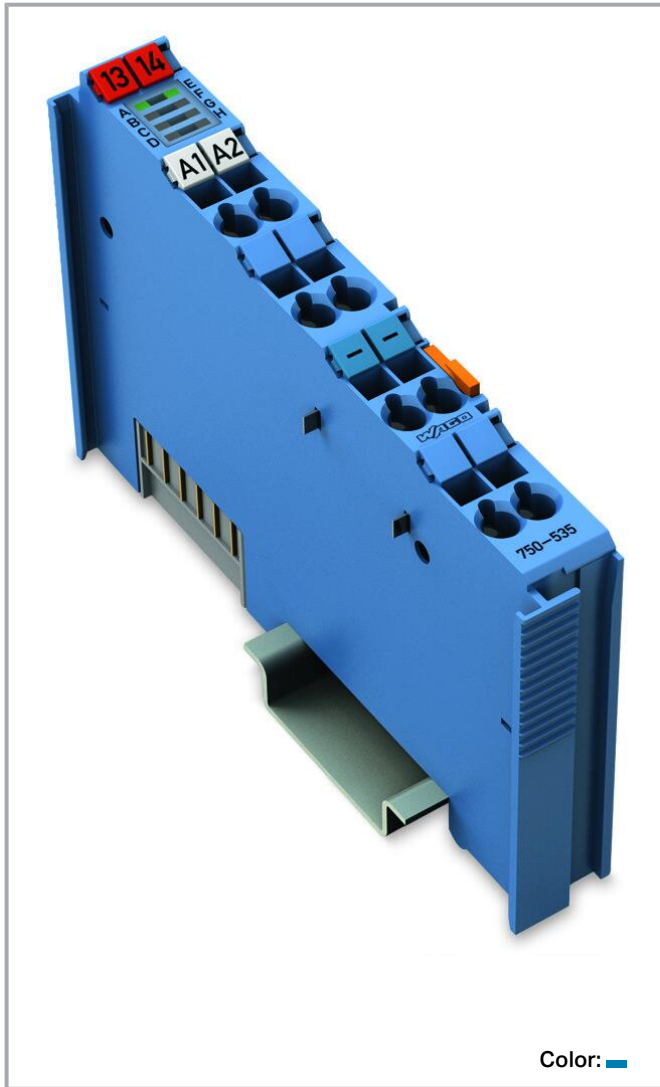


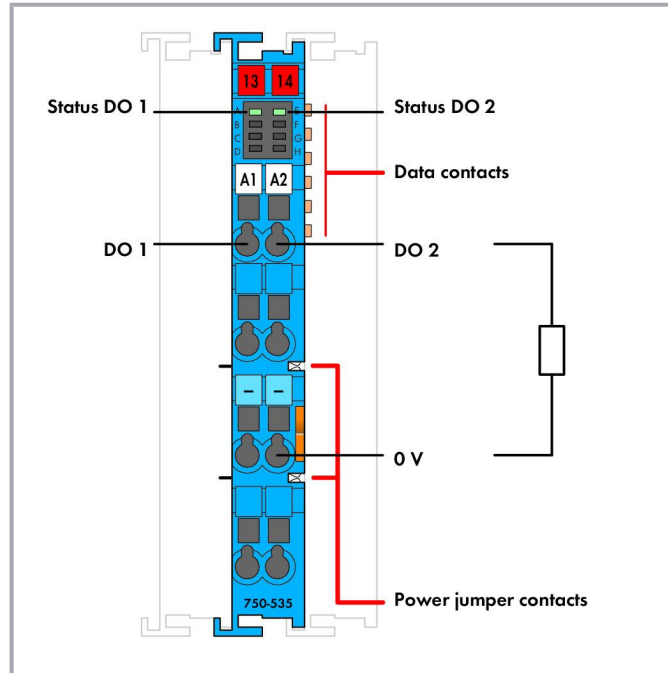
Data sheet | Item number: 750-535

2-channel digital output; 24 VDC; Intrinsically safe

www.wago.com/750-535



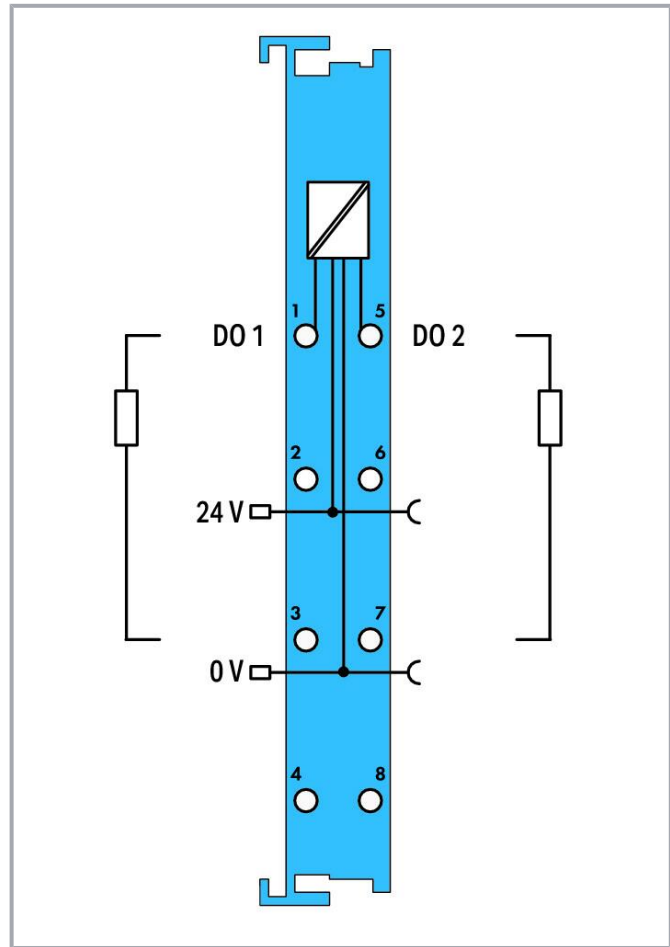
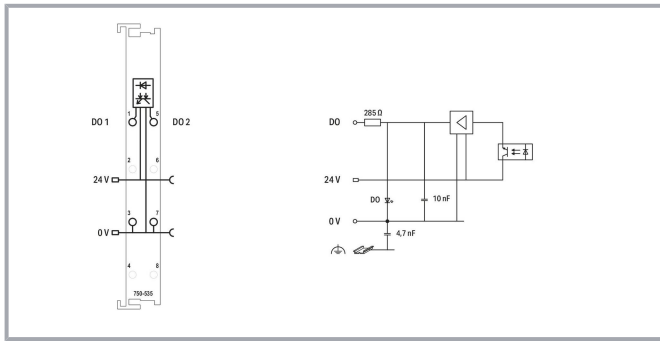
Color:



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

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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 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.

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



Data Notes

Note

The digital output module must only be operated via 24 VDC Ex II!

General information (e.g., installation regulations) on explosion protection is available in the WAGO I/O System 750 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 power supply: $U_O = \max. 27.3 \text{ V}$); 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
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

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



Explosion protection

Ex standard	EN IEC 60079-0, -7, -11
Safety-relevant data (circuit)	$U_o = 27.3 \text{ V}$; $I_o = 106 \text{ mA}$; $P_o = 723 \text{ mW}$; Linear characteristic curve
Reactances Ex ia IIC	$L_o = 3 \text{ mH}$; $C_o = 88 \text{ nF}$
Reactances Ex ia IIB	$L_o = 12 \text{ mH}$; $C_o = 680 \text{ nF}$
Reactances Ex ia IIA	$L_o = 18 \text{ mH}$; $C_o = 2.2 \text{ }\mu\text{F}$
Reactances Ex ia I	$L_o = 20 \text{ mH}$; $C_o = 3.6 \text{ }\mu\text{F}$
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	0.08 ... 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 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
---------------	-------------

