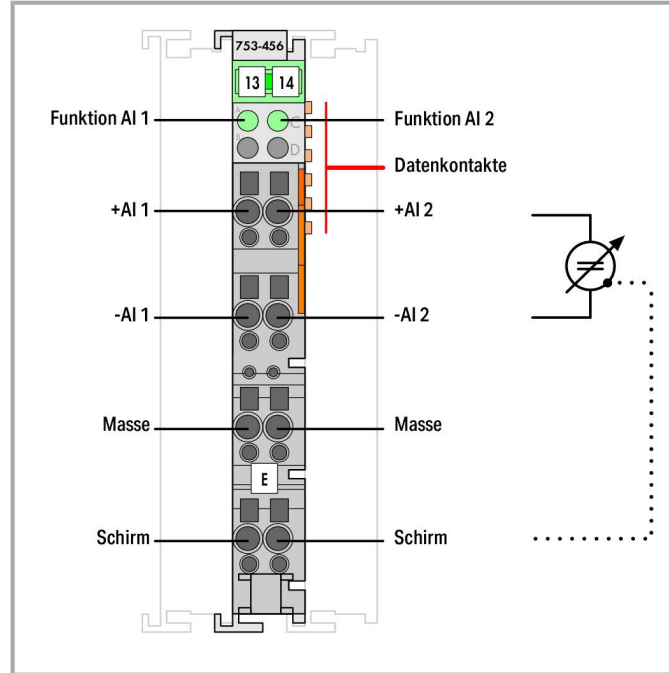
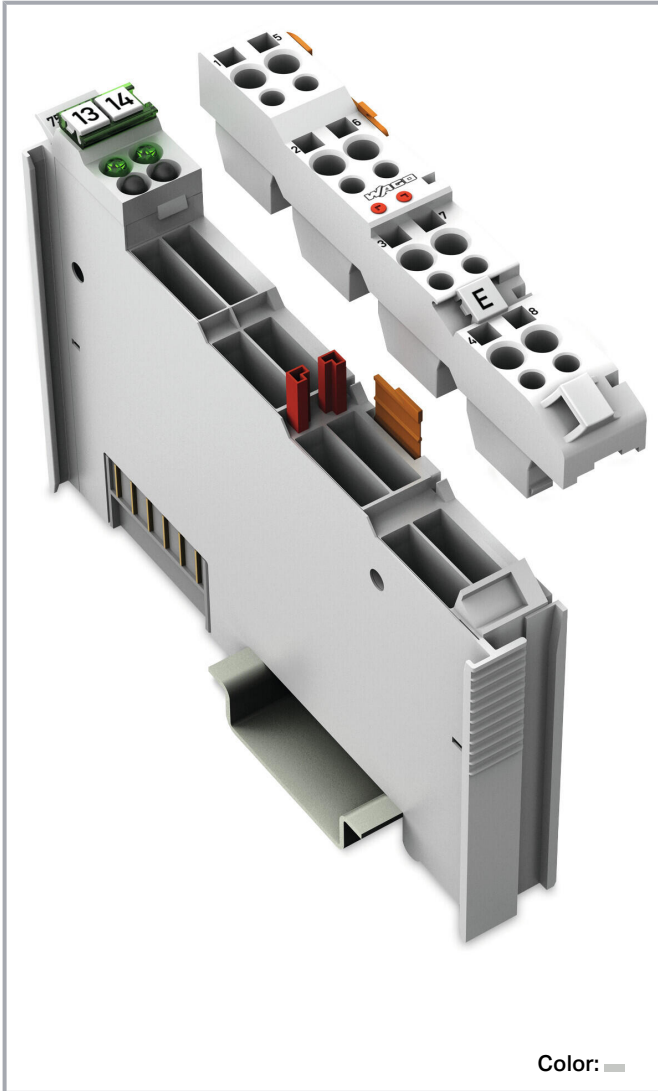


