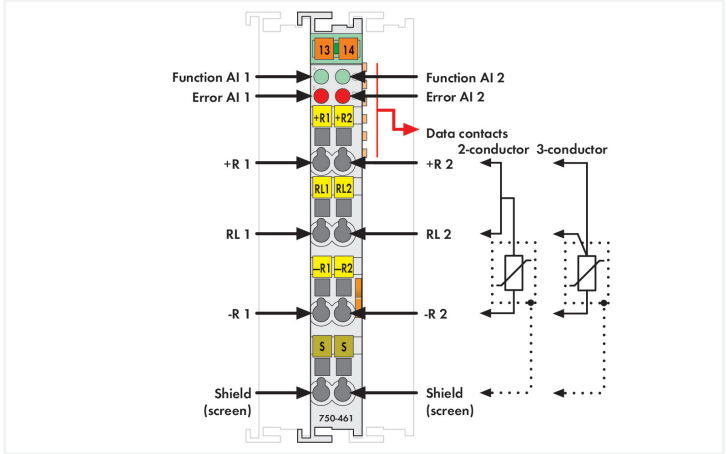
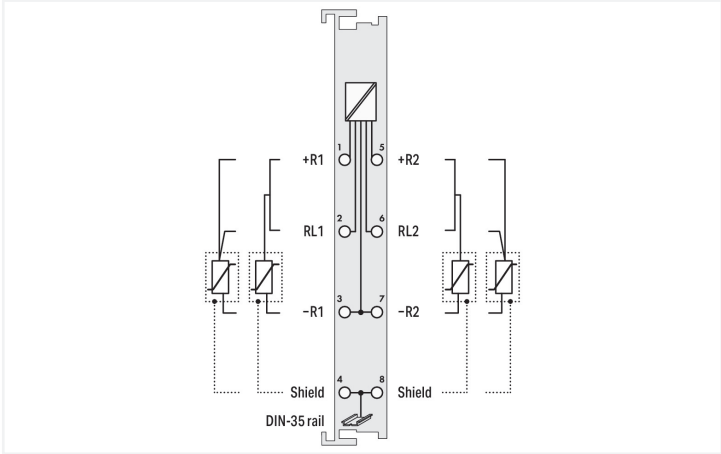
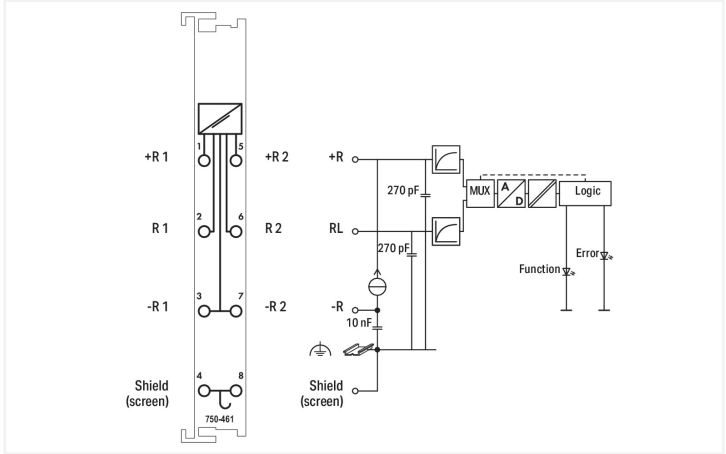
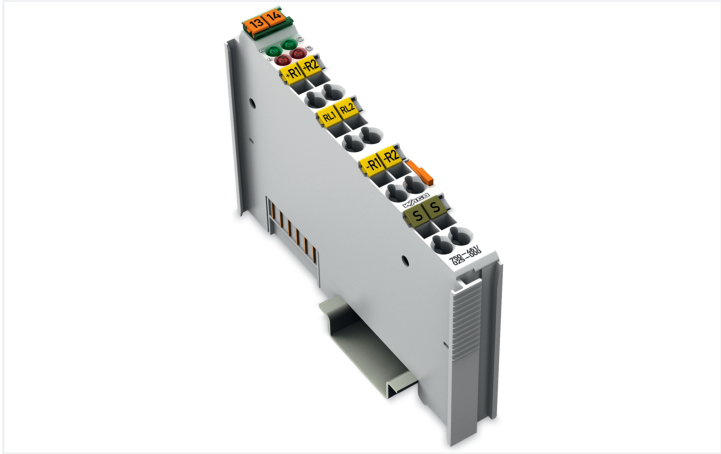


Data Sheet | Item Number: 750-461/025-000
2-channel analog input; For Pt100/RTD resistance sensors; Adjustable; Ext. Temperature

<https://www.wago.com/750-461/025-000>



This analog input module directly connects to Pt resistance sensors.
Two- or three-wire sensors can be connected.
The module automatically linearizes the entire temperature range. A sensor error (short circuit, line break or measurement range overflow) is indicated by a red LED.
A green LED indicates readiness for operation and error-free communication with the coupler.
The shield directly connects to the DIN-rail.

