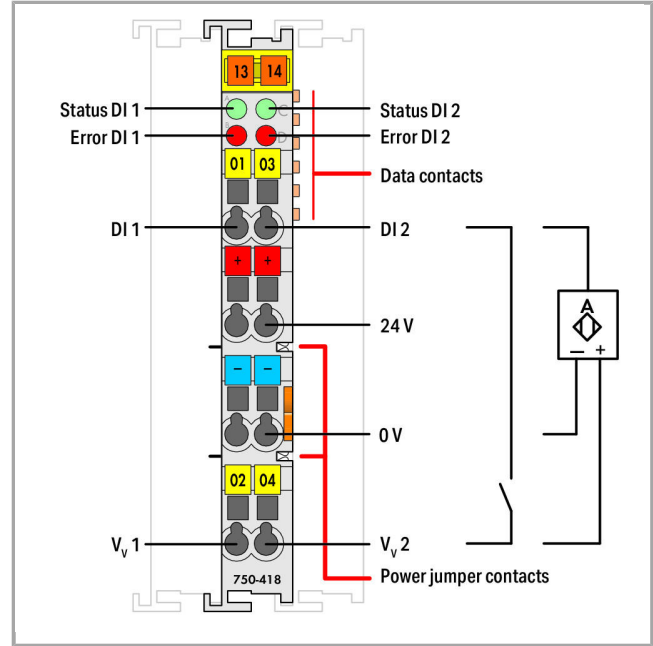
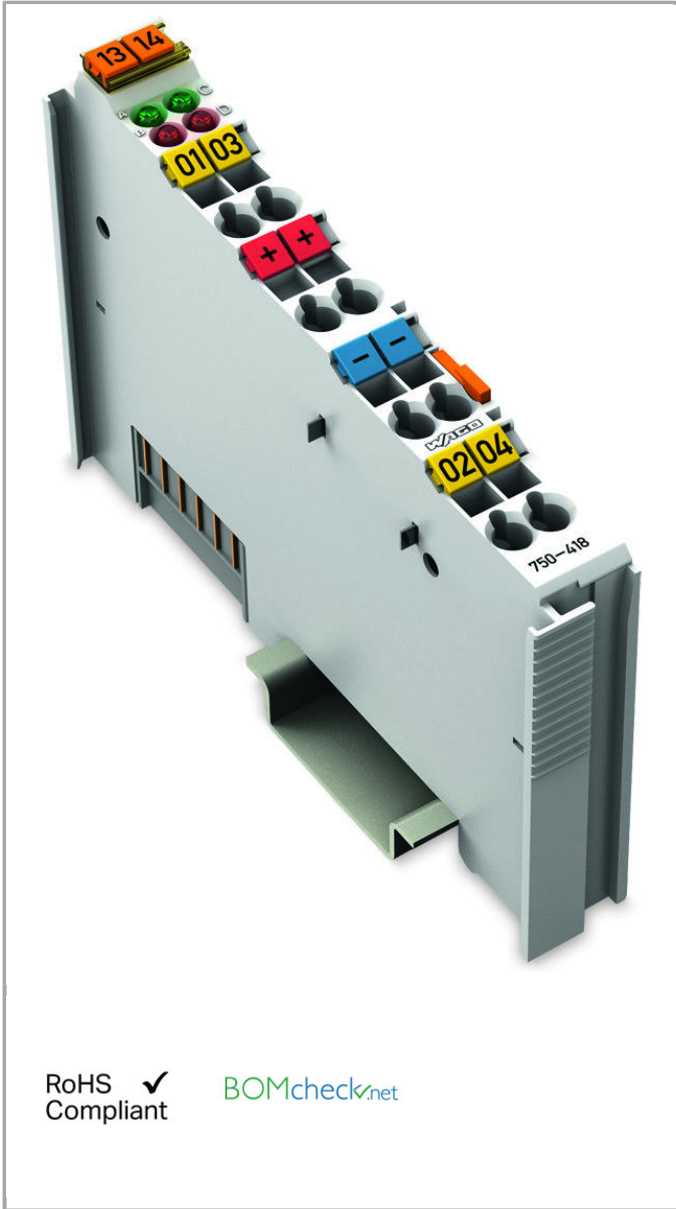


