

Data sheet | Item number: 753-453

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

www.wago.com/753-453



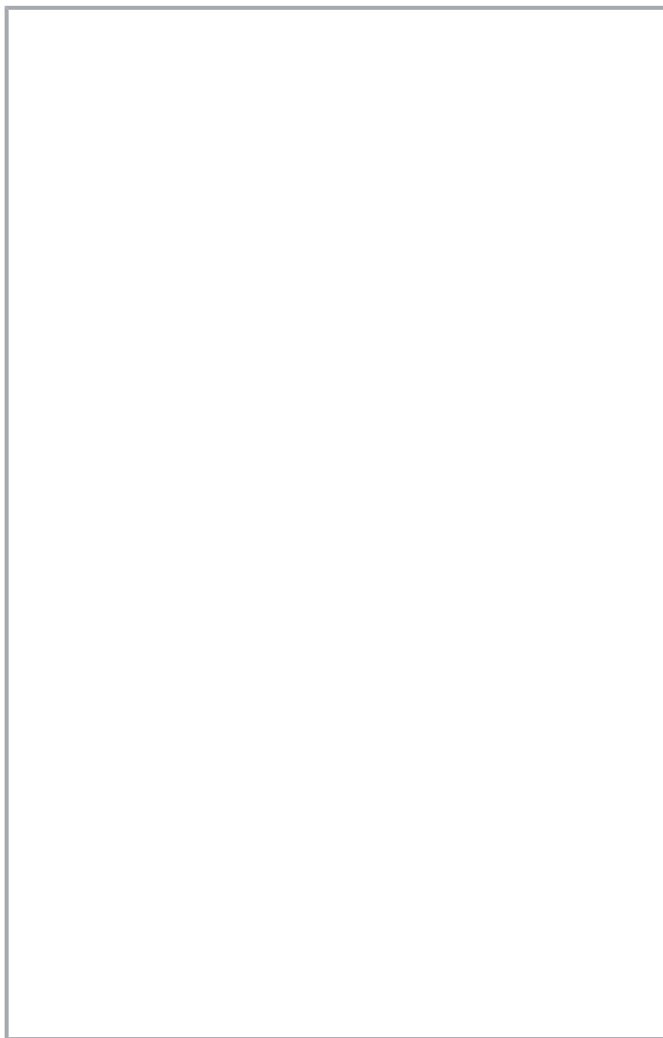
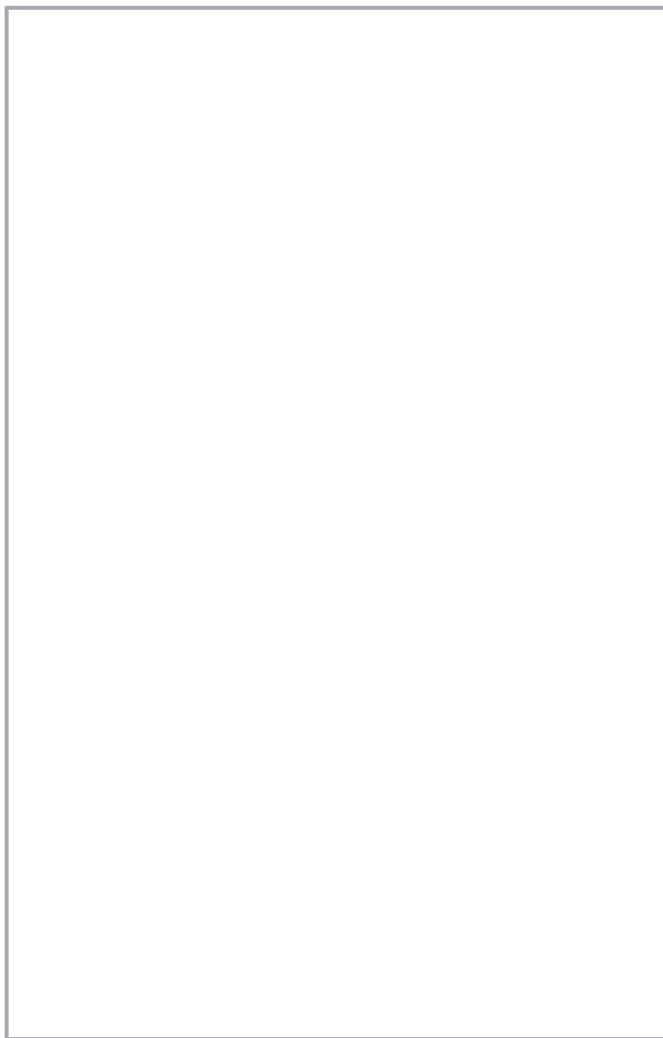
Color:



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

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Item description

This analog input module processes standard 0–20 mA 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 have a common ground potential.

