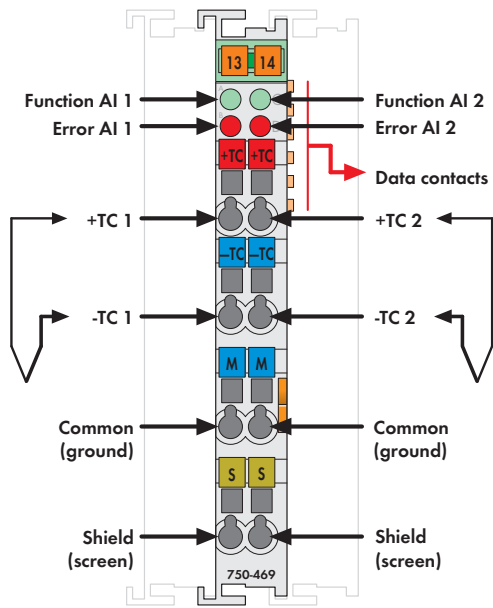


Fig. Series 750 / Technical data see page 28 / Delivery without Mini WSB marker  
Series 750 / 753 marking see pages 16 ... 17 / 18 ... 19

The thermocouple input module allows the direct connection of two thermocouples. The module linearizes the entire temperature range automatically. Cold junction compensation is utilized to compensate for the clamping unit offset voltage over the 0 °C ... 55 °C operating range. A line break is indicated by a red LED. A green LED indicates readiness for operation and trouble-free communication with the buscoupler. The shield (screen) is directly connected to the DIN rail.

- -100 °C ... +1370 °C; type K
- -50 °C ... +1700 °C; type S
- -100 °C ... +400 °C; type T
- -100 °C ... +1200 °C; type J
- -100 °C ... +1000 °C; type E
- -100 °C ... +900 °C; type L

All the listed types of sensors are supported by the configurable variation. Set-up using the WAGO-I/O-Check 2 software. Other variations are available upon request:  
600 °C ... +1800 °C; type B, -100 °C ... +1300 °C; type N,  
0 °C ... +1700 °C; type R, -25 °C ... +600 °C; type U, -120 mV ... +120 mV.

Description	Item no.	Pack. unit
2AI Thermocouple/K/Diagn.	750-469	1
2AI Thermocouple/S/Diagn.	750-469/000-001	1
2AI Thermocouple/T/Diagn.	750-469/000-002	1
2AI ±120mV Diagn.	750-469/000-003	1
2AI Thermocouple/J/Diagn.	750-469/000-006	1
2AI Thermocouple/E/Diagn.	750-469/000-008	1
2AI Thermocouple/L/Diagn.	750-469/000-012	1
2AI Thermocouple/K/Diagn./S5 <sup>1)</sup>	750-469/000-200	1
2AI Thermocouple/J/Diagn./S5 <sup>1)</sup>	750-469/000-206	1
2AI Thermocouple/Free Config.	750-469/003-000	1
2AI Thermocouple/K/Diagn. (without connector)	753-469	1

Accessories	Item no.	Pack. unit
753 Series connector	753-110	25
Coding elements	753-150	100
<b>Miniature WSB quick marking system,</b>		
plain	248-501	5
with marking	see pages 256 ... 257	

Approvals	
Series 750 and 753	
Conformity marking	CE
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
Series 750	
EN 60079-15	I M2 / II 3 GD Ex nA IIC T4
Marine applications	see "Approvals Overview" in section 1

Technical Data	
No. of inputs	2
Voltage supply	via system voltage DC/DC
Current consumption max. (internal)	65 mA
Sensor types	Type K; -100 °C ... +1370 °C (basic variation), optional variations available for type J, B, E, N, R, S, T, U and L
Internal resistance	1 MΩ
Cold junction compensation	at each pair of terminal blocks
Resolution (over whole range)	0.1 °C
Conversion time	320 ms (both channels)
Measuring error (25 °C)	< ± 6 K (volt. input < ± 2 K, cold junct. < ± 4 K)
Temperature coefficient	< ± 0.2 K/K
Isolation	500 V system/supply
Bit width	2 x 16 bits data
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Stripped lengths (750 / 753 Series)	8 ... 9 mm / 0.33 in
	9 ... 10 mm / 0.37 in
Width	12 mm
Weight	53.5 g
EMC CE-Immunity to interference	acc. to EN 50082-2 (1996)
EMC CE-Emission of interference	acc. to EN 50081-1 (1993)
EMC marine applications -	
Immunity to interference	acc. to Germanischer Lloyd (2003)
EMC marine applications -	
Emission of interference	acc. to Germanischer Lloyd (2003)