

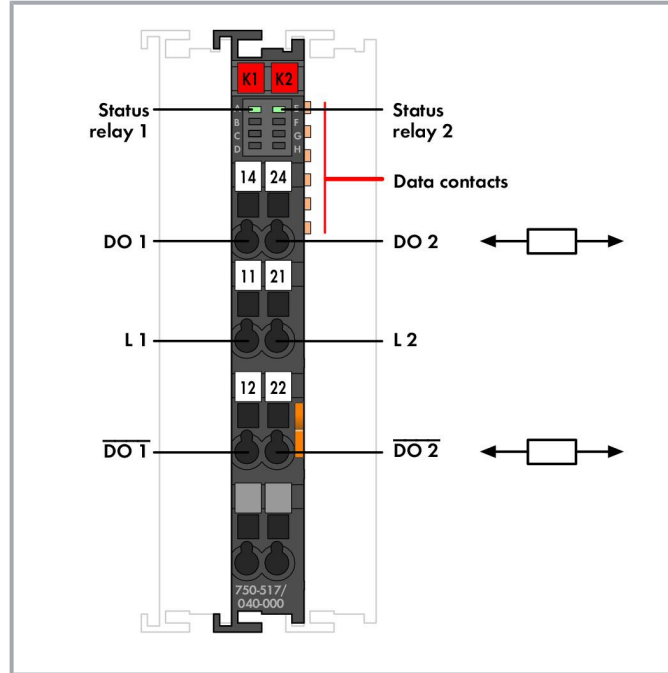
Data sheet | Item number: 750-517/040-000

2-channel relay output; AC 250 V; 1 A; 2 changeover contacts; Extreme

www.wago.com/750-517/040-000



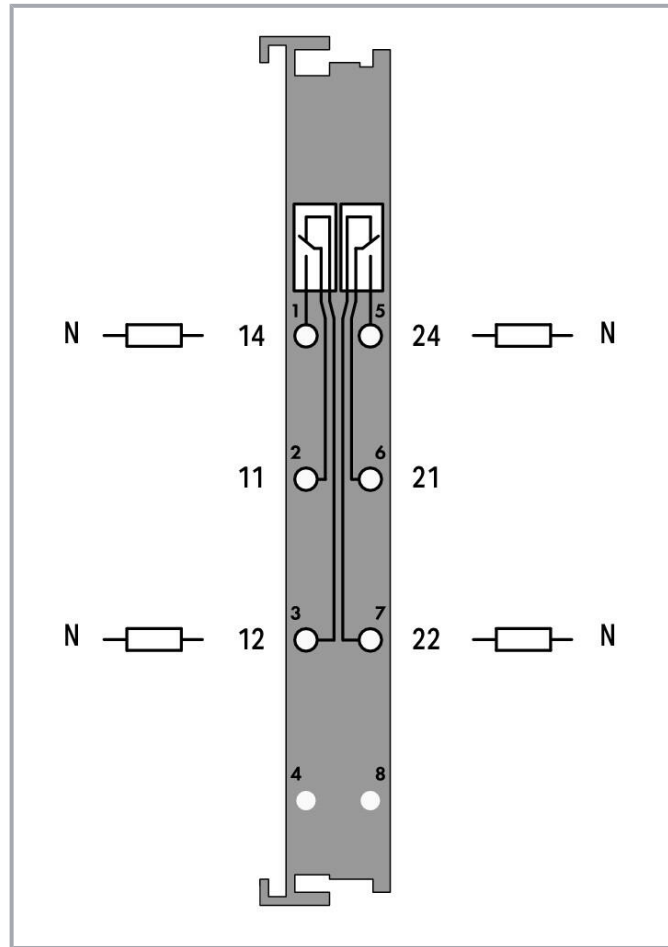
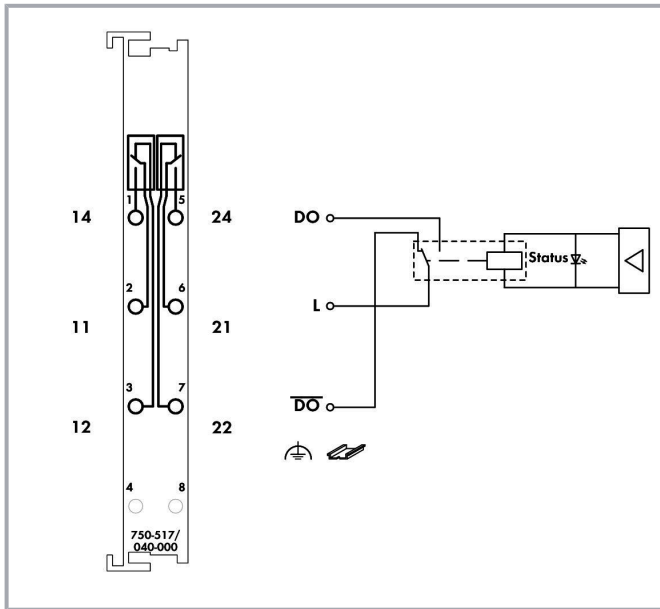
Color: —



