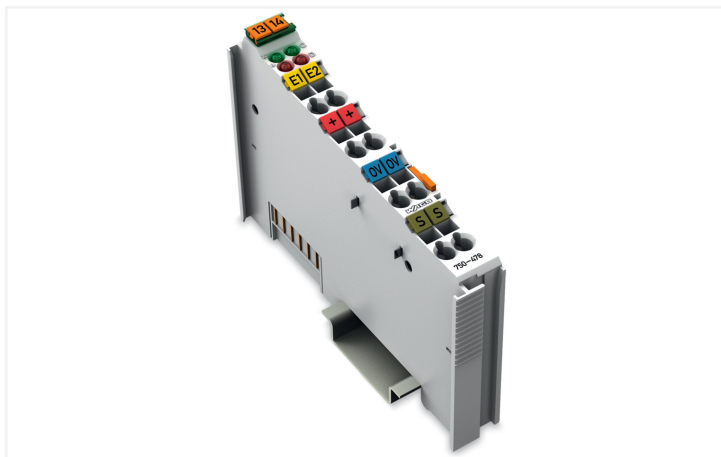
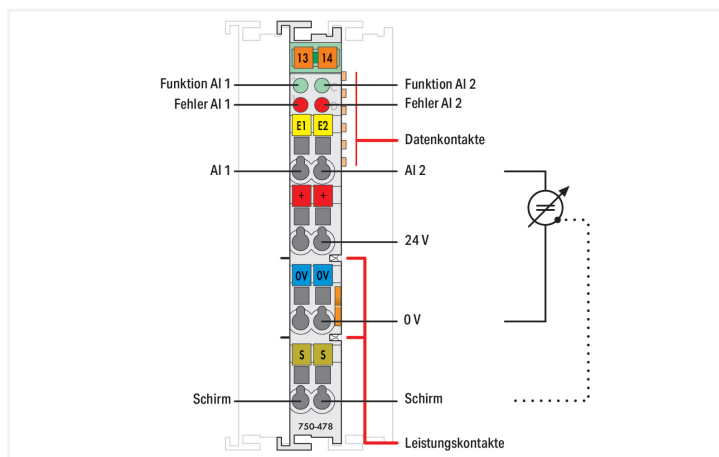
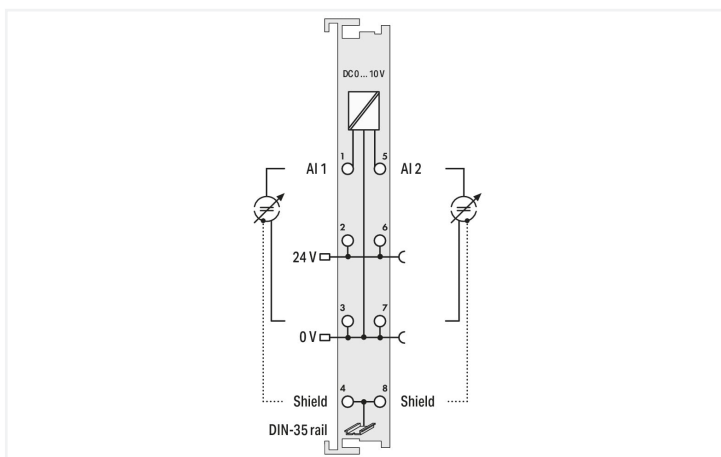
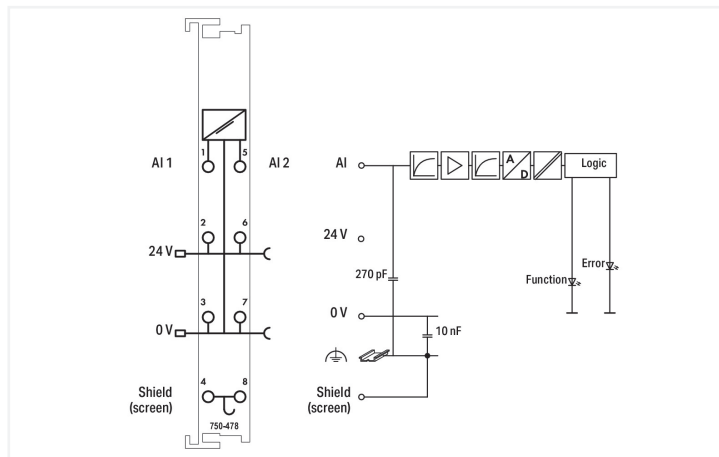