Data sheet | Item number: 753-456

2-channel analog input; ± 10 VDC; Differential input

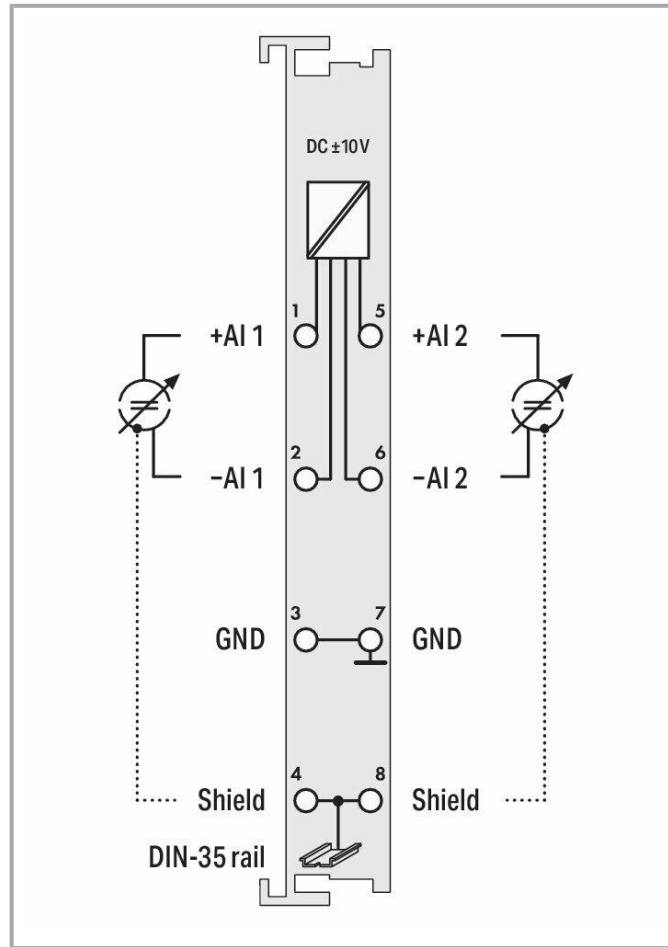
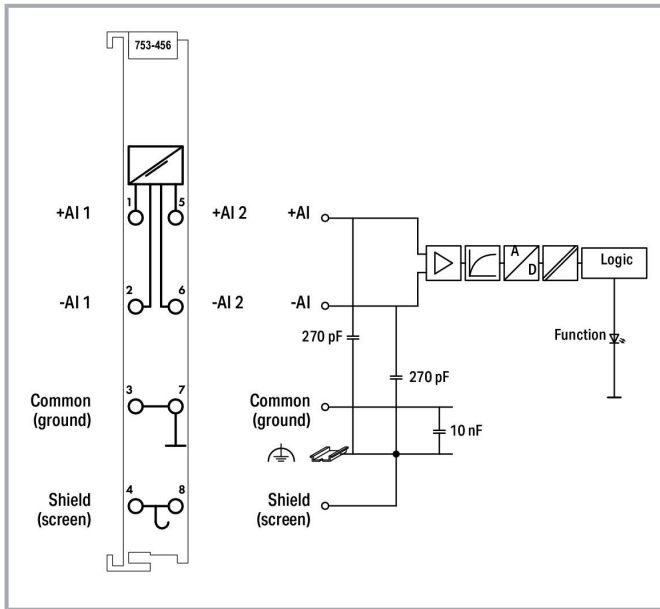
www.wago.com/753-456



Subject to changes. Please also observe the further product documentation!

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Item description

This analog input module processes standard ± 10 V signals.

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 are differential inputs.

The shield directly connects to the DIN-rail.

Data

Notes

Note

Subject to changes. Please also observe the further product documentation!



Pluggable connectors and coding fingers (753 Series) are not included.

Technical data

| | |
|--|--|
| Number of analog inputs | 2 |
| Total number of channels (module) | 2 |
| Signal type | Voltage |
| Signal type (voltage) | -10 ... +10 VDC |
| Sensor connection | 2 x (2-wire) |
| Input voltage (max.) | 35 V |
| Signal characteristics | Differential |
| Resolution [bit] | 12 bits |
| Data width | 2 x 16-bit data; 2 x 8-bit control/status (optional) |
| Internal resistance | 570 k Ω |
| Conversion time (typ.) | 2 ms |
| Measurement error (reference temperature) | 25 °C |
| Measurement error, deviation (max.) from the upper-range value | 0.2 % |
| Temperature error (max.) of the upper-range value | 0.015 %/K |
| Supply voltage (system) | 5 VDC; via data contacts |
| Current consumption (5 V system supply) | 80 mA |
| Isolation | 500 V system/field |
| Indicators | LED (A, C) green: Function AI 1, AI 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 | 9 ... 10 mm / 0.35 ... 0.39 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 |

Subject to changes. Please also observe the further product documentation!



Mechanical Data

| | |
|---------------------|-------------|
| Mounting type | DIN-35 rail |
| Pluggable connector | Pluggable |

Material Data

| | |
|--------------------|------------------------------|
| Color | light gray |
| Housing material | Polycarbonate; polyamide 6.6 |
| Fire load | 0.882 MJ |
| Weight | 41 g |
| Conformity marking | CE |

Environmental requirements

| | |
|--|---------------------------------------|
| Ambient temperature (operation) | 0 ... +55 °C |
| Ambient temperature (storage) | -25 ... +85 °C |
| Protection type | IP20 |
| Pollution degree | 2 per IEC 61131-2 |
| Operating altitude | 0 ... 2000 m / 0 ... 6562 ft |
| Mounting position | horizontal (standing/lying); vertical |
| 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 8.0 | EC001596 |
| ETIM 7.0 | EC001596 |