Technical data	
Number of analog inputs	2
Total number of channels (module)	2
Signal type	Resistance measurement
Sensor connection	2 x (2-wire, 3-wire)
Data width	2 x 16-bit data; 2 x 8-bit control/status (optional)
Resolution (over entire range)	0.1 °C
Conversion time (typ.)	320 ms
Measurement error (reference temperature)	25 °C
Measurement error, deviation (max.) from the upper-range value	0.2 %
Temperature error (max.) of the upper-range value	0.01 %/K
Measuring current (typ.)	0.5 mA
Response time (max.)	4 s
Sensor types	Pt100
Temperature range	-200 ... +850 °C
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	80 mA



Technical data	
Isolation	500 V system/field
Indicators	LED (A, C) green: Function AI 1, AI 2; LED (B, D) red: Error AI 1, AI 2
Connection data	
Connection technology: I/O	8 x CAGE CLAMP®
Connectable conductor materials	Copper
Connection type	Inputs/outputs
Solid conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Physical data	
Width	12 mm / 0.472 inches
Height	100 mm / 3.937 inches
Depth	69.8 mm / 2.748 inches
Depth from upper-edge of DIN-rail	62.6 mm / 2.465 inches
Mechanical data	
Mounting type	DIN-35 rail
Pluggable connector	fixed
Material data	
Housing material	Polycarbonate; polyamide 6.6
Fire load	1.422 MJ
Weight	52 g
Conformity marking	CE
Environmental requirements	
Ambient temperature (operation)	-20 ... +60 °C
Ambient temperature (storage)	-40 ... +85 °C
Protection type	IP20
Pollution degree	2 per IEC 61131-2
Operating altitude	0 ... 2000 m / 0 ... 6562 ft
Mounting position	Horizontal left, horizontal right, horizontal top, horizontal bottom, vertical top and vertical bottom
Relative humidity (without condensation)	95 %
Relative humidity (with condensation)	Short-term condensation per Class 3K6/IEC EN 60721-3-3 and E-DIN 40046-721-3, accounting for a temperature range of -20 to +60 °C (except for wind-driven precipitation, water and ice formation)
Vibration resistance	4g per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	per EN 61000-6-2, marine applications
EMC emission of interference	per EN 61000-6-4, marine applications
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm



Commercial data	
Product Group	15 (I/O System)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454976446
Customs tariff number	85389099990

Product Classification	
UNSPSC	32151705
eCl@ss 10.0	27-24-26-01
eCl@ss 9.0	27-24-26-01
ETIM 9.0	EC001596
ETIM 8.0	EC001596
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
CAS-No.	1303-86-2 1317-36-8 7439-92-1
REACH Candidate List Substance	Diboron trioxide Lead Lead monoxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(c)-I
SCIP notification number (Austria)	e7d05999-d8a2-4ed3-ac32-6a0021213622
SCIP notification number (Belgium)	4ab30104-7648-436e-b5fd-d4e789766dd6
SCIP notification number (Bulgaria)	e18797bd-46e4-4016-a1de-9dcd8d21fb96
SCIP notification number (Czech Republic)	9656bf64-c1e7-4f59-8c30-df089a415cfb
SCIP notification number (Denmark)	04e94fa1-f2dc-42ae-be44-a06ddc0d63d0
SCIP notification number (Finland)	70d7e7ab-dacc-46d8-abde-373dd32cc89f
SCIP notification number (France)	ca556a15-25de-4a95-b240-2449679a2b99
SCIP notification number (Germany)	529ef4c7-a9e9-44a4-8b51-a78dc55431fd
SCIP notification number (Hungary)	c92b1323-db37-47fe-b570-275bf46d8785
SCIP notification number (Italy)	1dd80aa7-e9b3-4ee5-abc1-530a0f59a4c3
SCIP notification number (Netherlands)	44b018b5-9f38-4bc0-b767-8e7b89f8f078
SCIP notification number (Poland)	d4ac3ae4-0384-4d36-87f7-37985f621010
SCIP notification number (Romania)	7c010317-87ba-4c8d-97d5-def8b9821c61
SCIP notification number (Sweden)	fa9fb374-5d5a-458d-9c2c-349551a2357f

Approvals / Certificates

General approvals

  		
Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-AIM750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-



