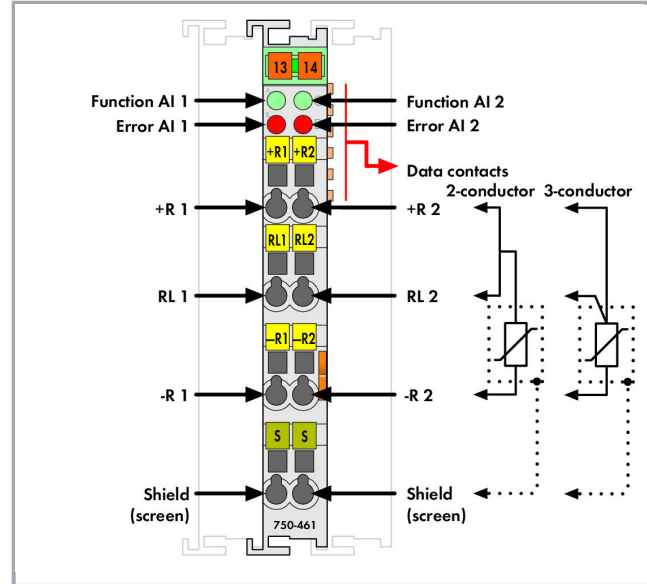


Data sheet | Item number: 750-461

2-channel analog input; For Pt100/RTD resistance sensors; light gray

www.wago.com/750-461



RoHS Compliant

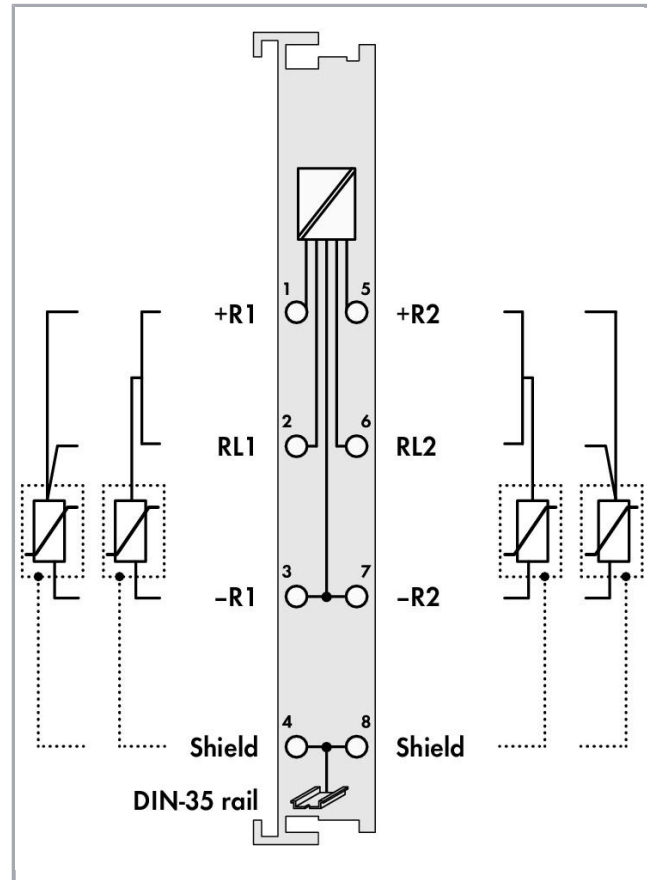
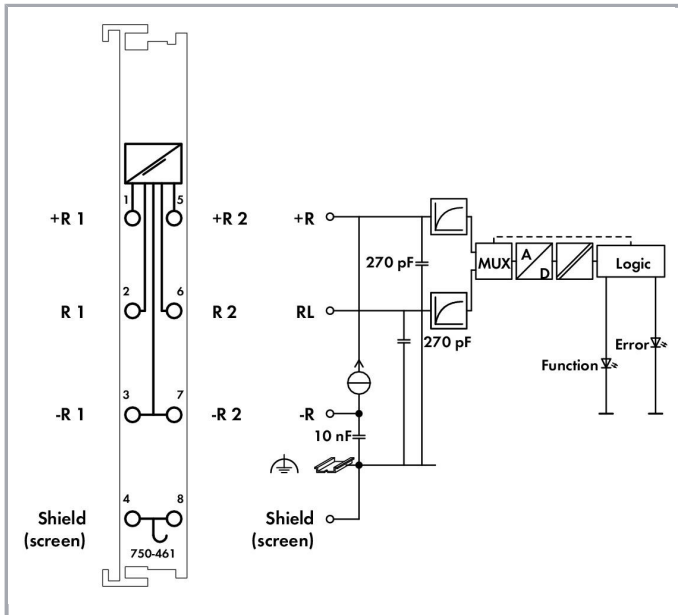
[BOMcheck.net](https://www.bomcheck.net)