Material data

Color	blue
Housing material	Polycarbonate; polyamide 6.6
Fire load	1.034 MJ
Weight	50.6 g
Conformity marking	CE

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



Environmental requirements

Ambient temperature (operation)	0 ... +55 °C
Ambient temperature (storage)	-25 ... +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 61000-6-3, 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 (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	4045454725563
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

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



	Lead monoxide Lead silicate
RoHS Compliance Status	Compliant, With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	3e8a7c97-7b4c-474f-8496-a74b87b60f3a
SCIP notification number (Belgium)	c678f146-be73-484d-b0de-61357b04328e
SCIP notification number (Bulgaria)	d76645dc-92f6-42bf-b85b-a6283a5e8cf9
SCIP notification number (Czech Republic)	9115435c-3460-47a9-8ceb-24f4edf25ec4
SCIP notification number (Denmark)	0a6e1a82-33d4-4c0e-a321-1e09a38cffc6
SCIP notification number (Finland)	e55ceb70-edb6-41e8-b9f6-7c5c0cc1a8a8
SCIP notification number (France)	196b02a7-97b4-46ba-b4ef-72e1e9851dc1
SCIP notification number (Germany)	0d000e2e-b07c-48cd-a924-0b87e6f27ed3
SCIP notification number (Hungary)	ec63c6e2-00bf-453b-8860-e9ea2efc8b98
SCIP notification number (Italy)	e2235fe7-3bf1-4430-98f5-9d59c75f8261
SCIP notification number (Netherlands)	63345460-c84a-4e9c-8209-e8fbab45e814
SCIP notification number (Poland)	eb32fd0f-3adb-470f-83b8-915ff70fca7c
SCIP notification number (Romania)	7c292429-f237-4f30-8bdd-96319a6914b5
SCIP notification number (Sweden)	b2dae171-c90d-4037-8b49-57d02324377b

