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750-461 / 753-461

2-Channel Analog Input Module for RTDs

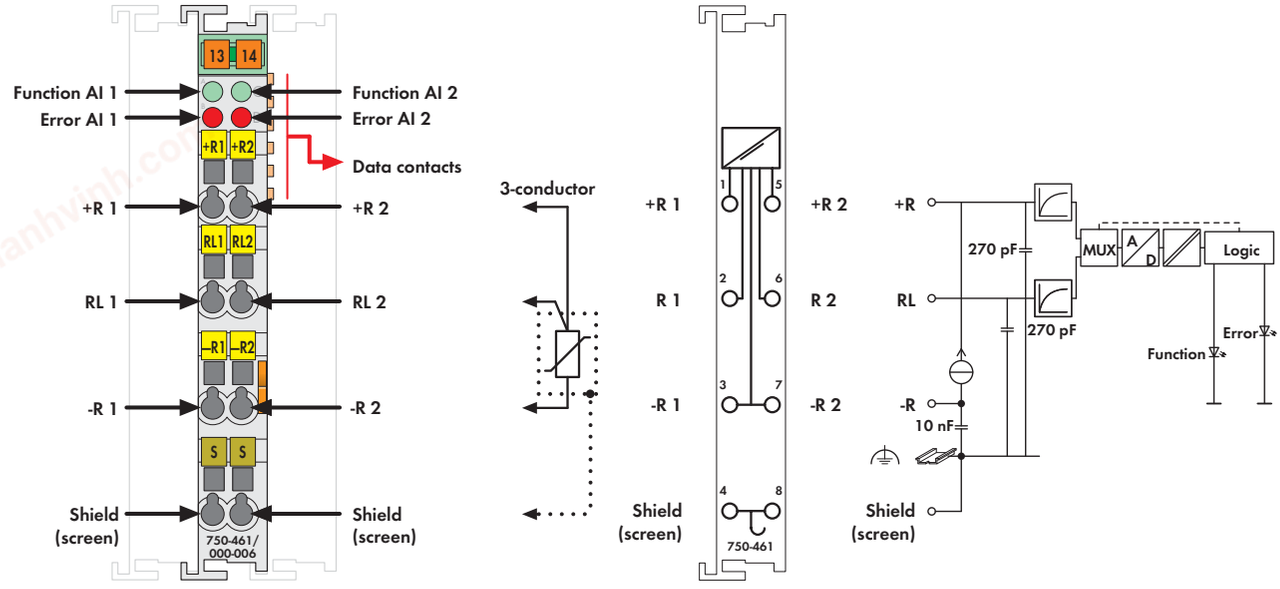


Fig. 750 Series/Technical data see page 24/Delivered without miniature WSB markers
750/753 Series marking see pages 10 ... 11 / 12 ... 13

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	
cULus UL 508		
cULus ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4	750-461,-/00x-xxx, -461/020-000 753-461, -461/...
EN 60079-0, -15 EN 61241-0, -1	I M2 / II 3 GD Ex nA IIC T4	750-461/0x0-xxx 753-461, -461/...
EN 60079-0, -11, -15 EN 61241-0, -1, -11	I M2 Ex d I II 3 G Ex nA IIC T4 II 3 D Ex tD A22 IP6X T135°C	750-461* 750-461* 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)
EMC: marine app. - emission of interference	acc. to Germanischer Lloyd (2003)
Accessories	**753 Series Connectors, Coding elements**
	Miniature WSB Quick marking system