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

WAGO GmbH & Co. KG
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Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

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Item description

This digital output module transmits control signals from the automation device to the connected actuators.

The internal system voltage triggers the relay.

The NO contacts are electrically isolated.

The state of the relay is indicated by a LED.

The device is ideal for operation in extreme environments thanks to:

- An extended temperature range
- Greater immunity to impulse voltages and electromagnetic interference
- Higher vibration and shock resistance

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



Data

Technical data

| | |
|---|--|
| Number of digital outputs | 2 |
| Total number of channels (module) | 2 |
| Signal type | Digital |
| Actuator connection | 2 x (1-wire) |
| Output circuit design | 2 changeover contacts Relay |
| Output characteristic | Potential-free |
| Switching frequency (max.) | 0.1 Hz; Nominal load |
| Switching voltage (max.) | 250 VAC, 300 VDC |
| Switching current (max.) | 1 A |
| Switching current (note) | 1 A at 250 VAC and 40 VDC; 0.15 A at 300 VDC |
| Switching voltage (min.) | 12 V |
| Switching current (min.) | 100 mA |
| Pull-in time (max.) | 8 ms |
| Drop-out time (max.) | 4 ms |
| Electrical switching operations (min.) (at max. resistive load) | 1 x 10 ⁶ switching operations |
| Mechanical switching operations (min.) (at max. resistive load) | 5 x 10 ⁶ switching operations |
| Output data width (internal) max. | 2 bits |
| Supply voltage (system) | 5 VDC; via data contacts |
| Current consumption (5 V system supply) | 90 mA |
| Isolation, Field/System | per EN 61010-2-201: 3510 VAC/1 min |
| Dielectric strength | 2.5 kV (AC)/3.5 kV (DC); per EN 60870-2-1 |
| Rated surge voltage | 5.0 kV (EN 60870-2-1 / Class VW3); 4.0 kV (UL 508); 6.4 kV (EN 61010-1) |
| Indicators | LED (A, E) green: Status relay 1, relay 2 |
| Overvoltage category | Nominal voltage 230 V: III (EN 61010-1 / up to 2.000 m); II (EN 61010-1 / up to 5.000 m) |

Connection data

| | |
|---------------------------------------|--|
| Connection technology: inputs/outputs | 6 x CAGE CLAMP [®] |
| Connection type 1 | Inputs/outputs |
| Solid conductor | 0.25 ... 2.5 mm ² / 24 ... 14 AWG |
| Fine-stranded conductor | 0.25 ... 2.5 mm ² / 24 ... 14 AWG |
| Strip length | 8 ... 9 mm / 0.31 ... 0.35 inches |

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Physical data

| | |
|-----------------------------------|------------------------|
| Width | 12 mm / 0.472 inches |
| Height | 100 mm / 3.937 inches |
| Depth | 67.8 mm / 2.669 inches |
| Depth from upper-edge of DIN-rail | 60.6 mm / 2.386 inches |

Mechanical Data

| | |
|---------------|-------------|
| Mounting type | DIN-35 rail |
|---------------|-------------|

