

2-Channel Analog Input Module for RTDs

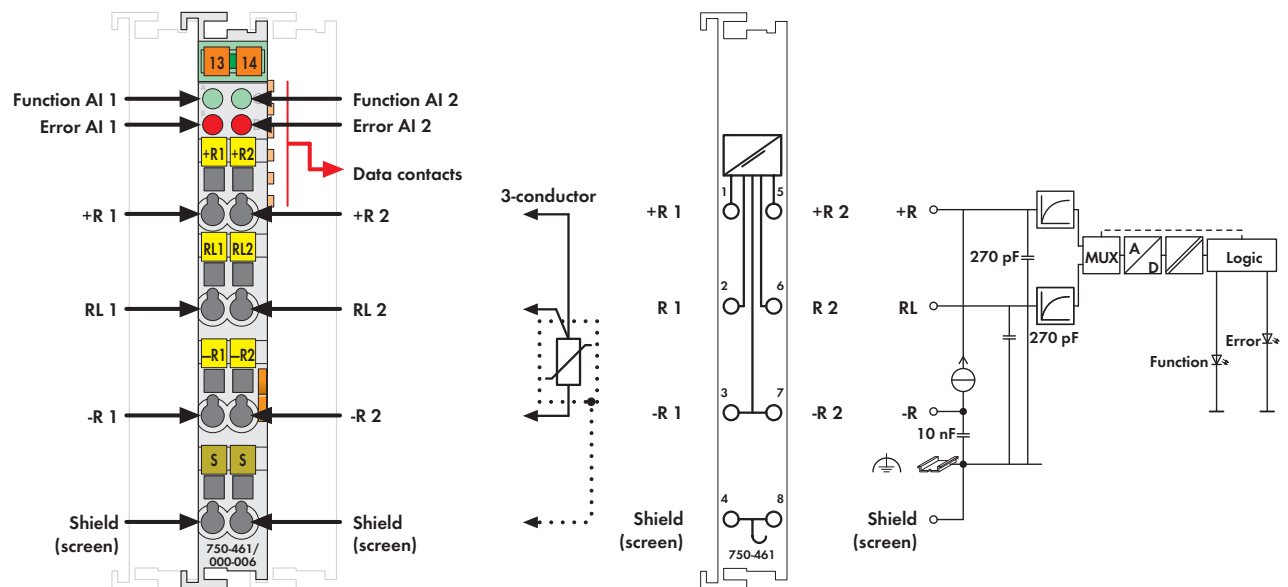


Fig. 750 Series/Technical data see page 24/Delivered without miniature WSB markers
 750/753 Series marking see pages 10 ... 11 / 12 ... 13

The input module directly connects to Pt resistance sensors. The connection of 2- or 3-conductor sensors is possible. The module automatically linearizes the entire temperature range. A sensor error is indicated by a red LED. A green LED indicates readiness for operation and error-free communication with the buscoupler. The shield (screen) is directly connected to the DIN rail.

All listed sensor types are supported by the configurable variation. Set-up via WAGO-I/O-CHECK software.

Technical data for the 750-461/020-000 model:

- Current consumption max (internal): 65 mA
- Sensor types: NTC 20 kOhm
- Temperature range: -30 °C ... +130 °C
- Measuring error: 0.5 K ... 3.0 K (dependent on temperature)
- Temperature coefficient: < +/- 0.002 %/K of full scale value
- Measured current typ.: 0.05 mA at 25 °C

Description	Item No.	Pack. Unit
2AI Pt 100/RTD	750-461	10 ¹⁾
2AI Resistance Measur. 10R-1k2	750-461/000-002	10 ¹⁾
2AI Pt 1000/RTD	750-461/000-003	10 ¹⁾
2AI Ni 100/RTD	750-461/000-004	10 ¹⁾
2AI Ni 1000 TK6180/ RTD	750-461/000-005	10 ¹⁾
2AI Resistance Measur. 10R-5k0	750-461/000-007	10 ¹⁾
2AI Ni 1000 TK5000/ RT	750-461/000-009	1
2AI Pt 100/RTD S5 ²⁾	750-461/000-200	10 ¹⁾
2AI Pt 100/free configurable	750-461/003-000	10 ¹⁾
2AI NTC 20k	750-461/020-000	1
Differing technical data see text		
2AI Pt 100/RTD/T	750-461/025-000	1
[Operating temperature -20 °C ... +60 °C]		
2AI Pt 100/RTD (without connector)	753-461	1
2AI Pt 100/free configurable (without connector)	753-461/003-000	1
¹⁾ Also available individually		
²⁾ Data format for S5 control with FB 251		
Approvals Also see "Approvals Overview" in Section 1		
Conformity marking	CE	
Shipbuilding (versions upon request)	ABS, BV, DNV, GL, KR, LR*, NKK*, PRS*, RINA*	
	*753 Series, pending	
UL 508		
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4	750-461, -/00xxx, -461/020-000
		753-461, -461/...
EN 60079-0, -15	I M2 / II 3 GD Ex nA IIC T4	750-461/0x0-xxx
EN 61241-0, -1		753-461, -461/...
EN 60079-0, -11, -15	I M2 Ex d I	750-461*
EN 61241-0, -1, -11	II 3 G Ex nA IIC T4	750-461*
	II 3 D Ex tD A22 IP6X T135 °C	750-461*
* Permissible operating temperature: 0 °C ... +60 °C		

Technical Data	
Number of inputs	2
Power supply	via system voltage DC/DC
Current consumption typ. (internal)	80 mA
Sensor types	Pt 100 (basic variation), optional variations available for Pt 200, Pt 500, Pt 1000, Ni 100, Ni 120, Ni 1000, resistance measuring
Sensor connection	3-wire connection (factory preset) or 2-wire
Temperature range	-200 °C ... +850 °C (Pt) -60 °C ... +250 °C (Ni)
Resolution (over entire range)	0.1 °C
Conversion time	320 ms (per channel)
Response time (max.)	4 s
Measuring error (25 °C)	< ± 0.2 % of the full scale value
Temperature coefficient	< ± 0.01 % / K of the full scale value
Isolation	500 V system/supply
Measuring current (typ.)	0.5 mA
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, 750/753 Series	8 ... 9 mm / 0.33 in 9 ... 10 mm / 0.37 in
Width	12 mm
Weight	52.5 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)
EMC: marine app. - immunity to interference	acc. to Germanischer Lloyd (2003)
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Accessories	753 Series Connectors, Coding elements Miniature WSB Quick marking system