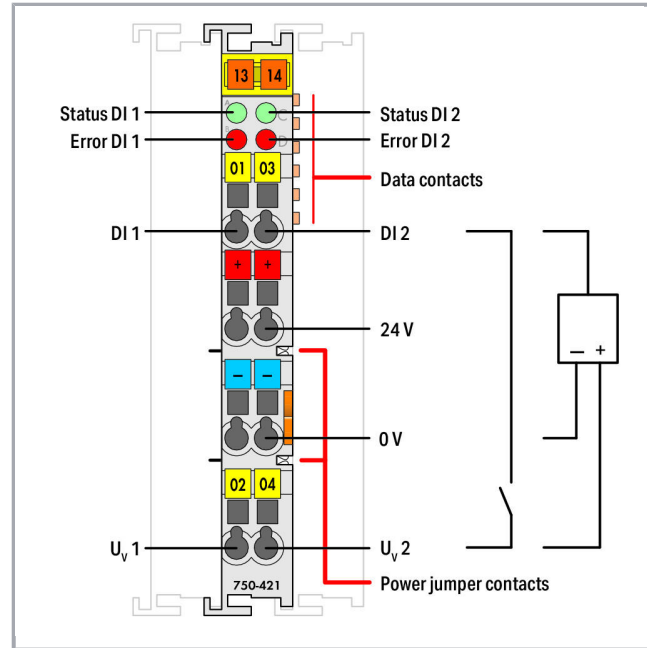


Data sheet | Item number: 750-421

2-channel digital input; 24 VDC; 3 ms; Diagnostics; light gray

www.wago.com/750-421



RoHS Compliant

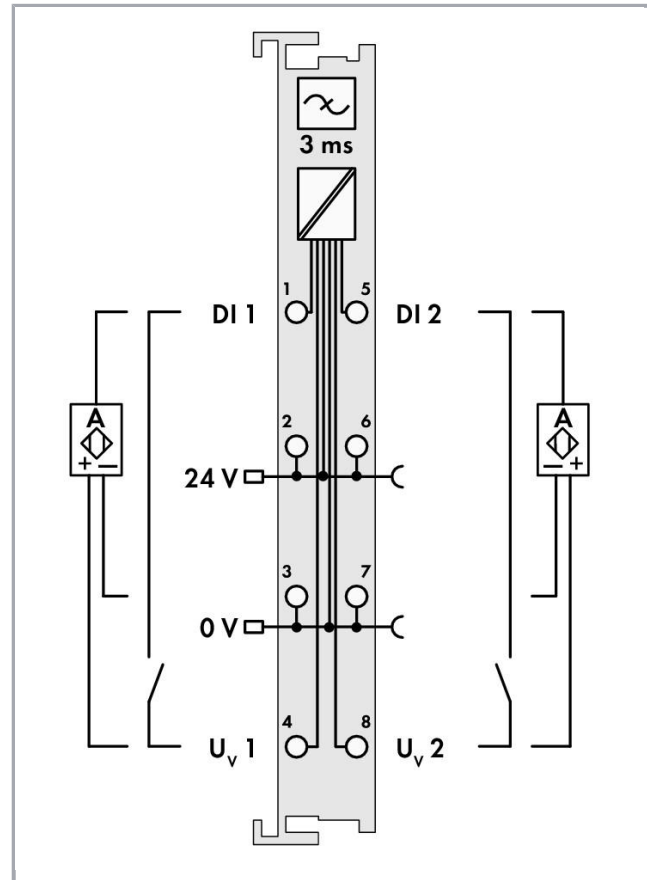
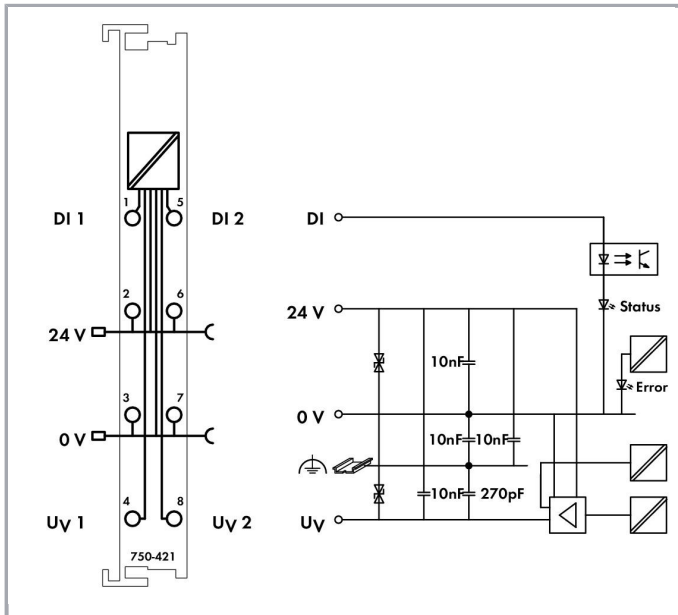
[BOMcheck.net](https://www.bomcheck.net)

Color:

Subject to changes.