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 | 4 |
| Total number of channels (module) | 4 |
| Signal type | Current |
| Signal type (current) | 0 ... 20 mADC |
| Sensor connection | 4 x (2-wire) |
| Input voltage (max.) | 32 V |
| Signal characteristics | Single-ended |
| Resolution [bit] | 12 bits |
| Input resistance (max.) | 100 Ω |
| Data width | 4 x 16-bit data; 4 x 8-bit control/status (optional) |
| Conversion time (typ.) | 10 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 |
| Supply voltage (system) | 5 VDC; via data contacts |
| Current consumption (5 V system supply) | 65 mA |
| Supply voltage (field) | 24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact) |
| Isolation | 500 V system/field |
| Indicators | LED (A-D) red: Error AI 1 ... AI 4 |
| 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 | 9 ... 10 mm / 0.35 ... 0.39 inches |

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



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 |
| Pluggable connector | Pluggable |

Material Data

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|--------------------|------------------------------|
| Color | light gray |
| Housing material | Polycarbonate; polyamide 6.6 |
| Fire load | 1.157 MJ |
| Weight | 43.2 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 (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 |

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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 |
| Recupel Type | |
| PU (SPU) | 1 pcs |
| Packaging type | box |
| Country of origin | DE |
| GTIN | 4045454481940 |
| Customs tariff number | 85389099990 |

Environmental Product Compliance

| | |
|------------------------|---------------------------|
| RoHS Compliance Status | Compliant,With Exemption |
| RoHS Exemption | 7(a) 7(c)-I 7(c)-II |

Approvals / Certificates

General approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|------|---|--------------------------|-----------------------------|
| | 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 |

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

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| 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 |
| | 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 | TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc) |
| | CCCEX CQST/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 Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | UL 121201 | E198726 Sec.1 |

Required accessories

Pluggable connector

Male connector/plug

Item no.: 753-110

Plug

www.wago.com/753-110

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Optional accessories

Marking accessories

| | | |
|--|--|--|
| Marker carrier | | |
| Item no.: 750-103 | | www.wago.com/750-103 |
| Group marker carrier | | |
| 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 | | www.wago.com/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.: 2009-145/000-024 | | www.wago.com/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.: 248-501/000-006 | | www.wago.com/248-501/000-006 |
| Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue | | |
| Item no.: 248-501/000-007 | | www.wago.com/248-501/000-007 |
| Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray | | |
| Item no.: 248-501/000-002 | | www.wago.com/248-501/000-002 |
| Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow | | |

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



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| 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 |
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| Item no.: 248-501 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white | www.wago.com/248-501 |
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| 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 |
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| 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 |
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| 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 |
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| 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 |
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| Item no.: 750-100 Marker card; as a DIN A4 sheet; plain | www.wago.com/750-100 |
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Group marker carrier

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| Item no.: 750-106 Group marker carrier | www.wago.com/750-106 |
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Shield termination

Shield clamping saddles

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

Carrier rail

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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 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 | www.wago.com/210-112 |
| 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; silver-colored | www.wago.com/210-115 |
| 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

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

System enclosure

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| 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 |
|--|--|

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|--|--|
| 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 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 |

Downloads

Documentation

Manual

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| | | | |
|---|-------------------------|-----------------|----------|
| System Manual WAGO I/O System 750/753 Decentralized Automation Technology | V 3.3.3 2023 年8月29 日 | pdf 8.7 MB | Download |
| Product Manual 4-channel, 0-20mA, single-ended | V 2.0.0 2023 年7月14 日 | pdf 3.0 MB | Download |
| System Manual Series 750/753 Online HTML | | URL | Download |
| Bid Text | | | |
| 753-453 X81 - Datei | 2019 年2月19 日 | xml 4.6 kB | Download |
| 753-453 doc - Datei | 2017 年10月17 日 | doc 29.2 kB | Download |
| Instruction Leaflet | | | |
| CCC Ex (Additional information) WAGO-I/O-SYSTEM *750-****/* | 2023 年4月26 日 | pdf 163.6 kB | Download |
| System Description | | | |
| Overview on WAGO-I/O-SYSTEM 750 approvals | | pdf 223.5 kB | Download |
| 750/753 Series I/O-System – General Product Information | | pdf 976.2 kB | Download |
| Additional Information | | | |
| Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging | V 1.1.0 2022 年8月18 日 | pdf 2.2 MB | Download |
| CAD/CAE-Data | | | |
| CAD data | | | |
| 2D/3D Models 753-453 | | URL | Download |
| CAE data | | | |
| WSCAD Universe 753-453 | | URL | Download |

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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 753-453

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

Installation Notes

Product family

WAGO I/O System 750/753

[Show all products from the family](#)

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