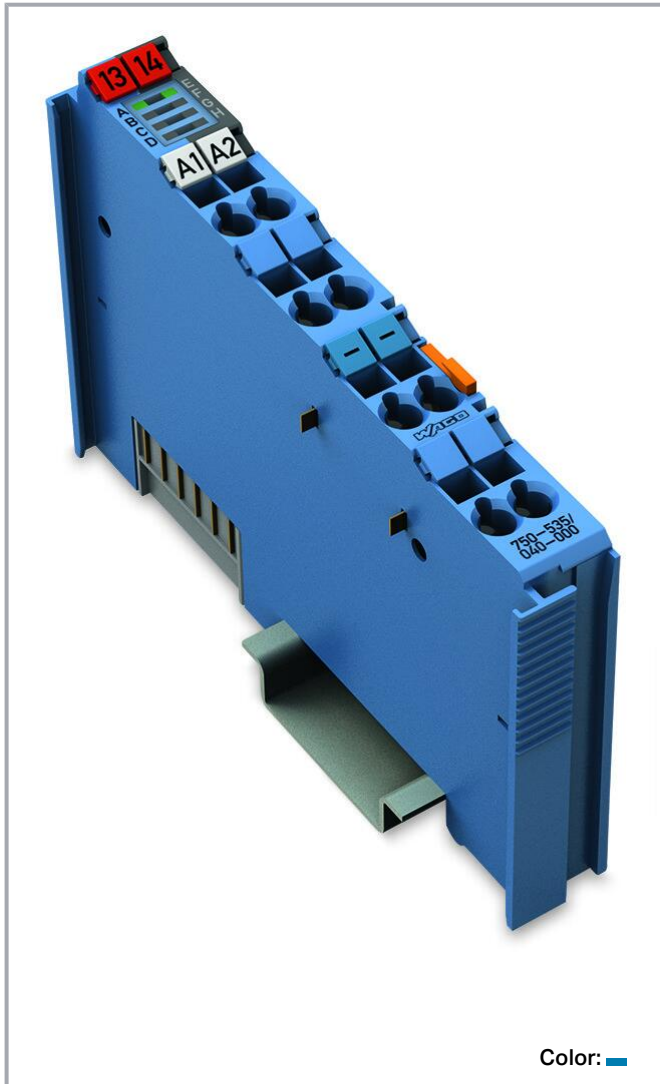


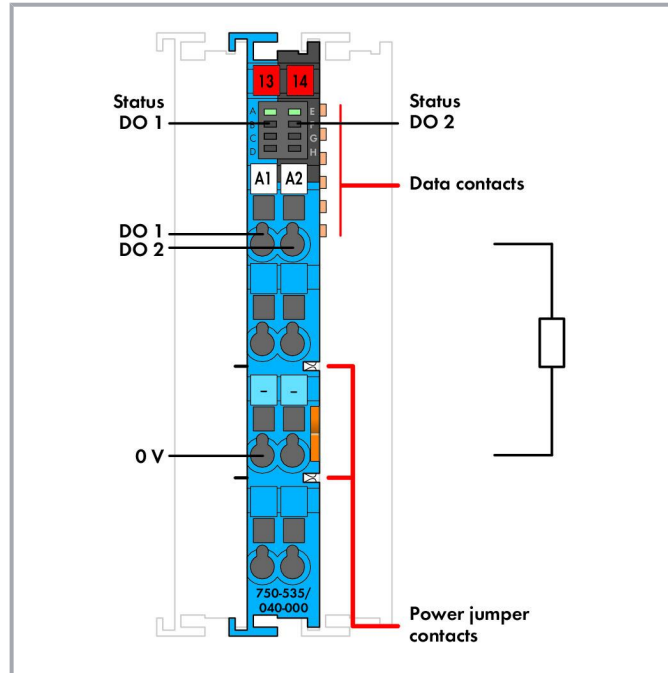
Data sheet | Item number: 750-535/040-000

