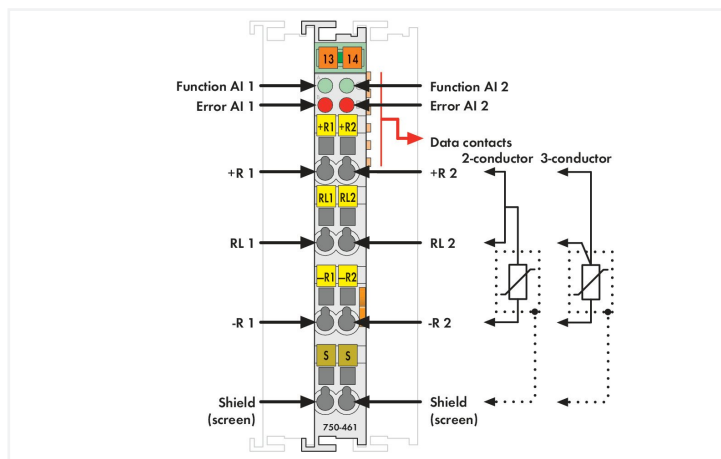
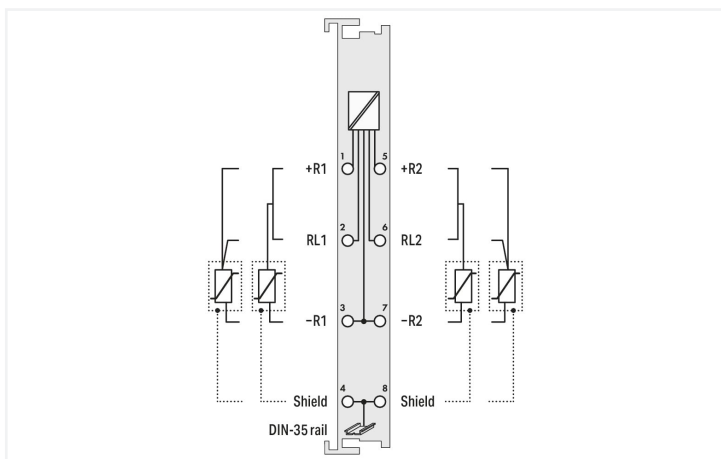
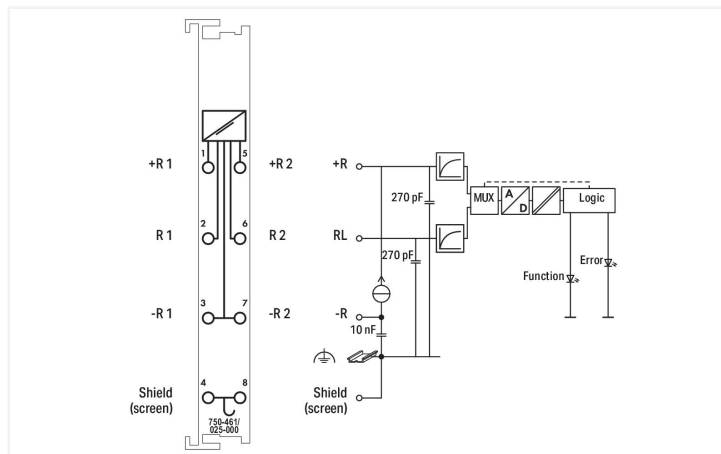


# Data Sheet | Item Number: 750-461/025-000

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: inputs/outputs	8 x CAGE CLAMP®
Connection type 1	Inputs/outputs
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 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
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### Material data

Housing material	Polycarbonate; polyamide 6.6
Fire load	1.638 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 (standing/lying); vertical
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 <sub>2</sub> S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO <sub>2</sub> contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data	
Product Group	15 (I/O System)
eCl@ss 10.0	27-24-26-01
eCl@ss 9.0	27-24-26-01
ETIM 8.0	EC001596
ETIM 7.0	EC001596
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454976446
Customs tariff number	85389099990

Environmental Product Compliance	
CAS-No.	1317-36-8 7439-92-1
REACH Candidate List Substance	Lead Lead monoxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
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**

**Declarations of conformity and manufacturer's declarations**



Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungs- stelle	TP TC 020/2011	EAC RU C-DE.AM02. B.00087/19
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-AIM750
UL Underwriters Laboratories Inc. (ORDINARY LOCATI- ONS)	UL 508	E175199 Sec.1

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

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	22-2227356-PDA
BSH Bundesamt fuer Seeschifffahrt und Hydrographie	-	1104
DNV DNV Germany GmbH	DNV-CG-0339, Aug. 2021	TAA00001J4
LR Lloyds Register	-	LR22194334TA
PRS Polski Rejestr Statków	-	TE/2237/880590/19

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)
EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02.B.00163/19 (2Ex nA IIC T4 Gc X)
IECEX TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 14.0035 X (Ex ec IIC T4 Gc)
INMETRO TUV Rheinland do Brasil Ltda.	IEC 60079-0	BR-Ex_TUV 12.1297 X
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX003X_ec
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 750-461/025-000 <a href="#">↓</a>

Documentation

Manual			
Product Manual 2-channel Analog Input for Resistance Sensors	V 1.4.1	pdf 2916.84 KB	<a href="#">↓</a>
System Manual WAGO I/O System 750/753	V 3.3.3 29.08.2023	pdf 8512.61 KB	<a href="#">↓</a>
System Manual Series 750/753			<a href="#">↓</a>

System Description			
750/753 Series I/O-System – General Product Information		pdf 953.35 KB	<a href="#">↓</a>
Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 770.48 KB	<a href="#">↓</a>

Bid Text			
750-461/025-000	19.02.2019	xml 4.72 KB	<a href="#">↓</a>
750-461/025-000	20.10.2017	doc 28.50 KB	<a href="#">↓</a>

Instruction Leaflet			
CCC Ex (Additional information)	26.04.2023	pdf 159.76 KB	<a href="#">↓</a>

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 Kabel Treiber / Serie 750 und 857	6.5.3.0 10.09.2014	zip 4721.96 KB	
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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; unslotted; similar to EN 60715; silver-colored



**Item No.: 210-198**  
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored



**Item No.: 210-508**  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; 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; slotted; similar to EN 60715; silver-colored



**Item No.: 210-506**  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; 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; unslotted; similar to EN 60715; silver-colored



**Item No.: 210-118**  
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



**Item No.: 210-115**  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; 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; slotted; 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; slotted; 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; unslotted; according to EN 60715; silver-colored



**Item No.: 210-505**  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; 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



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

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

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

### 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