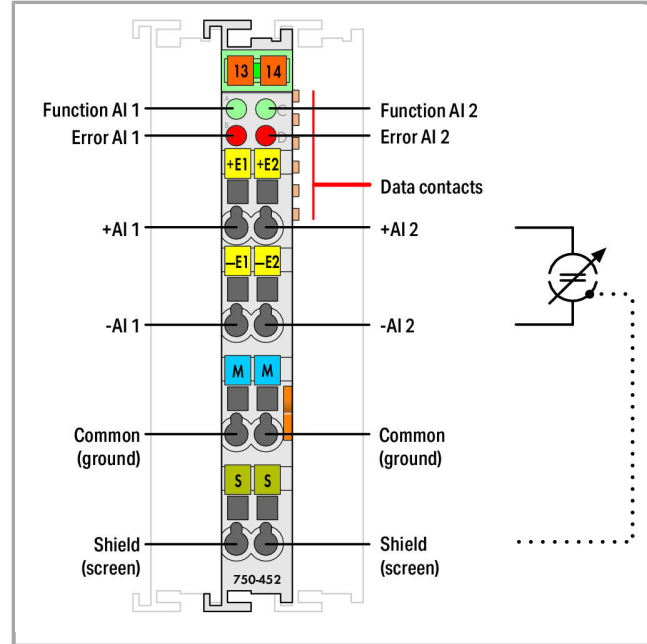


Data sheet | Item number: 750-452

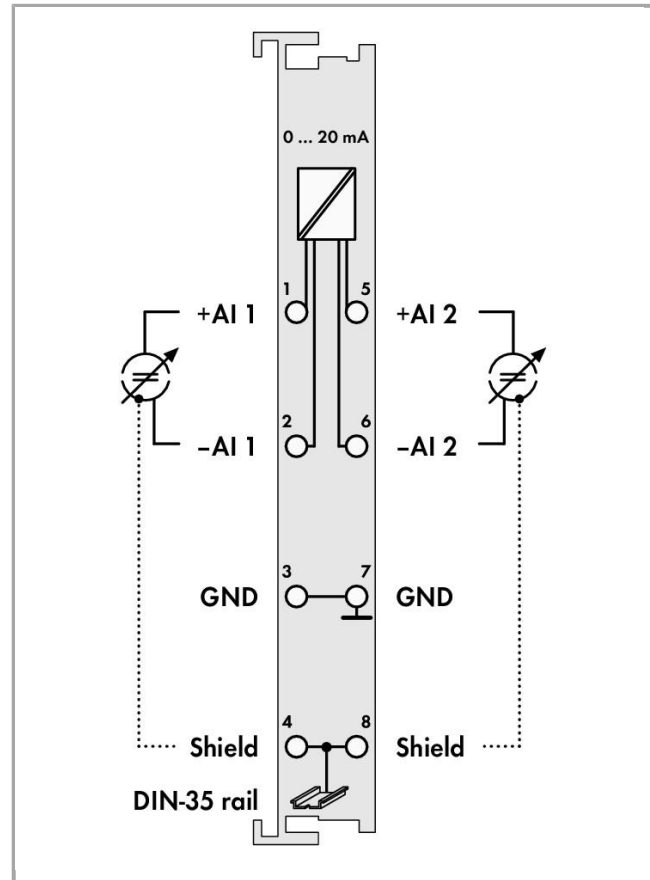
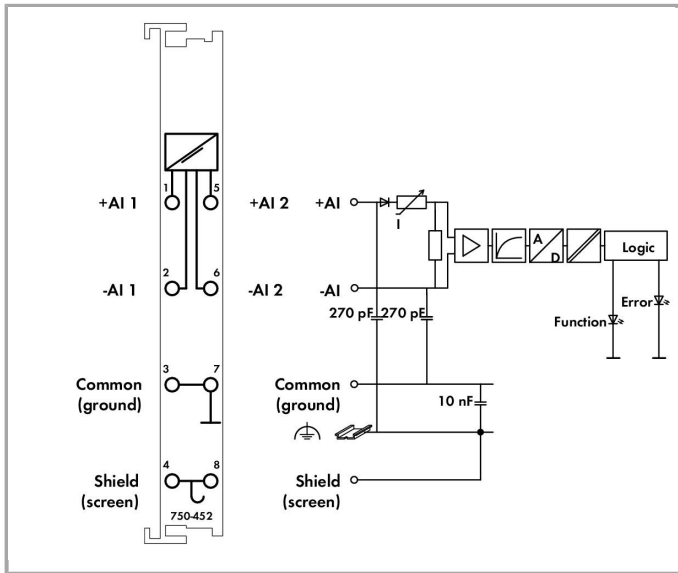
2-channel analog input; 0 ... 20 mA; Differential input

750-452



RoHS Compliant

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



Item description

The analog input module processes signals of a standard magnitude 0–20mA.

The input signal is electrically isolated and is transmitted with a resolution of 12 bits.

The internal system supply is used for the power supply of the module.

The input channels are differential inputs.