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| | |
|-----------------------|---------------|
| PU (SPU) | 1 pcs |
| Packaging type | box |
| Country of origin | DE |
| GTIN | 4045454481735 |
| Customs tariff number | 85389099990 |

Environmental Product Compliance

| | |
|---|---|
| CAS-No. | 1303-86-2 1317-36-8 7439-92-1 |
| REACH Candidate List Substance | Diboron trioxide Lead Lead monoxide |
| RoHS Compliance Status | Compliant, With Exemption |
| RoHS Exemption | 7(a) 7(c)-I 7(c)-II |
| SCIP notification number (Austria) | d7038449-5b98-4164-b247-8ee522248cc5 |
| SCIP notification number (Belgium) | 2b8f1e38-328c-487d-b938-1aa5f81cf073 |
| SCIP notification number (Bulgaria) | b686718d-9f4c-4dee-a706-33802c147272 |
| SCIP notification number (Czech Republic) | a2b67b75-966a-4700-a744-38a28117474e |
| SCIP notification number (Denmark) | 04d6f9fb-9bb6-4fc0-994d-d820a8af143d |
| SCIP notification number (Finland) | 9b48e4c4-dc22-4e3d-b183-ebe05aa2d5c1 |
| SCIP notification number (France) | a10fb68e-ff31-4e1c-a8e1-11bc1dc3cd87 |
| SCIP notification number (Germany) | ff8af56e-535d-4397-83f6-15b2eb16b97b |
| SCIP notification number (Hungary) | c8952d12-6e61-42f1-8466-ec8da00937e6 |
| SCIP notification number (Italy) | 7f03e3e2-f54f-4a10-bff5-41a1e8105281 |
| SCIP notification number (Netherlands) | e29802de-331d-497a-850b-3ed25312606e |
| SCIP notification number (Poland) | b1c5e318-aa76-4524-84b2-65eac936a6fe |
| SCIP notification number (Romania) | 4eecf7c9-0f1c-48ae-94c7-ff6244436288 |
| SCIP notification number (Sweden) | 1623a3a8-7d52-448d-8087-5cddccb1b640 |

Approvals / Certificates



General approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|-------------|--------------------------|---------------------------------------|
|  | CCC CNEX | CNCA-C23-01 | 2020312310000213 (Ex ec IIC T4 Gc) |



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| | | | |
|--|--|------------------------|---------------------------------|
|  | EAC Brjansker Zertifizierungsstelle | TP TC 020/2011 | EAC RU C-DE.AM02. B.00087/19 |
| | KC National Radio Research Agency | Article 58-2, Clause 3 | MSIP-REM-W43- AIM750 |
|  | UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS) | UL 508 | E175199 Sec.1 |

Declarations of conformity and manufacturer's declarations

| Logo | Approval | Additional Approval Text | Certificate name |
|--|--|--------------------------|------------------|
|  | EU-Declaration of Conformity WAGO GmbH & Co. KG | - | - |
|  | UK-Declaration of Conformity WAGO GmbH & Co. KG | - | - |

Approvals for marine applications

| Logo | Approval | Additional Approval Text | 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 |

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| | | | |
|---|----------------------------|---|--------------|
|  | LR Lloyds Register EMEA | - | LR22180952TA |
|---|----------------------------|---|--------------|



| | | |
|-------------------------------|---|-----------------------|
| PRS Polski Rejestr Statków | - | TE/2236/880590 /19 |
|-------------------------------|---|-----------------------|



| | | |
|---------------------------|---|----------------|
| RINA RINA Germany GmbH | - | ELE343521XG001 |
|---------------------------|---|----------------|

Approvals for hazardous areas

| Logo | Approval | Additional Approval Text | Certificate name |
|---|--|--------------------------|--|
|  | ATEX TUEV Nord Cert GmbH | EN 60079-0 | TUEV_14_ATEX_148929_X (II 3 G Ex ec IIC T4 Gc) |
|  | CCC CNEX | CNCA-C23-01 | 2020312310000213 (Ex ec IIC T4 Gc) |
|  | EAC Brjansker Zertifizierungsstelle | TP TC 012/2011 | EAC RU C-DE.AM02.B.00163 /19 (2Ex nA IIC T4 Gc X) |
|  | IECEX TUEV Nord Cert GmbH | IEC 60079-0 | IECEX TUN 14.0035 X (Ex ec IIC T4 Gc) |
|  | INMETRO TÜV Rheinland do Brasil Ltda. | IEC 60079-0 | BR-Ex_TÜV 12.1297 X |
|  | UKEx WAGO GmbH & Co. KG | EN 60079-0 | UKCA_WAGO22UKEX003X_ec |
| | UL | UL 121201 | E198726 Sec.1 |

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Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)

Required accessories

Pluggable connector

Male connector/plug



Item no.: 753-110
Plug

www.wago.com/753-110

Optional accessories

System housing

System enclosure



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.: 850-827
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.: 850-826/002-000

Subject to changes. Please also observe the further product documentation!