Color:

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Item description

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.

Data

Technical Data

| | |
|-----------------------------------|--------------------------------|
| Number of analog inputs | 2 |
| Total number of channels (module) | 2 |
| Type of signal | Resistance measurement |
| Sensor connection | 2 x (2-conductor, 3-conductor) |

Subject to changes.



| | |
|---|--|
| Bit 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 |
| Messfehler, Bezugstemperatur | 25 °C |
| Messfehler, Abweichung max. vom Messbereichsendwert | 0.2 % |
| Temperaturfehler max. vom Messbereichsendwert | 0.01 %/K |
| Measuring current (typ.) | 0.5 mA |
| Response time (max.) | 4 s |
| Sensor types | Pt100 |
| Temperature range | -200 ... +850 °C |
| System supply voltage | DC 5 V; via data contacts |
| Current consumption, system supply (5 V) | 80 mA |
| Isolation | 500 V system/supply |

Connection data

| | |
|------------------------------------|--|
| Connection technology: In-/Outputs | 8 x CAGE CLAMP® |
| Connection type (1) | Inputs/Outputs |
| Solid conductor | 0.08 ... 2.5 mm ² / 28 ... 14 AWG |
| Fine-stranded conductor | 0.08 ... 2.5 mm ² / 28 ... 14 AWG |
| Strip length | 8 ... 9 mm / 0.31 ... 0.35 inch |

Geometrical Data

| | |
|---------------------------------------|----------------------|
| Width | 12 mm / 0.472 inch |
| Height | 69.8 mm / 2.748 inch |
| Height from upper-edge of DIN-35 rail | 62.6 mm / 2.465 inch |
| Depth | 100 mm / 3.937 inch |

Mechanical data

| | |
|------------------|-------------|
| Type of mounting | DIN-35 rail |
|------------------|-------------|

Material Data

| | |
|--------------------|------------------------------|
| Color | light gray |
| Housing material | Polycarbonate, polyamide 6.6 |
| Fire load | 0.943 MJ |
| Weight | 50.7 g |
| Conformity marking | CE |

Subject to changes.

Environmental Requirements

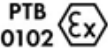

| | |
|--|---|
| Surrounding air (operating) temperature | 0 ... 55 °C |
| Surrounding air (storage) temperature | -40 ... 85 °C |
| Protection class | IP20 |
| Degree of pollution (5) | 2 per IEC 61131-2 |
| Operating altitude | 0 ... 2000 m |
| Mounting position | horizontal (standing/lying) or vertical |
| Relative air humidity (no condensation) | 95 % |
| Vibration resistance | 4g per IEC 60068-2-6 |
| Shock resistance | 15g per IEC 60068-2-27 |
| EMC immunity to interference | acc. to EN 61000-6-2, marine applications |
| EMC emission of interference | acc. to 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 (Remote I/O) |
| Packaging type | BOX |
| Country of origin | DE |
| GTIN | 4045454486679 |
| Customs Tariff No. | 85389099990 |


Approvals / Certificates

Ex-Approvals








| Logo | Approval | Additional Approval Text | Certificate name |
|--|----------------------------------|--------------------------|-----------------------------------|
|  | ATEX TUEV Nord Cert GmbH | EN 60079-0 | TÜV 07 ATEX 554086 X en. |
|  | TUEV Nord TUEV Nord Cert GmbH | IEC 60079-0 | IECEX TUN 09.0001 X |

Subject to changes.