Data Sheet | Item Number: 750-478
 2-channel analog input; 0 ... 10 VDC; Single-ended; 16 bits

<https://www.wago.com/750-478>



Color: ■ light gray



This analog input module processes standard 0–10 V signals.
 The input signal is electrically isolated and is transmitted with a resolution of 16 bits.
 The internal system supply powers the module.
 The input channels of the module have a common ground potential.
 The 24 V supply is derived from the power jumper contacts.
 The shield directly connects to the DIN-rail.

Technical data

| | |
|--|--|
| Number of analog inputs | 2 |
| Total number of channels (module) | 2 |
| Signal type | Voltage |
| Signal type (voltage) | 0 ... 10 VDC |
| Sensor connection | 2 x (2-wire) |
| Input filter frequency (analog) | 50 Hz |
| Input voltage (max.) | 24 V |
| Signal characteristics | Single-ended |
| Resolution [bit] | 16 bits |
| Data width | 2 x 16-bit data; 2 x 8-bit control/status (optional) |
| Noise rejection at sampling frequency | -100 dB |
| Noise rejection above sampling frequency | -40 dB |
| Internal resistance | 130 kΩ |
| Conversion time (typ.) | 80 ms |
| Measurement error (reference temperature) | 25 °C |
| Measurement error, deviation (max.) from the upper-range value | 0.1 % |
| Temperature error (max.) of the upper-range value | 0.01 %/K |

Technical data

| | |
|--|--|
| Supply voltage (system) | 5 VDC; via data contacts |
| Current consumption (5 V system supply) | 75 mA |
| Supply voltage (field) | 24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission (supply voltage field side only) via spring contact) |
| Isolation | 500 V system/field |
| Indicators | LED (A, C) green: Function AI 1, AI 2; LED (B, D) red: Error AI 1, AI 2 |
| Number of incoming power jumper contacts | 2 |
| Number of outgoing power jumper contacts | 2 |

Connection data

| | |
|---------------------------------------|--|
| Connection technology: inputs/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 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 |
|---------------|-------------|

Material data

| | |
|--------------------|------------------------------|
| Color | light gray |
| Housing material | Polycarbonate; polyamide 6.6 |
| Fire load | 1.037 MJ |
| Weight | 52.5 g |
| Conformity marking | CE |



Environmental requirements

| | |
|--|---|
| Ambient temperature (operation) | 0 ... +55 °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 up, horizontal down, vertical top and vertical bottom |
| Relative humidity (without condensation) | 95 % |
| 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) |
| eCl@ss 10.0 | 27-24-26-01 |
| eCl@ss 9.0 | 27-24-26-01 |
| ETIM 9.0 | EC001596 |
| ETIM 8.0 | EC001596 |
| PU (SPU) | 1 pcs |
| Packaging type | Box |
| Country of origin | DE |
| GTIN | 4045454393380 |
| Customs tariff number | 85389099990 |