2-channel digital output; 24 VDC; Intrinsically safe; Extreme

www.wago.com/750-535/040-000



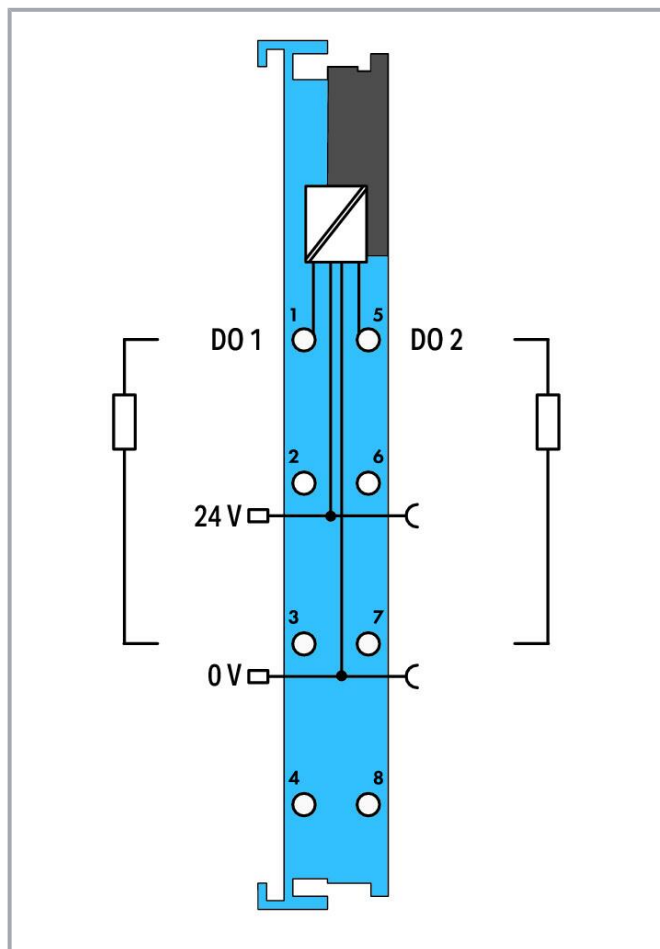
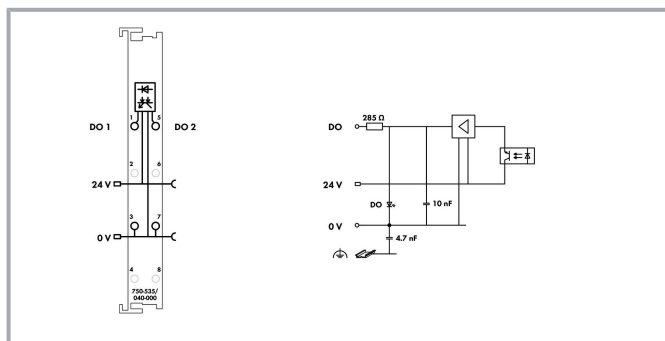
Color:



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Item description

This digital output module controls actuators operating in Zone 0+1 hazardous areas.

Intrinsically safe magnetic valves can be directly controlled.

The WAGO I/O System 750 XTR must be installed either in Zone 2 or in a non-hazardous area.

All outputs are electronically short-circuit-protected.

Indicators:

- Green LED (output status)

Field and system levels are electrically isolated.

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

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



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

Data

Notes

Note

The digital output module must only be operated via 24 VDC Ex i XTR power supply (750-606/040-000)!

General information (e.g., installation regulations) on explosion protection is available in the WAGO I/O System 750 XTR manuals!

Technical data

Number of digital outputs	2
Total number of channels (module)	2
Signal type	Digital
Signal type (voltage)	24 VDC
Actuator connection	2 x (2-wire)
Output characteristic	high-side switching
Switching frequency (max.)	1 kHz
Load type	Resistive, inductive, lamp load
Internal resistance R_i	285 Ω
Power consumption $P_{max.}$	2.1 W (at 40 mA output current)
Output data width (internal) max.	2 bits
Intrinsic safety Ex i	yes
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	7 mA
Supply voltage (field)	24 VDC; (Ex i XTR power supply: U_O = max. 26.8 V); via power jumper contacts (power supply via blade contact; transmission via spring contact)
Current consumption, field supply (module with no external load)	8.5 mA
Power loss P_i	1.1 W (at 40 mA output current)
Isolation	300 VAC system/supply
Dielectric strength	510 VAC/775 VDC; per EN 60870-2-1
Rated surge voltage	1 kV; Rated surge voltage between intrinsically safe and non-