Approvals for marine applications

			
Approval	Standard	Certificate Name	
ABS American Bureau of Ship- ping	-	22-2227356-PDA	
BSH Bundesamt fuer See- schifffahrt und Hydrogra- phie	-	1104	
LR Lloyds Register	-	LR2475997TA	
PRS Polski Rejestr Statków	-	TE/1102/880590/23	

Approvals for hazardous areas

							
Approval	Standard	Certificate Name					
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc)					
CCCEX CQST/CNEx	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)					
IECEx TUEV Nord Cert GmbH	IEC 60079-0	IECEx TUN 14.0035 X (Ex ec IIC T4 Gc)					
INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079-0	TÜV 12.1297 X					
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX003X_ec					
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726					

Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance	
750-461/025-000	

Documentation

Manual			
Product Manual 2-channel Analog Input for Resistance Sensors	V 1.4.1	pdf 2916.84 KB	
System Manual Series 750/753			

System Description			
750/753 Series I/O-System – General Product Information		pdf 953.35 KB	
Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 770.48 KB	

Bid Text			
750-461/025-000	19.02.2019	xml 4.72 KB	
750-461/025-000	20.10.2017	doc 28.50 KB	

Instruction Leaflet			
CCC Ex (Additional information)	26.04.2023	pdf 159.76 KB	



CAD/CAE-Data	
CAD data 2D/3D Models 750-461/025-000 ↓	CAE data EPLAN Data Portal 750-461/025-000 ↓
	ZUKEN Portal 750-461/025-000 ↓

Device Files	
Device Driver WAGO USB Service Ka- bel Treiber / Serie 750 und 857 6.5.3.0 10.09.2014 zip 4721.96 KB ↓	

1 Compatible Products
1.1 Optional Accessories
1.1.1 DIN-rail
1.1.1.1 Mounting accessories

 Item No.: 210-196 Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslopped; similar to EN 60715; silver-colored	 Item No.: 210-198 Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; copper-colored	 Item No.: 210-508 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slopped; galvanized; similar to EN 60715; silver-colored	 Item No.: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slopped; similar to EN 60715; silver-colored
 Item No.: 210-506 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslopped; galvanized; similar to EN 60715; silver-colored	 Item No.: 210-114 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslopped; similar to EN 60715; silver-colored	 Item No.: 210-118 Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; silver-colored	 Item No.: 210-115 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; according to EN 60715; "Hole width 18 mm; silver-colored
 Item No.: 210-112 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; according to EN 60715; "Hole width 25 mm; silver-colored	 Item No.: 210-504 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; galvanized; according to EN 60715; silver-colored	 Item No.: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslopped; according to EN 60715; silver-colored	 Item No.: 210-505 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslopped; galvanized; according to EN 60715; silver-colored

1.1.2 Marking
1.1.2.1 Group marker carrier
 Item No.: 750-106 Group marker carrier



1.1.2.2 Marker

 Item No.: 750-100 Marker card; as a DIN A4 sheet; plain	 Item No.: 2009-145/000-006 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue	 Item No.: 2009-145/000-007 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray	 Item No.: 2009-145/000-023 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green
 Item No.: 2009-145/000-012 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange	 Item No.: 2009-145/000-005 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red	 Item No.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet	 Item No.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white
 Item No.: 2009-145/000-002 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow	 Item No.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue	 Item No.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray	 Item No.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green
 Item No.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green	 Item No.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange	 Item No.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red	 Item No.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet
 Item No.: 248-501 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white	 Item No.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow		

1.1.2.3 Marker carrier

 Item No.: 750-103 Group marker carrier

1.1.3 Shield termination

1.1.3.1 Shield clamping saddles

 Item No.: 790-108 Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm	 Item No.: 790-208 Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm	 Item No.: 790-116 Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm	 Item No.: 790-216 Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm
 Item No.: 790-124 Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm	 Item No.: 790-220 Shield clamping saddle; 30 mm wide; 6 ... 20 mm	 Item No.: 790-140 Shield clamping saddle; diameter of compatible conductor	



1.1.4 System enclosure

1.1.4.1 System enclosure

 Item No.: 850-825 IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20	 Item No.: 850-826 IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	 Item No.: 850-827 IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	 Item No.: 850-828 IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip
 Item No.: 850-826/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	 Item No.: 850-827/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	 Item No.: 850-828/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	 Item No.: 850-834 IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20
 Item No.: 850-835 IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	 Item No.: 850-836 IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	 Item No.: 850-814/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate	 Item No.: 850-815/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate
 Item No.: 850-816/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate	 Item No.: 850-817/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate		