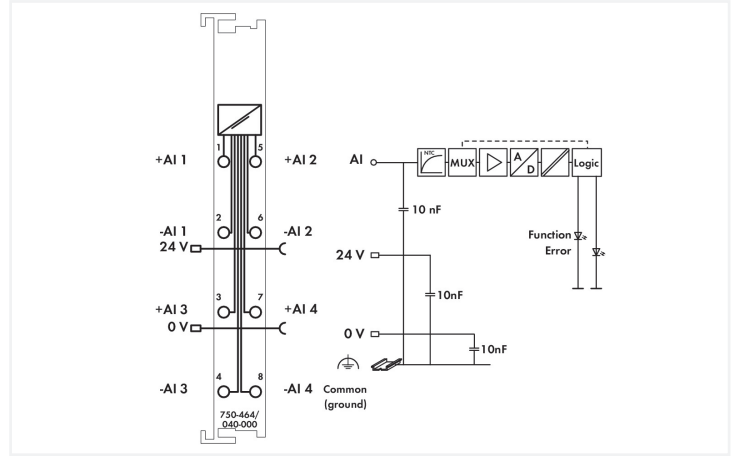


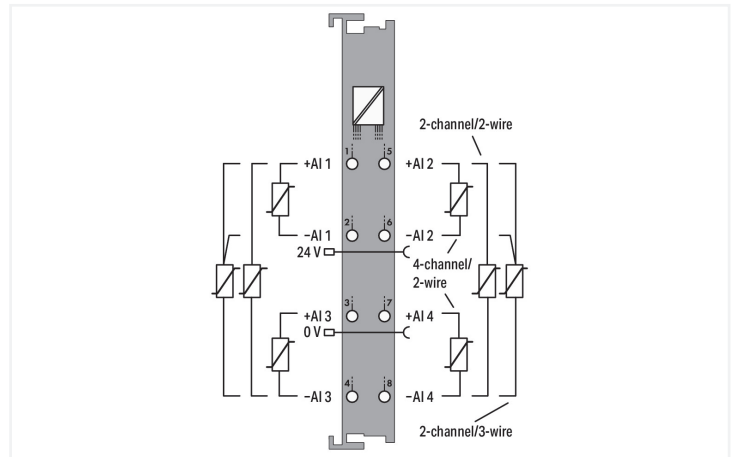
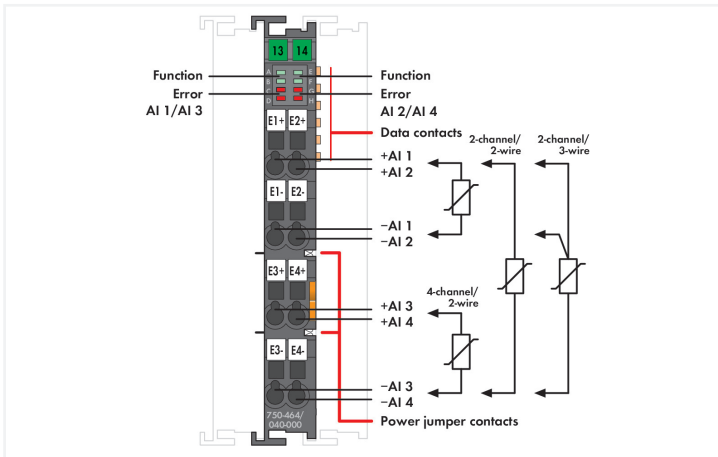
Data Sheet | Item Number: 750-464/040-000

2/4-channel analog input; Resistance measurement; Adjustable; Extreme

<https://www.wago.com/750-464/040-000>



Color: ■ dark gray



This analog input module directly connects to Pt or Ni resistance sensors and potentiometers.

It can be operated as a 2-channel (2- and 3-wire) or 4-channel (2-wire) module.

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.

The module can be configured via WAGO-I/O-CHECK or GSD files.

It features multiple setting options and high accuracy.

The device is ideal for operation in extreme environments thanks to:

- An extended temperature range
- Greater immunity to impulse voltages and electromagnetic interference
- Higher vibration and shock resistance

Technical data

| | |
|---|---|
| Number of analog inputs | 4 |
| Total number of channels (module) | 4 |
| Signal type | Resistance measurement Potentiometer positions |
| Signal type (configurable) | Yes |
| Sensor connection | 4 x (2-wire); 2 x (3-wire) |
| Data width | 4 (2) x 16-bit data; 4 (2) x 8-bit control/status (optional) |
| Resolution (over entire range) | 0.1 °C |
| Conversion time (typ.) | 320 ms |
| Measurement error (25 °C) | ≤ 1 K over entire temperature range, ≤ 0.5 K over limited temperature range (-30 °C ... +120 °C) |
| Temperature coefficient | ≤ 20 ppm/K; typ. ≤ 15 ppm/K |
| Accuracy (+25 °C) | ≤ ± 0.2 % of full scale value; typ.: ≤ ± 0.1 % of full scale value |
| Measuring current (typ.) | ≤ 350 µA per measurement circuit |
| Measurement repetition rate (standard) | 1.1 s |
| Measurement repetition rate (2-channel/2-conductor) | 0.63 s |
| Response time (max.) | 4 s |
| Sensor types | Pt100; Configurable: Pt200, Pt500, Pt1000 (IEC 751), Ni100, Ni1000 (DIN 43760), Ni120 (Minco), Ni1000 (TK 5000), Potentiometer (2-channel operation only): 10R ... 1k2, 10R ... 5k0 |
| Temperature range | -200 ... +850 °C (Pt), -60 ... +300 °C (Ni 100, Ni 1000), -60 ... +250 °C (Ni 1000 TK5000), -80 ... +260 °C (Ni 120) |
| Supply voltage (system) | 5 VDC; via data contacts |
| Current consumption (system supply) | 50 mA |
| Supply voltage (field) | 24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact); Derating must be observed! |
| Dielectric strength | 510 VAC / 775 VDC; per EN 60870-2-1 |
| Rated impulse withstand voltage | 1 kV |
| Indicators | LED (A, E, B, F) green: Function AI 1 ... AI 4; LED (C, G, D, H) red: Error AI 1 ... AI 4 |
| Number of incoming power jumper contacts | 2 |
| Number of outgoing power jumper contacts | 2 |
| Current carrying capacity (power jumper contacts) | 10 A |
| Derating | Derating (supply voltage): Ambient temperatures under laboratory conditions: (-25 ... +30 %); for -40 ... +55 °C: 24 V (-25 ... +20 %); for +55 ... +70 °C: 24 V (-25 ... +10 %); Lower limit in all temperature ranges: -27.5 % (including 15 % residual ripple) |

Connection Data

| | |
|---------------------------------|--|
| Connection technology: I/O | 8 x CAGE CLAMP® |
| Connectable conductor materials | Copper |
| Connection type | Inputs/outputs |
| Solid conductor | 0.25 ... 2.5 mm ² / 24 ... 14 AWG |
| Fine-stranded conductor | 0.25 ... 2.5 mm ² / 24 ... 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 | 67.8 mm / 2.669 inches |
| Depth from upper-edge of DIN-rail | 60.6 mm / 2.386 inches |

Mechanical data

| | |
|---------------|-------------|
| Mounting type | DIN-35 rail |
|---------------|-------------|

Material data

| | |
|--------------------|------------------------------|
| Color | dark gray |
| Housing material | Polycarbonate; polyamide 6.6 |
| Fire load | 0.697 MJ |
| Weight | 49.2 g |
| Conformity marking | CE |

Environmental requirements

| | |
|--|--|
| Ambient temperature (operation) | -40 ... +70 °C |
| Ambient temperature (installation) | -20 ... +70 °C |
| Ambient temperature (storage) | -40 ... +85 °C |
| Protection type | IP20 |
| Pollution degree | 2 per IEC 61131-2 |
| Operating altitude | without temperature derating: 0 ... 2000 m; with temperature derating: 2000 ... 5000 m (0.5 K/100 m); 5000 m (max.) |
| Mounting position | Horizontal left, horizontal up, vertical top and vertical bottom |
| Relative humidity (without condensation) | 95 % |
| Relative humidity (with condensation) | Short-term condensation per Class 3K7/IEC EN 60721-3-3 and E-DIN 40046-721-3 (except for wind-driven precipitation, water and ice formation) |
| Vibration resistance | According to type test for marine classification (ABS, BV, DNV, IACS, LR): acceleration: 5g, IEC 60068-2-6, EN 60870-2-2, IEC 60721-3-1, -3, EN 50155, EN 61373 |
| Shock resistance | per IEC 60068-2-27 (10g/16 ms/half-sine/1,000 shocks; 25g/6 ms/half-sine/1,000 shocks), EN 50155, EN 61373 |
| EMC immunity to interference | per EN 61000-6-1, -2; EN 61131-2; marine applications; EN 50121-3-2; EN 50121-4, -5; EN 60255-26; EN 60870-2-1; EN 61850-3; IEC 61000-6-5; IEEE 1613; VDEW: 1994 |
| EMC emission of interference | per EN 61000-6-3, -4, EN 61131-2, EN 60255-26, marine applications, EN 60870-2-1, EN 61850-3, EN 50121-3-2, EN 50121-4, -5 |
| 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 | 4050821460329 |
| Customs tariff number | 85437090990 |

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 10.0 | EC001596 |
| ECCN | NO US CLASSIFICATION |

Environmental Product Compliance

| | |
|---|--|
| CAS-No. | 11120-22-2 1303-86-2 1317-36-8 7439-92-1 |
| REACH Candidate List Substance | Diboron trioxide Lead Lead monoxide Lead silicate |
| RoHS Compliance Status | Compliant,With Exemption |
| RoHS Exemption | 6(c) 7(a) 7(c)-I 7(c)-II |
| SCIP notification number (Austria) | bab220f3-b49b-441a-8fd7-48e5982bcd23 |
| SCIP notification number (Belgium) | a161140f-3c02-4860-8be3-4a918e3e9c76 |
| SCIP notification number (Bulgaria) | d91bb5a7-aed1-4363-a08e-c172555b75e5 |
| SCIP notification number (Czech Republic) | e4a9f6a4-6f7a-4061-ae2d-3ffdca87f5e |
| SCIP notification number (Denmark) | 97ac303c-0b68-4a0a-b773-1e0b597ba505 |
| SCIP notification number (Finland) | bc8a2508-d83f-494a-9b77-891c17d679d9 |
| SCIP notification number (France) | 92c6ffd5-683f-47c9-9303-04f1eb11d07e |
| SCIP notification number (Germany) | 4cafb702-c987-4248-97f9-958392ef1696 |
| SCIP notification number (Hungary) | accee52-5fff-42ed-8c7a-5dd17ddcc41f |
| SCIP notification number (Italy) | 716885ac-4b76-49bb-b148-de234d459afb |
| SCIP notification number (Netherlands) | 97a7ba7b-1381-468f-aad2-ef48b5efe4f1 |
| SCIP notification number (Poland) | 46ac5db4-0c81-48de-83e4-8ba05ad159b2 |
| SCIP notification number (Romania) | ff97a74b-3b6e-4da5-ad3c-ea4c8bfff58c |
| SCIP notification number (Sweden) | 54824380-7890-40fd-8ea7-ca890161656d |

Approvals / Certificates

General approvals



| Approval | Standard | Certificate Name |
|---|------------------------|---------------------|
| 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 Shipping | - | 22-2208829-PDA |
| LR Lloyds Register | - | LR22276776TA |
| PRS Polski Rejestr Statków | - | TE/1099/880590/23 |

Approvals for hazardous areas



| Approval | Standard | Certificate Name |
|--|-------------|---|
| ATEX TUEV Nord Cert GmbH | EN 60079-0 | TUEV 17 ATEX 193969X (II 3 G Ex ec IIC T4 Gc) |
| CCC CNEX | CNCA-C23-01 | 2020312310000214 (Ex ec IIC T4 Gc) |
| IECEx TUEV Nord Cert GmbH | IEC 60079-0 | IECEx TUN 16.0046X (Ex ec IIC T4 Gc) |
| UKEx WAGO GmbH & Co. KG | EN 60079-0 | UKCA_WA GO22UKEX005X_ec |
| UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | UL 121201 | E198726 |

Downloads

Environmental Product Compliance

| | |
|---|-------------------|
| Compliance Search | |
| Environmental Product Compliance 750-464/040-000 | ↓ |

Documentation

| | | | |
|--|--|--------------------|-------------------|
| Manual | | | |
| Product Manual 2/4AI RTD freely configurable / XTR | 4946431755 2 en-US 2026-01-28 09:38 04.02.2026 | pdf 11889.83 KB | ↓ |

| | | |
|---|------------------|-------------------|
| System Description | | |
| Overview on WAGO-I/O- SYSTEM 750 approvals | pdf 770.48 KB | ↓ |
| 750 XTR Series I/O-Sys- tem – General Product Information | pdf 726.09 KB | ↓ |

| | | | |
|-----------------|------------|-----------------|-------------------|
| Bid Text | | | |
| 750-464/040-000 | 19.02.2019 | xml 7.74 KB | ↓ |
| 750-464/040-000 | 28.10.2015 | doc 31.50 KB | ↓ |

| | | | |
|--------------------------------------|------------|------------------|-------------------|
| Instruction Leaflet | | | |
| CCC Ex (Additional infor- mation) | 26.04.2023 | pdf 144.58 KB | ↓ |

CAD/CAE-Data

| | |
|---------------------------------|-------------------|
| CAD data | |
| 2D/3D Models 750-464/040-000 | ↓ |

| | |
|--------------------------------------|-------------------|
| CAE data | |
| EPLAN Data Portal 750-464/040-000 | ↓ |
| WSCAD Universe 750-464/040-000 | ↓ |
| ZUKEN Portal 750-464/040-000 | ↓ |

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.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



Item No.: 210-114
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.: 210-112
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.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

1.1.2 Marking

1.1.2.1 Group marker carrier



Item No.: 750-107
Group marker carrier

1.1.2.2 Marker

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); Wx-HxD (160x100x160 mm); 9 x M12, 4 x M20



Item No.: 850-826
IP65 enclosure; Aluminium (RAL 7032); Wx-HxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-827
IP65 enclosure; Aluminium (RAL 7032); Wx-HxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-828
IP65 enclosure; Aluminium (RAL 7032); Wx-HxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



Item No.: 850-826/002-000
IP65 enclosure; Aluminium (RAL 7035); Wx-HxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-827/002-000
IP65 enclosure; Aluminium (RAL 7035); Wx-HxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-828/002-000
IP65 enclosure; Aluminium (RAL 7035); Wx-HxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



Item No.: 850-834
IP65 enclosure; Polyester (RAL 7032); Wx-HxD (164x100x164 mm); 9 x M12, 4 x M20



Item No.: 850-835
IP65 enclosure; Polyester (RAL 7032); Wx-HxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-836
IP65 enclosure; Polyester (RAL 7032); Wx-HxD (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); Wx-HxD (200x120x200 mm); without flange plate



Item No.: 850-815/002-000
IP65 enclosure; Sheet steel (RAL 7035); Wx-HxD (300x120x200 mm); without flange plate



Item No.: 850-816/002-000
IP65 enclosure; Sheet steel (RAL 7035); Wx-HxD (400x120x200 mm); without flange plate



Item No.: 850-817/002-000
IP65 enclosure; Sheet steel (RAL 7035); Wx-HxD (600x120x200 mm); without flange plate