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 | Current |
| Type of signal current | DC 0 ... 20 mA |
| Sensor connection | 2 x (2-conductor) |
| Input voltage (max.) | 35 V |
| Signal characteristic | Differential |
| Resolution [bit] | 12 Bit |

| | |
|---|--|
| Input resistance max. | 220 Ω |
| Bit width | 2 x 16-bit data; 2 x 8-bit control/status (optional) |
| Conversion time (typ. ≤) | 2 ms |
| Messfehler, Bezugstemperatur | 25 °C |
| Messfehler, Abweichung max. vom Messbereichsendwert | 0.2 % |
| Temperaturfehler max. vom Messbereichsendwert | 0.01 %/K |
| System supply voltage | DC 5 V; via data contacts |
| Current consumption, system supply (5 V) | 70 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 | 50.5 g |
| Conformity marking | 1 |

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 |

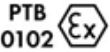


| | |
|--|---|
| Mounting position | horizontal (standing/lying) or vertical |
| Relative air humidity (no condensation) | 95 % |
| Vibration resistance | 4g per IEC 60068-2-6 |
| Shock resistance | 15g per IEC 60068-2-27 |
| EMC immunity to interference | acc. to EN 61000-6-2, marine applications |
| 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) |
| Country of origin | DE |
| GTIN | 4045454484040 |
| 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 |
|  | UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | ANSI/ISA 12.12.01 | E198726 Sec.1 |

Country specific Approvals










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



National Radio Research Agency


REM-W43-
AIM750

Ship Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|---|---|---------------------------------|--------------------------|
|  | ABS American Bureau of Shipping | - | 19- HG1821926 |
|  | ABS American Bureau of Shipping | Rules for class. of Steel Ships | 16- HG1554285- PDA |
|  | BV Bureau Veritas S.A. | - | 13453/DO BV |
|  | DNV GL Det Norske Veritas, Germanischer Lloyd | - | TAA0000194 |
|  | KR Korean Register of Shipping | - | HMB05880- AC001 |
|  | LR Lloyds Register | - | 02/20026 (E5) |
|  | NK Nippon Kaiji Kyokai | - | TA17255M |
|  | PRS Polski Rejestr Statków | - | TE/2236 /880590/19 |
|  | RINA RINA Germany GmbH | - | ELE134212XG |








UL-Approvals

Certificate







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


















Compatible products

















shield connection










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

system box

| | | |
|--|---|---------|
|  | Item no.: 850-804 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip | 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 | 850-804 |
|  | Item no.: 850-805 IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip | 850-805 |
|  | Item no.: 850-814/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate | 850-814 |
|  | Item no.: 850-815/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate | 850-815 |
|  | Item no.: 850-816/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate | 850-816 |

| | | |
|--|--|---------------------|
|  | Item no.: 850-817/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate | 850-817 /002-000 |
|  | Item no.: 850-825 IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20 | 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 | 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 | 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 | 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 | 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 | 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 | 850-828 /002-000 |
|  | Item no.: 850-834 IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20 | 850-834 |
|  | Item no.: 850-835 IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip | 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 | 850-836 |
| 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 210-505 |
|  | Item no.: 210-506 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715 | 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 | 210-508 |
| Marking accessories | | |
|  | Item no.: 2009-145 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 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 | 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 | 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 | 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 | 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 | 2009-145 /000-012 |
|  | Item no.: 2009-145/000-023 Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 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 | 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 | 248-501 |
|  | Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 /000-002 |

| | | |
|--|--|--------------------------|
|  | Item no.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
| | | /000-005 |
|  | Item no.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
| | | /000-006 |
|  | Item no.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
| | | /000-007 |
|  | Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
| | | /000-012 |
|  | Item no.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
| | | /000-017 |
|  | Item no.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
| | | /000-023 |
|  | Item no.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
| | | /000-024 |
|  | Item no.: 750-100 Marker card; as a DIN A4 sheet; plain | 750-100 |
|  | Item no.: 750-103 Group marker carrier | 750-103 |
|  | Item no.: 750-106 Group marker carrier | 750-106 |

Downloads

Documentation

Manual

| | | | |
|--------------------------|---------|---------------|----------|
| 2-channel, 0-20mA, diff. | V 1.1.0 | pdf 2.2 MB | Download |
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Bid Text

| | | | |
|-----------------------|-------------|----------------|----------|
| 750-452 IO-Klemmen | Apr 4, 2012 | doc 28.2 kB | Download |
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Additional Information

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

| | | | |
|--|---------|-----------------|----------|
| Design Notes Basic conditions and recommendations for higher operational safety | V 2.0.0 | pdf 1.5 MB | Download |
| 750/753 Series I/O-System – General Product Information | | pdf 1.7 MB | Download |
| Overview on WAGO-I/O-SYSTEM 750 approvals | | pdf 780.2 kB | Download |
| Use in Hazardous Environments Term definition, marking and installation regulations | V 1.0.0 | pdf 1.0 MB | Download |

CAD/CAE - Smart Data

CAD data

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Device Files

Device Driver

| | | | |
|---|-------------------------|---------------|----------|
| WAGO USB Service Cable Driver / 750 and 857 Series 759-923 | 6.5.3.0 Sep 10, 2014 | zip 4.8 MB | Download |
|---|-------------------------|---------------|----------|

Product family

750/753 Series I/O-System
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Subject to changes.