Material Data

| | |
|--------------------|------------------------------|
| Color | dark gray |
| Contact material | Ag alloy |
| Housing material | Polycarbonate; polyamide 6.6 |
| Fire load | 1.018 MJ |
| Weight | 53.5 g |
| Conformity marking | CE |

Environmental requirements

| | |
|--|--|
| Ambient temperature (operation) | -40 ... +70 °C |
| Ambient temperature (storage) | -40 ... +85 °C |
| Protection type | IP20 |
| Pollution degree | 2 (EN 61010-1) |
| Operating altitude | Without temperature derating: 0 ... 2000 m; with temperature derating: 2000 ... 5000 m (0.5 K/100 m); 5000 m (max.) |
| Mounting position | Horizontal (standing/lying); vertical |
| Relative humidity (without condensation) | 95 % |
| Relative humidity (with condensation) | Short-term condensation per Class 3K7/IEC EN 60721-3-3 and E-DIN 40046-721-3 (except for wind-driven precipitation, water and ice formation) |
| Vibration resistance | Per IEC 60068-2-6 (acceleration: 5g), EN 60870-2-2, IEC 60721-3-1, -3, EN 50155; EN 61373 |
| Shock resistance | Per IEC 60068-2-27 (15g/11 ms/half-sine/1,000 shocks; 25g/6 ms/1,000 shocks), EN 50155, EN 61373 |
| EMC immunity to interference | per EN 61000-6-1, -2; EN 61131-2; marine applications; EN 50121-3-2; EN 50121-4, -5; EN 60255-26; EN 60870-2-1; EN 61850-3; IEC 61000-6-5; IEEE 1613; VDEW: 1994 |
| EMC emission of interference | Per EN 61000-6-3, -4, EN 61131-2, EN 60255-26, marine applications, EN 60870-2-1, EN 61850-3, EN 50121-3-2, EN 50121- |

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4, -5

| | |
|--|---------------------------------------|
| 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 | 27-24-26-04 |
| eCl@ss 9.0 | 27-24-26-04 |
| ETIM 8.0 | EC001599 |
| ETIM 7.0 | EC001599 |
| PU (SPU) | 1 pcs |
| Packaging type | box |
| Country of origin | DE |
| GTIN | 4050821460244 |
| Customs tariff number | 85371098990 |

Environmental Product Compliance

| | |
|---|---|
| CAS-No. | 1303-86-2 1317-36-8 7439-92-1 |
| REACH Candidate List Substance | Diboron trioxide Lead Lead monoxide Perfluorobutane sulfonic acid (PFBS) and its salts |
| RoHS Compliance Status | Compliant, With Exemption |
| RoHS Exemption | 6(c) 7(a) 7(c)-I 7(c)-II |
| SCIP notification number (Bulgaria) | e2594b6e-0dd6-4624-8777-f51f54a97472 |
| SCIP notification number (Czech Republic) | c166b752-c47d-48f1-8016-a9e8d653bc9c |

Approvals / Certificates






General approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|------|----------|--------------------------|------------------|
| | CCC | CNCA-C23-01 | 2020312310000212 |



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| | | | |
|--|--|------------------------|---|
|  | CNEX | | (Ex ec[iaGa]IIC T4 Gc, [Ex ia Da]IIC, [Ex ia Ma]) |
|  | EAC Brjansker Zertifizierungsstelle | TP TC 020/2011 | EAC RU C-DE.AM02. B.00087/19 |
|  | EAC Brjansker Zertifizierungsstelle | TP TC 004/2011 | EAC RU C-DE.AM02. B.00088_19 |
|  | KC National Radio Research Agency | Article 58-2, Clause 3 | MSIP-REM-W43- DOM750 |
|  | 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 | - | 22-2208829- PDA |
|  | DNV DNV Germany GmbH | DNV-CG-0339, Aug.2021 | TAA00000Y7 |
| | LR Lloyds Register | - | LR22276776TA |