WAGO Kontakttechnik GmbH & Co. KG
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Do you have any questions about our products?
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Item description

The digital input module receives control signals from digital field devices and supplies sensors with power protected against short circuits. The module transfers the control signals and other information via fieldbus coupler to a supervisory control.

Each input module has a noise-rejection filter.

Each sensor can be supplied separately. A short circuit to ground is indicated as an error/fieldbus failure and a message is sent to the supervisory control.

The error is canceled automatically after it has been rectified.

Field and system levels are electrically isolated.

Data

Technical Data

| | |
|-----------------------------------|---|
| Number of digital inputs | 2 |
| Total number of channels (module) | 2 |

Subject to changes.



| | |
|--|---|
| Type of signal | Voltage |
| Type of signal voltage | DC 24 V |
| Sensor supply voltage | DC 24 V; short-circuit-protected, isolated channels |
| Sensor connection | 2 x (2-conductor, 3-conductor) |
| Input characteristic | high-side switching |
| Input filter (digital) | 3 ms |
| Input current per channel for signal (1) typ. | 3.7 mA |
| Output current per channel | 0.5 A |
| Short-circuit current | 1.5 A, undulating because of thermal overload protection |
| Voltage range for signal (0) | -3 ... +5 VDC |
| Voltage range for signal (1) | 15 ... 30 VDC |
| Diagnostics | Short circuit, automatic acknowledgement after error rectified |
| Max input data width (internal) | 4 Bit |
| System supply voltage | DC 5 V; via data contacts |
| Current consumption, system supply (5 V) | 12 mA |
| Field supply voltage | DC 24 V (-25 ... +30 %); über Leistungskontakte (Einspeisung über Messerkontakt; Weiterleitung über Federkontakt) |
| Isolation | 500 V system/supply |
| Indicators | LED (A, C) green: Status DI 1, DI 2; LED (B, D) red: Error DI 1, DI 2 |
| 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 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 |

Subject to changes.

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Do you have any questions about our products?
 We are always happy to take your call at +49 (571) 887-44222.

Mechanical data

| | |
|------------------|-------------|
| Type of mounting | DIN-35 rail |
|------------------|-------------|

Material Data

| | |
|--------------------|------------------------------|
| Color | light gray |
| Housing material | Polycarbonate, polyamide 6.6 |
| Fire load | 1.229 MJ |
| Weight | 49.8 g |
| Conformity marking | CE |

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 |

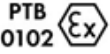

Commercial data

| | |
|--------------------|-----------------|
| Product Group | 15 (Remote I/O) |
| Packaging type | BOX |
| Country of origin | DE |
| GTIN | 4045454495008 |
| Customs Tariff No. | 85389099990 |


Subject to changes.

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 |

Country specific Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|---|--------------------------|-----------------------------|
|  | KC National Radio Research Agency | Article 58-2, Clause 3 | MSIP- REM-W43- DIM750 |

Ship Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|---|---|--------------------------|--------------------------|
|  | ABS American Bureau of Shipping | - | 19- HG1821926 |
|  | BV Bureau Veritas S.A. | - | 13453/DO BV |
|  | DNV GL Det Norske Veritas, Germanischer Lloyd | - | TAA0000194 |
|  | KR Korean Register of Shipping | - | KR HMB05880- AC001 |
| | LR Lloyds Register | - | 02/20026 (E6) |

Subject to changes.



| | | | |
|--|----------------------------------|---|----------|
|  | NK Nippon Kaiji Kyokai | - | TA17255M |
|--|----------------------------------|---|----------|




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







| | | | |
|--|----------------------------------|---|-------------|
|  | RINA RINA Germany GmbH | - | ELE066419XG |
|--|----------------------------------|---|-------------|

UL-Approvals

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

Compatible products









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 | www.wago.com/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 | www.wago.com/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 | 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 |








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| | | |
|--|--|--|
|  | Item no.: 210-118 Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715 | www.wago.com/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; silver-colored | www.wago.com/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 | 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 | 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 | 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 | 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 | www.wago.com/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; white | www.wago.com/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; yellow | www.wago.com/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; red | www.wago.com/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; blue | www.wago.com/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; gray | www.wago.com/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; orange | www.wago.com/2009-145/000-012 |
|  | Item no.: 2009-145/000-023 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; green | www.wago.com/2009-145/000-023 |

Subject to changes.










