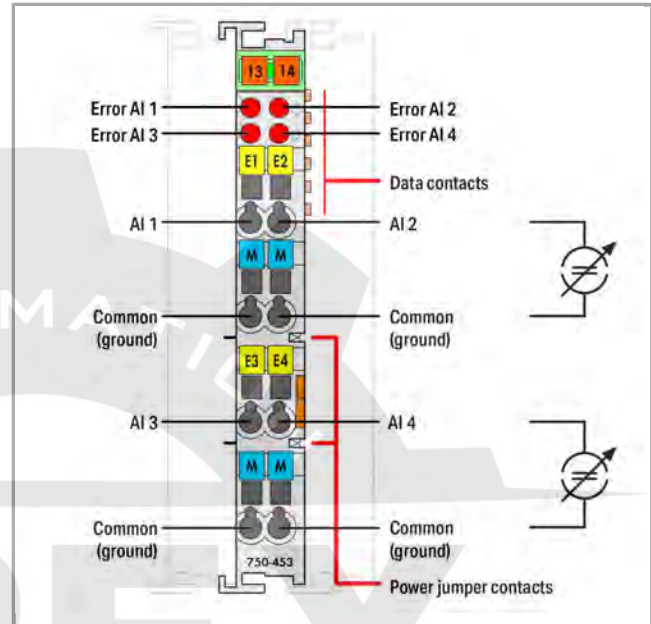


# Data sheet | Item number: 750-453

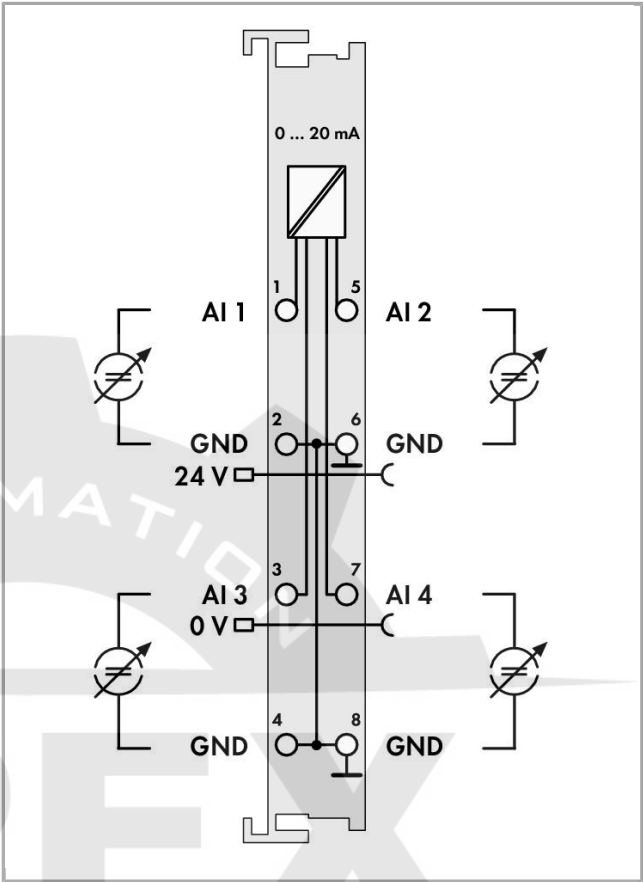
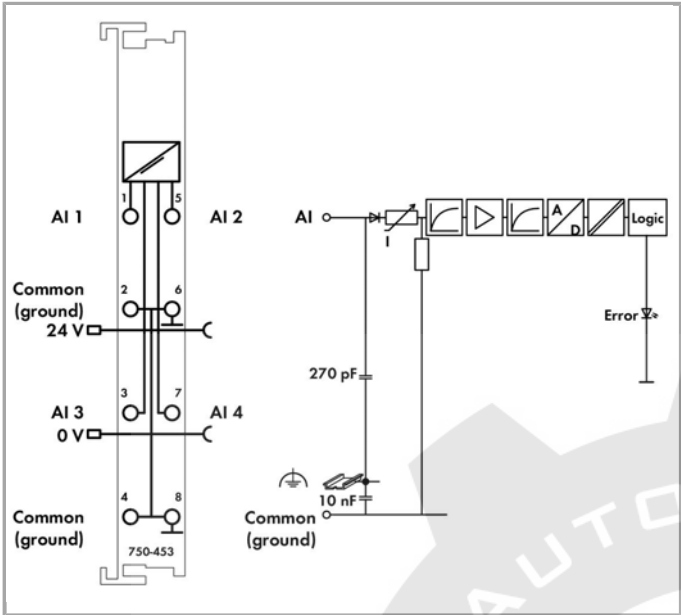
4-channel analog input; 0 ... 20 mA; Single-ended

750-453



RoHS  
Compliant

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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 powers the module.
- The input channels of the module have one common ground potential.

Data  
Technical Data

|                                   |                   |
|-----------------------------------|-------------------|
| Number of analog inputs           | 4                 |
| Total number of channels (module) | 4                 |
| Type of signal                    | Current           |
| Type of signal current            | DC 0 ... 20 mA    |
| Sensor connection                 | 4 x (2-conductor) |
| Input voltage (max.)              | 32V               |
| Signal characteristic             | Single-ended      |
| Resolution [bit]                  | 12 Bit            |
| Input resistance max.             | 100 Ω             |

|                                                        |                                                                                                                   |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Bit width                                              | 4 x 16-bit data; 4 x 8-bit control/status (optional)                                                              |
| Conversion time (typ. ≤)                               | 10 ms                                                                                                             |
| Messfehler, Bezugstemperatur                           | 25 °C                                                                                                             |
| Messfehler, Abweichung max. vom Messbereichsendwert    | 0.1 %                                                                                                             |
| Temperaturfehler max. vom Messbereichsendwert          | 0.01 %/K                                                                                                          |
| System supply voltage                                  | DC 5 V; via data contacts                                                                                         |
| Current consumption, system supply (5 V)               | 65 mA                                                                                                             |
| System and sensor supply voltage                       | )                                                                                                                 |
| Field supply voltage                                   | DC 24 V (-25 ... +30 %); über Leistungskontakte (Einspeisung über Messerkontakt; Weiterleitung über Federkontakt) |
| Isolation                                              | 500 V system/supply                                                                                               |
| Number of incoming power jumper contacts               | 2                                                                                                                 |
| Number of outgoing power jumper contacts               | 2                                                                                                                 |
| Current carrying capacity of the power jumper contacts | 10 A                                                                                                              |

### Connection data

|                                    |                                  |
|------------------------------------|----------------------------------|
| Connection technology: In-/Outputs | 8 x CAGE CLAMP®                  |
| Connection type (1)                | Inputs/Outputs                   |
| Solid conductor                    | 0.08 ... 2.5 mm² / 28 ... 14 AWG |
| Fine-stranded conductor            | 0.08 ... 2.5 mm² / 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          | 1.237 MJ                     |
| Weight             | 51.226 g                     |
| Conformity marking | 1                            |

### Environmental Requirements

|                                         |             |
|-----------------------------------------|-------------|
| Surrounding air (operating) temperature | 0 ... 55 °C |
|-----------------------------------------|-------------|

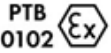
|                                                                                    |                                           |
|------------------------------------------------------------------------------------|-------------------------------------------|
| Surrounding air (storage) temperature                                              | -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 <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 (Remote I/O) |
| Country of origin  | DE              |
| GTIN               | 4045454481902   |
| Customs Tariff No. | 85389099990     |

## Approvals / Certificates

### Ex-Approvals

| Logo                                                                               | Approval                                                   | Additional Approval Text | Certificate name                  |
|------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------|-----------------------------------|
|  | ATEX<br>TUEV Nord Cert GmbH                                | EN 60079-0               | TÜV 07<br>ATEX<br>554086 X<br>en. |
|  | TUEV Nord<br>TUEV Nord Cert GmbH                           | IEC 60079-0              | IECEX<br>TUN<br>09.0001 X         |
|  | UL<br>Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | ANSI/ISA 12.12.01        | E198726<br>Sec.1                  |

### Country specific Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|------|----------|--------------------------|------------------|
|      | KC       | Article 58-2, Clause 3   | MSIP-            |



National Radio Research Agency

REM-W43-  
AIM750KC  
National Radio Research Agency

Article 58-2, Clause 3

MSIP-  
REM-W43-  
AIM750

## Ship Approvals

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



## UL-Approvals

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

## Compatible products

## Marking accessories

|                                                                                    |                                                                                                                        |          |          |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------|----------|
|    | Item no.: 2009-145<br>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<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /000-002 | 2009-145 |
|  | Item no.: 2009-145/000-005<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /000-005 | 2009-145 |
|  | Item no.: 2009-145/000-006<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /000-006 | 2009-145 |
|  | Item no.: 2009-145/000-007<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /000-007 | 2009-145 |
|  | Item no.: 2009-145/000-012<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /000-012 | 2009-145 |
|  | Item no.: 2009-145/000-023<br>Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type  | /000-023 | 2009-145 |
|  | Item no.: 2009-145/000-024<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /000-024 | 2009-145 |
|  | Item no.: 248-501<br>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

/000-002

248-501



**Item no.: 248-501/000-005**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-005

248-501



**Item no.: 248-501/000-006**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-006

248-501



**Item no.: 248-501/000-007**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-007

248-501



**Item no.: 248-501/000-012**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-012

248-501



**Item no.: 248-501/000-017**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-017

248-501



**Item no.: 248-501/000-023**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-023

248-501



**Item no.: 248-501/000-024**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-024

248-501



**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

#### 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

/000-001

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

/002-000

850-814



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

/002-000

850-815



**Item no.: 850-816/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate

/002-000

850-816

**Item no.: 850-817/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate

/002-000

850-817

**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 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

/002-000

850-826

**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 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

/002-000

850-827

**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 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip

/002-000

850-828

**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

**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

**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**

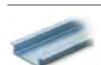
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm

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

**Downloads****Documentation****Manual**

4-channel, 0-20mA, single-ended

V 1.1.1

pdf  
2.0 MB

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**Bid Text**

750-453

IO-Klemmen

Apr 4, 2012

doc  
27.6 kB

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**Additional Information**

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

**System Description**

|                                                                                        |         |                 |          |
|----------------------------------------------------------------------------------------|---------|-----------------|----------|
| 750/753 Series I/O-System – General Product Information                                |         | pdf<br>1.7 MB   | Download |
| Overview on WAGO-I/O-SYSTEM 750 approvals                                              |         | pdf<br>780.2 kB | Download |
| Use in Hazardous Environments<br>Term definition, marking and installation regulations | V 1.0.0 | pdf<br>1.0 MB   | Download |
| Design Notes<br>Basic conditions and recommendations for higher operational safety     | V 2.0.0 | pdf<br>1.5 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<br>759-923 | 6.5.3.0<br>Sep 10, 2014 | zip<br>4.8 MB | Download |
|---------------------------------------------------------------|-------------------------|---------------|----------|

**Product family**

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