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



PRS
Polski Rejestr Statków

TE/2215
/880590/18

Approvals for hazardous areas

| Logo | Approval | Additional Approval Text | Certificate name |
|--|---|--------------------------|---|
|  | ATEX TUEV Nord Cert GmbH | EN 60079-0 | TUEV 17 ATEX 193969X (II 3 G Ex ec IIC T4 Gc) |
|  | CCC CNEX | CNCA-C23-01 | 2020312310000212 (Ex ec [iaGa]IIC T4 Gc, [Ex ia Da]IIC, [Ex ia Ma]) |
|  | EAC Brjansker Zertifizierungsstelle | TP TC 012/2011 | EAC RU C-DE.AM02.B.00163 /19 (2Ex e nC IIC T4 Gc X) |
|  | IECEX TUEV Nord Cert GmbH | IEC 60079-0 | IECEX TUN 16.0046X (Ex ec IIC T4 Gc) |
|  | UKEx WAGO GmbH & Co. KG | EN 60079-0 | UKCA_WAGO22UKEX005X_ec nC |
|  | UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | UL 121201 | E198726 Sec.1 |

Optional accessories

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

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

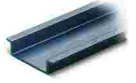
| | | |
|--|--|--|
|  | Item no.: 790-124 Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm | www.wago.com/790-124 |
|  | Item no.: 790-108 Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm | www.wago.com/790-108 |
|  | Item no.: 790-140 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 |
| 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 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 |

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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

Marking accessories

Marker carrier



Item no.: 750-103

Group marker carrier

www.wago.com/750-103

Marker



Item no.: 2009-145/000-006

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue www.wago.com/2009-145/000-006



Item no.: 2009-145

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; 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; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow www.wago.com/2009-145/000-002



Item no.: 2009-145/000-007

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray www.wago.com/2009-145/000-007



Item no.: 2009-145/000-005

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red www.wago.com/2009-145/000-005



Item no.: 2009-145/000-012

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; 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; 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

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

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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

Group marker carrier



Item no.: 750-107
Group marker carrier

www.wago.com/750-107

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

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

| | | |
|--|--|--|
|  | 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

| | | | |
|---|------------------------|---------------|----------|
| Product Manual 2DO 230 V AC 1.0 A, Relay 2CO, potential-free /XTR for eXTReme environmental conditions, potential-free, 2 changeover contacts | V 1.3.1 2022 Aug 29 | pdf 2.6 MB | Download |
|---|------------------------|---------------|----------|

Bid Text

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| | | | |
|---|------------------------|-----------------|----------|
| 750-517/040-000 X81 - Datei | 2019 Feb 19 | xml 6.4 kB | Download |
| 750-517/040-000 doc - Datei | 2015 Oct 28 | doc 27.6 kB | Download |
| Instruction Leaflet | | | |
| CCC Ex (Additional information) WAGO-I/O-SYSTEM*750-****/*040-****Ex i XTR | 2023 Apr 26 | pdf 146.9 kB | Download |
| CCC Ex (Additional information) WAGO-I/O-SYSTEM *750-****/**40-**** | 2023 Apr 26 | pdf 148.1 kB | Download |
| System Description | | | |
| System Manual XTR Basic conditions and recommendations for higher operational safety | V 2.0.0 2022 Sep 14 | pdf 8.0 MB | Download |
| Overview on WAGO-I/O-SYSTEM 750 approvals | | pdf 789.0 kB | Download |
| 750 XTR Series I/O-System – General Product Information | | pdf 743.5 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 750-517/040-000 | | URL | Download |
| CAE data | | | |
| EPLAN Data Portal 750-517/040-000 | | URL | Download |
| WSCAD Universe 750-517/040-000 | | URL | Download |
| EPLAN Data Portal 750-517/040-000 | | URL | Download |
| WSCAD Universe 750-517/040-000 | | | |
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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 750-517/040-000

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2-channel relay output; AC 250 V; 1 A; 2 changeover contacts; Extreme

Installation Notes

Product family

WAGO I/O System 750 XTR

I/O-System 750 XTR: Dort automatisieren, wo jedes andere System an seine Grenzen stößt – und das zuverlässig und wirtschaftlich! XTR – dieses Kürzel im Systemnamen steht für extremen Schutz vor klimatischen Einflüssen, Schwingungen, Erschütterungen und Überspannungen.

[Show all products from the family](#)

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