Country specific Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|--------------------------------------|--------------------------|-----------------------------|
|  | KC National Radio Research Agency | Article 58-2, Clause 3 | MSIP- REM-W43- AIM750 |

Ship Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|---|--|--------------------------|--------------------------|
|  | ABS American Bureau of Shipping | - | 19- HG1821926 |
|  | BV Bureau Veritas S.A. | - | 13453/DO BV |
|  | DNV GL Det Norske Veritas, Germanischer Lloyd | - | TAA0000194 |
|  | KR Korean Register of Shipping | - | KR HMB05880- AC001 |
|  | LR Lloyds Register | - | 02/20026 (E6) |
|  | NK Nippon Kaiji Kyokai | - | TA17255M |
|  | PRS Polski Rejestr Statków | - | TE/2236 /880590/19 |
| | RINA RINA Germany GmbH | - | ELE066419XG |


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



UL-Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|--|--------------------------|------------------|
|  | UL UL International Netherlands B.V. (ORDINARY LOCATIONS) | UL 508 | E175199 Sec.1 |

Compatible products

Carrier rail

| | | |
|--|--|--|
|  | 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 | www.wago.com/210-112 |
|  | Item no.: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715 | www.wago.com/210-113 |
|  | Item no.: 210-114 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715 | www.wago.com/210-114 |
|  | 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 | www.wago.com/210-115 |
|  | Item no.: 210-118 Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715 | www.wago.com/210-118 |
|  | 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 | www.wago.com/210-196 |
|  | Item no.: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715 | www.wago.com/210-197 |
|  | 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 | www.wago.com/210-198 |
|  | Item no.: 210-504 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715 | www.wago.com/210-504 |
|  | Item no.: 210-505 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715 | www.wago.com/210-505 |

Subject to changes.

**Item no.: 210-506**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715

www.wago.com/210-506**Item no.: 210-508**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715

www.wago.com/210-508**shield connection****Item no.: 790-108**

Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm

www.wago.com/790-108**Item no.: 790-116**

Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm

www.wago.com/790-116**Item no.: 790-124**

Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm

www.wago.com/790-124**Item no.: 790-140**

Shield clamping saddle; diameter of compatible conductor

www.wago.com/790-140**Item no.: 790-208**

Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm

www.wago.com/790-208**Item no.: 790-216**

Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm

www.wago.com/790-216**Item no.: 790-220**

Shield clamping saddle; 30 mm wide; 6 ... 20 mm

www.wago.com/790-220**Marking accessories****Item no.: 2009-145**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; white

www.wago.com/2009-145**Item no.: 2009-145/000-002**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

www.wago.com/2009-145/000-002**Item no.: 2009-145/000-005**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; red

www.wago.com/2009-145/000-005**Item no.: 2009-145/000-006**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; blue

www.wago.com/2009-145/000-006**Item no.: 2009-145/000-007**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; gray

www.wago.com/2009-145/000-007**Item no.: 2009-145/000-012**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; orange

www.wago.com/2009-145/000-012

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| | | |
|--|---|--|
|  | Item no.: 2009-145/000-023 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; green | www.wago.com/2009-145/000-023 |
|  | Item no.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; violet | www.wago.com/2009-145/000-024 |
|  | Item no.: 248-501 Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card | www.wago.com/248-501 |
|  | Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow | www.wago.com/248-501/000-002 |
|  | Item no.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red | www.wago.com/248-501/000-005 |
|  | Item no.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue | www.wago.com/248-501/000-006 |
|  | Item no.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray | www.wago.com/248-501/000-007 |
|  | Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange | www.wago.com/248-501/000-012 |
|  | Item no.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green | www.wago.com/248-501/000-017 |
|  | Item no.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green | www.wago.com/248-501/000-023 |
|  | Item no.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet | www.wago.com/248-501/000-024 |
|  | Item no.: 750-100 Marker card; as a DIN A4 sheet; plain; white | www.wago.com/750-100 |
|  | Item no.: 750-103 Group marker carrier | www.wago.com/750-103 |
|  | Item no.: 750-106 Group marker carrier | www.wago.com/750-106 |

system box

Subject to changes.