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.: 850-828/002-000

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.: 850-828

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.: 850-834

IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20

www.wago.com/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

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

Carrier rail

Mounting accessories



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

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; silver-colored

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; silver-colored

www.wago.com/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; silver-colored

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; silver-colored

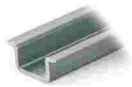
www.wago.com/210-508



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

www.wago.com/210-113



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

www.wago.com/210-118

Item no.: 210-112

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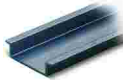
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; www.wago.com/210-112
silver-colored



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 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
silver-colored



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

Pluggable connector

Coding



Item no.: 753-150
753 Series coding elements www.wago.com/753-150

Marking accessories

Marker carrier



Item no.: 750-103
Group marker carrier www.wago.com/750-103

Marker



Item no.: 2009-145/000-006 www.wago.com/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 www.wago.com/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 www.wago.com/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.: 2009-145/000-007 www.wago.com/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.: 2009-145/000-005 www.wago.com/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.: 2009-145/000-012 www.wago.com/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.: 2009-145/000-023

Subject to changes. Please also observe the further product documentation!

| | | |
|--|---|--|
|  | Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; 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; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet | www.wago.com/2009-145/000-024 |
|  | 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.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow | www.wago.com/248-501/000-002 |
|  | Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange | www.wago.com/248-501/000-012 |
|  | Item no.: 248-501 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white | www.wago.com/248-501 |
|  | 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.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red | www.wago.com/248-501/000-005 |
|  | Item no.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet | www.wago.com/248-501/000-024 |
|  | 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.: 750-100 Marker card; as a DIN A4 sheet; plain | www.wago.com/750-100 |
| Group marker carrier | | |

Subject to changes. Please also observe the further product documentation!










Item no.: 750-106
Group marker carrier

www.wago.com/750-106

Shield termination

Shield clamping saddles

| | | |
|--|---|--|
|  | 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.: 790-108 Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm | www.wago.com/790-108 |
|  | Item no.: 790-140 Shield clamping saddle; diameter of compatible conductor | www.wago.com/790-140 |
|  | 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 |
|  | Item no.: 790-208 Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm | www.wago.com/790-208 |

Downloads

Documentation

Manual

| | | | |
|--|-----------------------|---------------|----------|
| System Manual WAGO I/O System 750/753 Decentralized Automation Technology | V 3.3.0 2023 May 4 | pdf 8.8 MB | Download |
| Product Manual 2-channel, \pm 10VDC, diff. | V 1.2.0 | pdf 4.1 MB | Download |
| System Manual Series 750/753 Online HTML | | URL | Download |

Bid Text

| | | | |
|------------------------|-------------|----------------|----------|
| 753-456 X81 - Datei | 2019 Feb 19 | xml 4.7 kB | Download |
| 753-456 doc - Datei | 2017 Oct 17 | doc 28.7 kB | Download |

Subject to changes. Please also observe the further product documentation!



Instruction Leaflet

| | | | |
|--|-------------|-----------------|----------|
| CCC Ex (Additional information) WAGO-I/O-SYSTEM *750-****/* | 2023 Apr 26 | pdf 163.6 kB | Download |
|--|-------------|-----------------|----------|

System Description

| | | | |
|---|--|-----------------|----------|
| 750/753 Series I/O-System – General Product Information | | pdf 1.7 MB | Download |
| Overview on WAGO-I/O-SYSTEM 750 approvals | | pdf 789.0 kB | Download |

Additional Information

| | | | |
|---|------------------------|---------------|----------|
| Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging | V 1.1.0 2022 Aug 18 | pdf 2.2 MB | Download |
|---|------------------------|---------------|----------|

CAD/CAE-Data

CAD data

| | | | |
|----------------------|--|-----|----------|
| 2D/3D Models 753-456 | | URL | Download |
|----------------------|--|-----|----------|

CAE data

| | | | |
|---------------------------|--|-----|----------|
| EPLAN Data Portal 753-456 | | URL | Download |
| ZUKEN Portal 753-456 | | URL | Download |
| WSCAD Universe 753-456 | | URL | Download |

Environmental Product Compliance

Compliance Search

| | | | |
|--|--|-----|----------|
| Environmental Product Compliance 753-456 2-channel analog input; ± 10 VDC; Differential input | | URL | Download |
|--|--|-----|----------|

Installation Notes

Subject to changes. Please also observe the further product documentation!

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Data sheet | Item number: 753-456

www.wago.com/753-456



Product family

WAGO I/O System 750/753

[Show all products from the family](#)

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