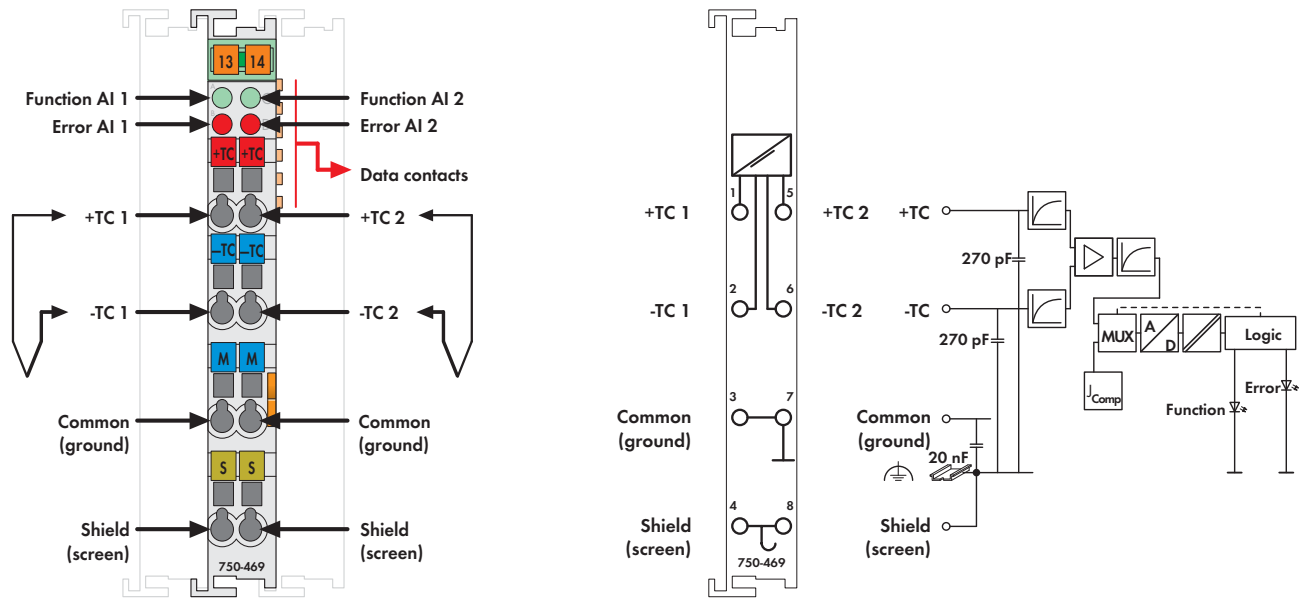


# 2-Channel Analog Input Module for Thermocouples



**Fig. 750 Series**  
Delivered without miniature WSB markers

The thermocouple input module allows the direct connection of two thermocouples. The module automatically linearizes the entire temperature range. Cold junction compensation is utilized to compensate for the clamping unit offset voltage over the 0-55 °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 ... +400 °C; type T
- -100 °C ... +1200 °C; type J
- -100 °C ... +1000 °C; type E
- -100 °C ... +900 °C; type L

All listed sensor types 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.

- -100 °C ... +1370 °C; type K
- -50 °C ... +1700 °C; type S

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
2AI Thermocouple/Free Config. (without connector)	753-469/003-000	1

<sup>1)</sup> Data format for S5 control with FB 251

### Approvals

Conformity marking	CE
Korea Certification	KC
Marine applications (versions upon request)	ABS, BV, DNV, GL, KR, LR, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb, II 3 G Ex nA IIC T4 Gc, II 3 D Ex tc IIIC T135 °C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb, Ex nA IIC T4 Gc, Ex tc IIIC T135 °C Dc
Permissible ambient temperature	0 °C ... +60 °C

### Technical Data

Number of inputs	2
Power supply	via system voltage DC/DC
Max. current consumption (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 entire range)	0.1 °C
Conversion time	320 ms (each channel)
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 2 x 8 bits control/status (optional)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> / AWG 28 ... 14
Strip lengths, 750/753 Series	8 ... 9 mm / 0.33 in 9 ... 10 mm / 0.37 in
Width	12 mm
Weight	38.2 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

Accessories	Item No.	Pack. Unit
753 Series Connectors	753-110	25
Coding elements	753-150	100
Miniature WSB Quick marking system	see Section 11	