



Fig. 750 Series
Delivered without miniature WSB markers

The RTD (resistive temperature device) input module directly connects Pt or Ni 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 via 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 2 software.

Other variations are available upon request:
Pt 100; Pt 200; Pt 500; Pt 1000; temperature range -200 °C ... + 850 °C;
Ni 100; Ni 100; temperature range -60 °C ... +250 °C and resistance measuring.
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	1
2AI Resistance Measur. 10R-1k2	750-461/000-002	1
2AI Pt 1000/RTD	750-461/000-003	1
2AI Ni 100/RTD	750-461/000-004	1
2AI Ni 1000 TK6180/ RTD	750-461/000-005	1
2AI Resistance Measur. 10R-5k0	750-461/000-007	1
2AI Ni 1000 TK5000/ RT	750-461/000-009	1
2AI Pt 100/RTD S5 ¹⁾	750-461/000-200	1
2AI Pt 100/free configurable	750-461/003-000	1
2AI NTC 20k	750-461/020-000	1
Differing technical data see text		
2AI Pt 100/RTD/T	750-461/025-000	1
Extended temperature range: -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⁾ Data format for S5 control with FB 251		
Approvals		
Conformity marking	CE	
Korea Certification	KC ¹⁾	
Marine applications (versions upon request)	ABS, BV, DNV, GL, KR, LR, NKK, 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		
¹⁾ Does not apply to 750-461/020-000		

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 mm ² ... 2.5 mm ² / AWG 28 ... 14	
Strip lengths, 750/753 Series	8 ... 9 mm / 0.33 in 9 ... 10 mm / 0.37 in	
Width	12 mm	
Weight	52.5 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		
753 Series Connectors	753-110	25
Coding elements	753-150	100
Miniature WSB Quick marking system	see Section 11	