| Environmental Product Compliance | |
|---|--|
| CAS-No. | 1303-86-2 1317-36-8 7439-92-1 80-43-3 |
| REACH Candidate List Substance | Diboron trioxide Lead Lead monoxide Peroxide, bis(1-methyl-1-phenylethyl) |
| RoHS Compliance Status | Compliant,With Exemption |
| RoHS Exemption | 6(c) 7(a) 7(c)-I 7(c)-II |
| SCIP notification number (Austria) | 282e55f2-f482-4de6-a6ae-b9c7405dd2ec |
| SCIP notification number (Belgium) | e864dbfe-f5e2-4983-a4a0-2d96e8e63c02 |
| SCIP notification number (Bulgaria) | 0911182d-e64d-4a85-8c49-b393bf553dd9 |
| SCIP notification number (Czech Republic) | df384af8-e1da-4676-a29e-b527f160e7b8 |
| SCIP notification number (Denmark) | 652b96ca-0c53-4d3f-ad37-99d246cdb633 |
| SCIP notification number (Finland) | 89b85810-7c66-4b48-8668-22e444ece548 |
| SCIP notification number (France) | 4af97a02-92b4-46a3-b1c3-ef92604b5bba |
| SCIP notification number (Germany) | 4e9f089e-24cc-4947-abfb-cf4d5a43f855 |
| SCIP notification number (Hungary) | 9a52e106-aeba-4584-9671-d65d0c3ff667 |
| SCIP notification number (Italy) | 577ed35b-dcda-43e0-a2e9-d7c5f35fd12 |
| SCIP notification number (Netherlands) | d58c7284-2de5-461a-8857-69f1068aed9b |
| SCIP notification number (Poland) | b0caf523-141a-4d25-95fd-3162eed03618 |
| SCIP notification number (Romania) | 7e9c8d24-1438-4d3f-9184-cfb9614287c0 |
| SCIP notification number (Sweden) | 59a89f11-c039-4d7d-a0d6-d86d46ca3c93 |

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 Shipping | - | 22-2219060 |
| BSH Bundesamt fuer Seeschifffahrt und Hydrographie | - | 1104 |
| BV Bureau Veritas S.A. | - | 13453/E0 BV |
| DNV DNV GL SE | DNV-CG-0339, Aug. 2021 | TAA0000194 |
| KR Korean Register of Shipping | - | KR HMB05880-AC001 |
| LR Lloyds Register EMEA | - | LR22180952TA |
| PRS Polski Rejestr Statków | - | TE/1101/880590/23 |
| RINA RINA Germany GmbH | - | ELE343521XG001 |

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 TUV Rheinland do Brasil Ltda. | IEC 60079-0 | 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 |

Downloads

Environmental Product Compliance

| Compliance Search |
|--|
| Environmental Product Compliance 750-478 ↓ |

Documentation

| Manual | | | |
|---|---------|-------------------|-------------------|
| Product Manual 2-channel, 0-10VDC, single-ended | V 1.1.0 | pdf 2037.57 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 | | | |
|----------|------------|-----------------|-------------------|
| 750-478 | 19.10.2017 | doc 28.00 KB | ↓ |
| 750-478 | 19.02.2019 | xml 4.46 KB | ↓ |

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

CAD/CAE-Data

| CAD data | | CAE data | |
|----------------------|--|---------------------------|--|
| 2D/3D Models 750-478 | | EPLAN Data Portal 750-478 | |
| | | WSCAD Universe 750-478 | |
| | | ZUKEN Portal 750-478 | |

Device Files

| Device Driver | | | |
|--|-----------------------|-------------------|--|
| WAGO USB Service Kabel 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











| | | | |
|--|---|--|--|
| <p>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</p> | <p>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</p> | <p>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</p> | <p>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</p> |
| <p>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</p> | <p>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</p> | <p>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</p> | <p>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</p> |
| <p>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</p> | <p>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</p> | <p>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</p> | <p>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</p> |

1.1.2 Marking


1.1.2.1 Group marker carrier

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|--|
| <p>Item No.: 750-106 Group marker carrier</p> |
|--|

1.1.2.2 Marker

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

1.1.2.3 Marker carrier

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|--|
|  <p>Item No.: 750-103 Group marker carrier</p> |
|--|

1.1.3 Shield termination

1.1.3.1 Shield clamping saddles

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

1.1.4 Supply module

1.1.4.1 Supply module



Item No.: 750-612

Power Supply; 0 ... 230 V AC/DC

Item No.: 750-602

Power Supply; 24 VDC

Item No.: 750-601

Power Supply; 24 VDC; fuse holder

Item No.: 750-610

Power Supply; 24 VDC; fuse holder; Diagnostics

1.1.5 System enclosure

1.1.5.1 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