Notes

Note

The digital output module must only be operated via 24 VDC Ex il

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

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Technical data

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

Mechanical data

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

Environmental requirements

Ambient temperature (operation)	0 ... +55 °C
Ambient temperature (storage)	-25 ... +85 °C
Pollution degree	
Operating altitude	
Mounting position	
Vibration resistance	
EMC immunity to interference	
EMC emission of interference	
Exposure to pollutants	

Connection data

Connection type 1	
-------------------	--

Commercial data

Packaging type	
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Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
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	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- DOM750
	UL UL International Netherlands B.V. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	EU-Ex-Declaration of Conformity	-	-
	WAGO GmbH & Co. KG		

Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	22-2219060
	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

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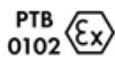


RINA
RINA Germany GmbH

-

ELE343521XG001

Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
	AEx UL International Germany GmbH	UL 60079	E480271
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV_12_ATEX_106032X (Ex ec[iaGa] IIC T4 Gc, [Ex iaDa] IIIC, [Ex iaMa] I)
	CCC CNEX	CNCA-C23-01	2020312310000211 (Ex ec[iaGa] IIC T4 Gc, [Ex iaDa] IIIC, [Ex iaMa] I)
	EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02.B. 00163/19 ([ExiaMa]I X,2Ex e[iaGa]IIC T4Gc X,[ExiaDa] IIIC X)
	INMETRO TÜV Rheinland do Brasil Ltda.	-	TÜV_14.1911_X
	KTL Korea Testing Laboratory	KOSHA Article 34, IEC60079-0	21-KA4BO-0559X
	TUEV Nord TUEV Nord Cert GmbH	IEC 60079, IEC 60079-0	IECEx TUN 12.0039X (Ex ec[iaGa] IIC T4 Gc, [Ex iaDa] IIIC, [Ex iaMa] I)
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

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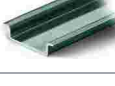
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Optional accessories

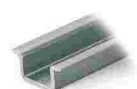
Shield termination

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
	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

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

**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**

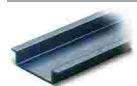
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored

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

**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

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**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

**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

Supply module

Supply module



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Item no.: 750-625/000-001

Power Supply; 24 VDC; Intrinsically safe

www.wago.com/750-625/000-001

Item no.: 750-606

Power Supply; 24 VDC; Diagnostics; Intrinsically safe

www.wago.com/750-606**Downloads****Documentation****Data sheet**

750-535, 2DO 24VDC Ex i, data sheet	pdf 226.4 kB	Download
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Manual

System Manual WAGO I/O System 750/753 Decentralized Automation Technology	V 3.3.3 2023 Aug 29	pdf 8.7 MB	Download
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Product Manual 2-channel, 24VDC, Ex i short-circuit protected, high-side switching	V 1.2.0	pdf 1.2 MB	Download
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System Manual Series 750/753 Online HTML		URL	Download
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Bid Text

750-535 X81 - Datei	2019 Feb 19	xml 5.8 kB	Download
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750-535 doc - Datei	2017 Oct 6	doc 31.2 kB	Download
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Instruction Leaflet

CCC Ex (Additional information) WAGO-I/O-SYSTEM 750-*** Ex i	2023 Apr 26	pdf 147.4 kB	Download
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Additional Information

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

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750/753 Series I/O-System – General Product Information	pdf 976.2 kB	Download
Overview on WAGO-I/O-SYSTEM 750 approvals	pdf 223.5 kB	Download
Ex i Overview	pdf 233.9 kB	Download

CAD/CAE-Data

CAD data

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

EPLAN Data Portal 750-535	URL	Download
WSCAD Universe 750-535	URL	Download
ZUKEN Portal 750-535	URL	Download

Asset Administration Shell

Asset Administration Shell 750-535	URL	Download
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Device Files

Device Driver

WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 2014 Sep 10	zip 4.8 MB	Download
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Installation Notes

Product family

WAGO I/O System 750/753
[Show all products from the family](#)

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