| | | |
|--|--|--|
|  | Item no.: 850-804 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip | www.wago.com/850-804 |
|  | Item no.: 850-804/000-001 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 2 x M20, 13 x M16, 32 x M12 cable grip | www.wago.com/850-804/000-001 |
|  | Item no.: 850-805 IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip | www.wago.com/850-805 |
|  | Item no.: 850-814/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate | www.wago.com/850-814/002-000 |
|  | Item no.: 850-815/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate | www.wago.com/850-815/002-000 |
|  | Item no.: 850-816/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate | www.wago.com/850-816/002-000 |
|  | Item no.: 850-817/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate | www.wago.com/850-817/002-000 |
|  | Item no.: 850-825 IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20 | www.wago.com/850-825 |
|  | Item no.: 850-826 IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip | www.wago.com/850-826 |
|  | 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 | www.wago.com/850-826/002-000 |
|  | Item no.: 850-827 IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip | www.wago.com/850-827 |
|  | 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 | www.wago.com/850-827/002-000 |
|  | Item no.: 850-828 IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip | www.wago.com/850-828 |
|  | 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 | www.wago.com/850-828/002-000 |
|  | Item no.: 850-834 IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20 | www.wago.com/850-834 |

Subject to changes.



Item no.: 850-835

IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

www.wago.com/850-835



Item no.: 850-836

IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

www.wago.com/850-836

Downloads

Documentation

Manual

| | | | |
|--|---------|---------------|----------|
| 2-channel Analog Input for Resistance Sensors PT100 / RTD | V 1.4.1 | pdf 3.0 MB | Download |
|--|---------|---------------|----------|

Bid Text

| | | | |
|------------------------|--------------|---------------|----------|
| 750-461 X81 - Datei | Feb 19, 2019 | xml 4.7 kB | Download |
|------------------------|--------------|---------------|----------|

| | | | |
|------------------------|--------------|----------------|----------|
| 750-461 doc - Datei | Oct 20, 2017 | doc 28.7 kB | Download |
|------------------------|--------------|----------------|----------|

Additional Information

| | | | |
|--|---------|-----------------|----------|
| Disposal; Electrical and electronic equipment, Packaging | V 1.0.0 | pdf 265.8 kB | Download |
|--|---------|-----------------|----------|

System Description

| | | | |
|--|---------|---------------|----------|
| Use in Hazardous Environments Term definition, marking and installation regulations | V 1.0.0 | pdf 1.0 MB | Download |
|--|---------|---------------|----------|

| | | | |
|---|--|---------------|----------|
| 750/753 Series I/O-System – General Product Information | | pdf 1.7 MB | Download |
|---|--|---------------|----------|

| | | | |
|--|---------|---------------|----------|
| Design Notes Basic conditions and recommendations for higher operational safety | V 2.0.0 | pdf 1.5 MB | Download |
|--|---------|---------------|----------|

| | | | |
|---|--|-----------------|----------|
| Overview on WAGO-I/O-SYSTEM 750 approvals | | pdf 780.2 kB | Download |
|---|--|-----------------|----------|

CAD/CAE-Data

CAD data

Subject to changes.



2D/3D Models 750-461

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CAE data

EPLAN Data Portal 750-461

[Download](#)

WSCAD Universe 750-461

[Download](#)

Device Files

Device Driver

WAGO USB Service Kabel Treiber / Serie 750 und 857

6.5.3.0

Sep 10, 2014

zip

4.8 MB

[Download](#)

Installation Notes

Product family

750/753 Series – I/O System

[Show all products from the family](#)

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