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	intrinsically safe circuits: 1.5 kV (EN 60079-11)
Indicators	LED (A, E) green: Status DO 1, DO 2
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity (power jumper contacts)	1 A
Marking	ATEX/IECEx: II 3 (1) G Ex ec [ia Ga] IIC T4 Gc; II (1) D [Ex ia Da] IIIC; I (M1) [Ex ia Ma] I

Explosion protection

Ex standard	EN/IEC 60079-0, -7, -11
Safety-relevant data (circuit)	$U_o = 26.8 \text{ V}$; $I_o = 99.91 \text{ mA}$; $P_o = 669.43 \text{ mW}$; Linear characteristic curve
Reactances Ex ia IIC	$L_o = 1.1 \text{ mH}$; $C_o = 0.092 \text{ }\mu\text{F}$
Reactances Ex ia IIB	$L_o = 12 \text{ mH}$; $C_o = 0.72 \text{ }\mu\text{F}$
Reactances Ex ia IIA	$L_o = 21 \text{ mH}$; $C_o = 2.37 \text{ }\mu\text{F}$
Reactances Ex ia I	$L_o = 30 \text{ mH}$; $C_o = 3.85 \text{ }\mu\text{F}$
Reactances (note)	Reactances without accounting for the concurrence of capacitance (C_o) and inductance (L_o)

Connection data

Connection technology: inputs/outputs	8 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

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
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Material data

Color	blue
Housing material	Polycarbonate; polyamide 6.6
Fire load	0.974 MJ
Weight	47.5 g
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	-40 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Protection type	IP20
Pollution degree	2 per IEC 61131-2
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
Shock resistance	per IEC 60068-2-27 (15g/11 ms/half-sine/1,000 shocks; 25g/6 ms/1,000 shocks), EN 61373
EMC immunity to interference	per EN 61000-6-1, -2, EN 61131-2, marine applications, 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
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

eCl@ss 10.0	27-24-26-04
eCl@ss 9.0	27-24-26-04
ETIM 8.0	EC001599

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ETIM 7.0	EC001599
Recupel Type	
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4055143649537
Customs tariff number	85371098990

Environmental Product Compliance

CAS-No.	11120-22-2 1303-86-2 1317-36-8 7439-92-1
REACH Candidate List Substance	Diboron trioxide Lead Lead monoxide Lead silicate 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 (Austria)	0b2ceb78-ac81-4988-8b7a-377dc156a965
SCIP notification number (Belgium)	1635edb6-49e0-4123-9d28-88b169029d69
SCIP notification number (Bulgaria)	ec71e56a-09f1-43b3-b4df-6147579683ee
SCIP notification number (Czech Republic)	87752587-b81c-4481-adee-b573d8158335
SCIP notification number (Denmark)	a5d00dfb-4d13-44d6-b0e7-6baa160ef3b7
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SCIP notification number (France)	62124c86-10f3-426e-a127-9202e4418043
SCIP notification number (Germany)	b0e931f6-15c4-4328-a13f-7dbffa6958d3
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SCIP notification number (Romania)	b2241bbc-0406-48c7-839b-290bcb932ee0
SCIP notification number (Sweden)	36f6720f-0810-4ac9-8089-eeb446d85f48

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Notes

Note	The digital output module must only be operated via 24 VDC Ex i XTR power supply (750-606/040-000)!
	General information (e.g., installation regulations) on explosion protection is available in the WAGO I/O System 750 XTR manuals!

Explosion protection

Marking	ATEX/IECEx: II 3 (1) G Ex ec [ia Ga] IIC T4 Gc; II (1) D [Ex ia Da] IIIC; I (M1) [Ex ia Ma] I
Safety-relevant data (circuit)	
Reactances Ex ia IIC	
Reactances Ex ia IIB	
Reactances Ex ia IIA	
Reactances Ex ia I	
Reactances (note)	

Technical data

Order Text	2-Channel Digital Output; 24 VDC; Intrinsically safe
Actuator connection	
Output characteristic	
Load type	
Intrinsic safety Ex i	
Supply voltage (field)	
Power consumption $P_{max.}$	
Power loss P_l	
Rated surge voltage	
Indicators	