Data sheet | Item number: 750-418

2-channel digital input; 24 VDC; 3 ms; Acknowledgement; Diagnostics

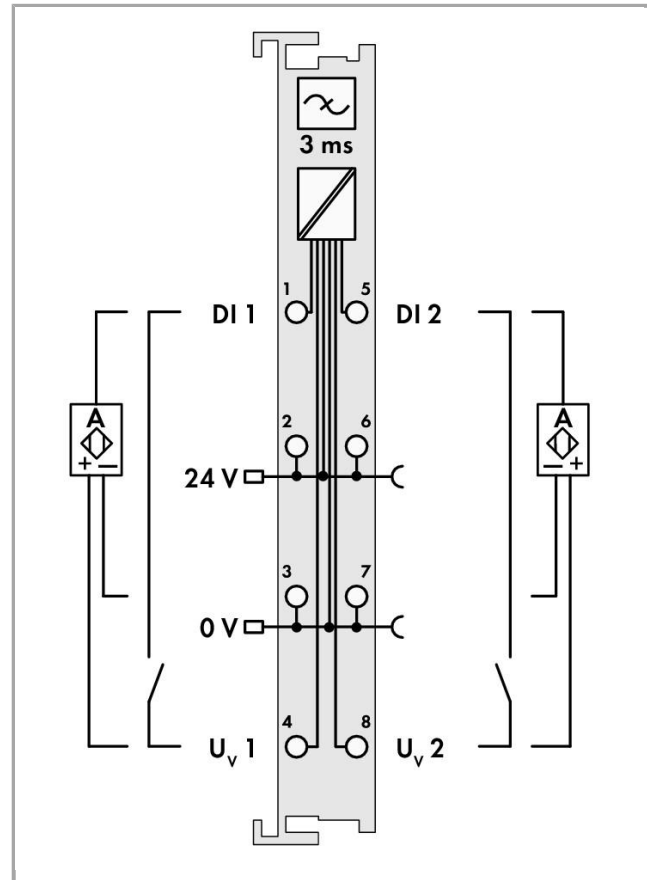
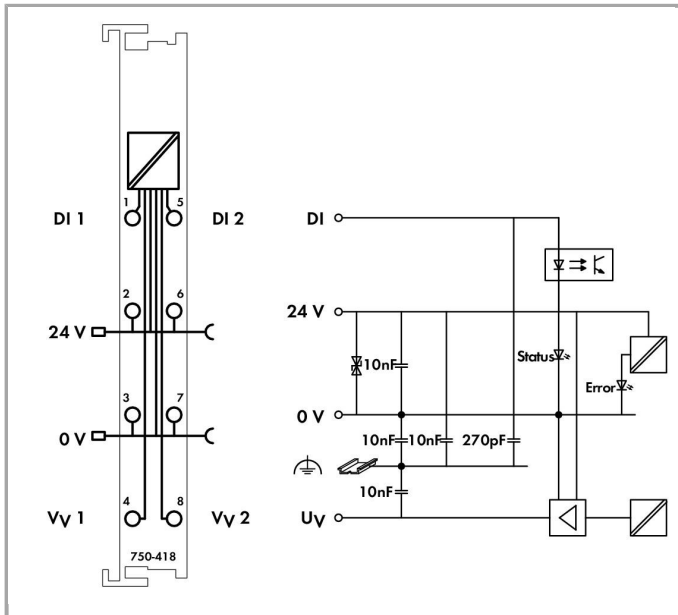


750-418



RoHS Compliant

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



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 via the control system after it has been rectified. (Active acknowledgement by a user)

Field and system levels are electrically isolated.

Data

Technical Data

| | |
|-----------------------------------|---|
| Number of digital inputs | 2 |
| Total number of channels (module) | 2 |
| Type of signal | Voltage |
| 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, active acknowledgement after error rectified |
| Max input data width (internal) | 4 Bit |
| Max output data width (internal) | 4 Bit |
| System supply voltage | DC 5 V; via data contacts |
| Current consumption, system supply (5 V) | 12 mA |
| System and sensor supply voltage |) |
| Field supply voltage | DC 24 V (-25 ... +30 %); über Leistungskontakte (Einspeisung über Messerkontakt; Weiterleitung über Federkontakt) |
| Isolation field – system | 500 VAC (1 min) |
| 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 |

Mechanical data

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

Material Data

| | |
|------------------|------------------------------|
| Color | light gray |
| Housing material | Polycarbonate, polyamide 6.6 |
| Weight | 49.5 g |

Conformity marking

1

Environmental Requirements

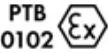


| | |
|--|---|
| Surrounding air (operating) temperature | 0 ... 55 °C |
| Surrounding air (storage) temperature | -40 ... 85 °C |
| Protection class | IP20 |
| Degree of pollution (5) | 2 per IEC 61131-2 |
| Operating altitude | 0 ... 2000 m |
| Mounting position | horizontal (standing/lying) or vertical |
| 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 | 4017332640855 |
| 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- DIM750 |

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

















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




















Compatible products

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 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 | /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 7035); 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 |
| 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 | /000-002 | 2009-145 |
|  | Item no.: 2009-145/000-005 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 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 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 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 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 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 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 |
| Supply module | | |
|  | Item no.: 750-601 Power Supply; 24 VDC | 750-601 |
|  | Item no.: 750-602 Power Supply; 24 VDC | 750-602 |
|  | Item no.: 750-610 Power Supply; 24 VDC; fuse holder; Diagnostics | 750-610 |
|  | Item no.: 750-612 Power Supply; 0 ... 230 V AC/DC | 750-612 |
| 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 |
| 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 |



Downloads

Documentation

Manual

| | | | |
|---|---------|---------------|----------|
| 2-channel, 24VDC, 3.0ms 2- to 3-wire connection, high-side switching, with diagnostics (acknowledgement) | V 1.1.0 | pdf 1.9 MB | Download |
|---|---------|---------------|----------|

Bid Text

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|-----------------------|-------------|----------------|----------|
| 750-418 IO-Klemmen | Apr 4, 2012 | doc 27.1 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

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

CAD data

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Device Files

Device Driver

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

750/753 Series I/O-System

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Subject to changes.