| | | |
|--|--|--|
|  | <p>Item no.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; violet</p> | www.wago.com/2009-145/000-024 |
|  | <p>Item no.: 248-501 Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card</p> | www.wago.com/248-501 |
|  | <p>Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow</p> | www.wago.com/248-501/000-002 |
|  | <p>Item no.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red</p> | www.wago.com/248-501/000-005 |
|  | <p>Item no.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue</p> | www.wago.com/248-501/000-006 |
|  | <p>Item no.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray</p> | www.wago.com/248-501/000-007 |
|  | <p>Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange</p> | www.wago.com/248-501/000-012 |
|  | <p>Item no.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green</p> | www.wago.com/248-501/000-017 |
|  | <p>Item no.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green</p> | www.wago.com/248-501/000-023 |
|  | <p>Item no.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet</p> | www.wago.com/248-501/000-024 |
|  | <p>Item no.: 750-100 Marker card; as a DIN A4 sheet; plain; white</p> | www.wago.com/750-100 |
|  | <p>Item no.: 750-103 Group marker carrier</p> | www.wago.com/750-103 |
|  | <p>Item no.: 750-106 Group marker carrier</p> | www.wago.com/750-106 |
| shield connection | | |
|  | <p>Item no.: 790-108 Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm</p> | www.wago.com/790-108 |

Item no.: 790-116

Subject to changes.

| | | |
|--|---|--|
|  | 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.: 790-140 Shield clamping saddle; diameter of compatible conductor | www.wago.com/790-140 |
|  | Item no.: 790-208 Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm | www.wago.com/790-208 |
|  | 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 |
| Supply module | | |
|  | Item no.: 750-601 Power Supply; 24 VDC; fuse holder; light gray | www.wago.com/750-601 |
|  | Item no.: 750-602 Power Supply; 24 VDC; light gray | www.wago.com/750-602 |
|  | Item no.: 750-610 Power Supply; 24 VDC; fuse holder; Diagnostics | www.wago.com/750-610 |
|  | Item no.: 750-612 Power Supply; 0 ... 230 V AC/DC; light gray | www.wago.com/750-612 |
| system box | | |
|  | Item no.: 850-804 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip | www.wago.com/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 | www.wago.com/850-804/000-001 |
|  | Item no.: 850-805 IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip | www.wago.com/850-805 |
|  | 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 |

Subject to changes.

| | | |
|--|--|--|
|  | 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.: 850-826/002-000 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.: 850-827 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.: 850-828 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.: 850-828/002-000 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.: 850-834 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

| | | | |
|--|---------|---------------|----------|
| 2-channel, 24VDC, 3.0ms high-side switching, with diagnostics | V 1.2.0 | pdf 2.4 MB | Download |
|--|---------|---------------|----------|

Bid Text

| | | | |
|------------------------|--------------|----------------|----------|
| 750-421 doc - Datei | Jul 12, 2017 | doc 27.1 kB | Download |
|------------------------|--------------|----------------|----------|

Subject to changes.



| | | | |
|------------------------|--------------|---------------|----------|
| 750-421 X81 - Datei | Feb 19, 2019 | xml 4.8 kB | Download |
|------------------------|--------------|---------------|----------|

Additional Information

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

System Description

| | | | |
|--|---------|---------------|----------|
| Design Notes Basic conditions and recommendations for higher operational safety | V 2.0.0 | pdf 1.5 MB | Download |
|--|---------|---------------|----------|

| | | | |
|--|---------|---------------|----------|
| Use in Hazardous Environments Term definition, marking and installation regulations | V 1.0.0 | pdf 1.0 MB | Download |
|--|---------|---------------|----------|

| | | | |
|---|--|-----------------|----------|
| Overview on WAGO-I/O-SYSTEM 750 approvals | | pdf 780.2 kB | Download |
|---|--|-----------------|----------|

| | | | |
|---|--|---------------|----------|
| 750/753 Series I/O-System – General Product Information | | pdf 1.7 MB | Download |
|---|--|---------------|----------|

CAD/CAE-Data

CAD data

| | | | |
|----------------------|--|-----|----------|
| 2D/3D Models 750-421 | | URL | Download |
|----------------------|--|-----|----------|

CAE data

| | | | |
|---------------------------|--|--|----------|
| EPLAN Data Portal 750-421 | | | Download |
|---------------------------|--|--|----------|

| | | | |
|------------------------|--|--|----------|
| WSCAD Universe 750-421 | | | Download |
|------------------------|--|--|----------|

Device Files

Device Driver

| | | | |
|--|-------------------------|---------------|----------|
| WAGO USB Service Kabel Treiber / Serie 750 und 857 | 6.5.3.0 Sep 10, 2014 | zip 4.8 MB | Download |
|--|-------------------------|---------------|----------|

Installation Notes

Subject to changes.



Product family

750/753 Series – I/O System

[Show all products from the family](#)

Subject to changes.