Mechanical data

Mounting type	
---------------	--

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

Environmental requirements

Ambient temperature (operation)	-40 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Pollution degree	
Operating altitude	
Mounting position	
Relative humidity (with condensation)	
Vibration resistance	
Shock resistance	
EMC immunity to interference	
EMC emission of interference	
Exposure to pollutants	

Connection data

Connection type 1

Commercial data

Packaging type

Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCC CNEX	CNCA-C23-01	2020312310000212 (Ex ec[iaGa]IIC T4 Gc, [Ex ia Da]IIC, [Ex ia Ma]I)
	EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C-DE.AM02. B.00087/19
	UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 61010-2-201	E175199
	UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	-	E175199

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

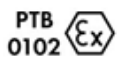
Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	EU-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 GL SE	-	TAA00000Y7
	LR Lloyds Register	-	LR22276776TA
	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_196484X (Ex ec[iaGa] IIC T4 Gc, [Ex iaDa] IIIC, [Ex iaMa] I)
	CCC CNEX	CNCA-C23-01	2020312310000212 (Ex ec[iaGa] IIC T4 Gc, [Ex iaDa] IIIC, [Ex iaMa] I)
	CCC CNEX	CNCA-C23-01	2020312310000212 (Ex ec[iaGa] IIC T4 Gc, [Ex iaDa] IIIC, [Ex iaMa] I)
	EAC	TP TC 012/2011	EAC RU C-DE.AM02.B.

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Brjansker Zertifizierungsstelle



00163/19 ([ExiaMa]I X,2Ex
e[iaGa]IIC T4Gc X,[ExiaDa]
IIC X)



IECEX
TUEV Nord Cert GmbH

IEC 60079-0

IECEX TUN 17.0005X (Ex
ec[iaGa] IIC T4 Gc, [Ex
iaDa] IIC, [Ex iaMa] I)



UL
Underwriters Laboratories Inc. (HAZARDOUS
LOCATIONS)

UL 121201

E198726 Sec.1

Optional accessories

Power supplies

Supply module



Item no.: 750-606/040-000
Power Supply; 24 VDC; Diagnostics; Intrinsically safe; Extreme

www.wago.com/750-606
/040-000

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

Carrier rail

Mounting accessories

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**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**

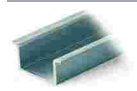
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored

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**

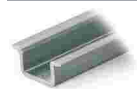
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored

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**

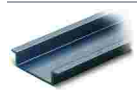
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored

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**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

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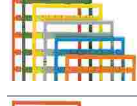
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	Item no.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	www.wago.com/2009-145
	Item no.: 2009-145/000-002 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 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
	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

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



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

Downloads
Documentation
Data sheet

750-535/040-000, 2DO 24 VDC Ex i XTR	pdf 202.2 kB	Download
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Manual

System Manual XTR Basic conditions and recommendations for higher operational safety	V 2.0.1 2023 Jun 22	pdf 7.2 MB	Download
Product Manual 2-channel, 24VDC, Ex i /XTR short-circuit protected, high-side switching	V 1.1.0 2020 Jun 8	pdf 3.1 MB	Download
System Manual Series 750/753 Online HTML		URL	Download

Bid Text

750-535/040-000 X81 - Datei	2019 Feb 19	xml 8.4 kB	Download
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750-535/040-000
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750-535/040-000	2018 Feb 8	doc	Download
doc - Datei		35.3 kB	

Instruction Leaflet

CCC Ex (Additional information)	2023 Apr 26	pdf	Download
WAGO-I/O-SYSTEM*750-****/*040-****Ex i XTR		146.9 kB	

System Description

System Manual XTR	V 2.0.1	pdf	Download
Basic conditions and recommendations for higher operational safety	2023 Jun 22	7.2 MB	
Overview on WAGO-I/O-SYSTEM 750 approvals		pdf	Download
		223.5 kB	
Intrinsically Safe XTR Modules – General Product Information		pdf	Download
		220.1 kB	

Additional Information

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

CAD/CAE-Data

CAD data

2D/3D Models 750-535/040-000	URL	Download
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CAE data

EPLAN Data Portal 750-535/040-000	URL	Download
EPLAN Data Portal 750-535/040-000	URL	Download
ZUKEN Portal 750-535/040-000	URL	Download

Asset Administration Shell

Asset Administration Shell 750-535/040-000	URL	Download
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Installation Notes

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



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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