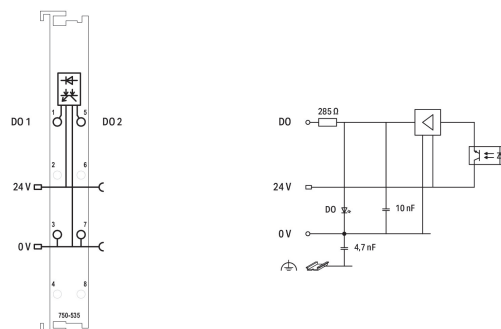
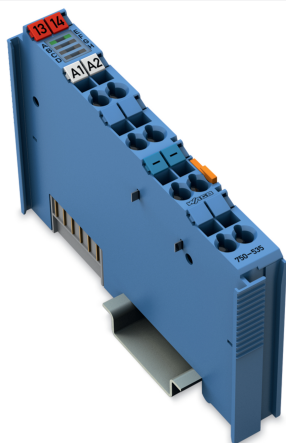


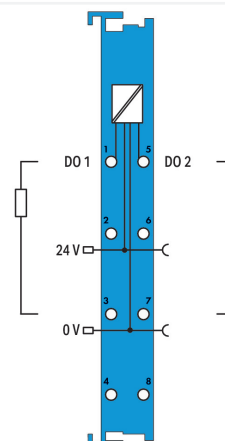
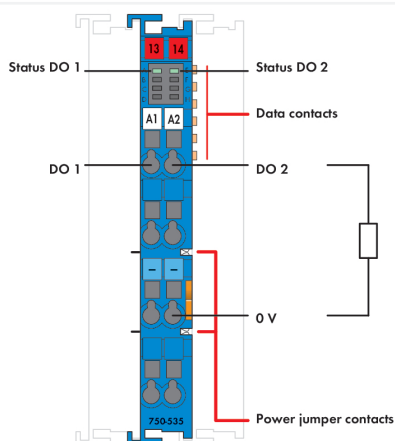
Data Sheet | Item Number: 750-535

2-channel digital output; 24 VDC; Intrinsically safe

<https://www.wago.com/750-535>



Color: ■ blue



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 750/753 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.

Notes

Note

The digital output module must only be operated via 24 VDC Ex !
General information on explosion protection, including installation regulations, can be found in the WAGO I/O System 750/753 manuals!



Technical data	
Item description	2-Channel Digital Output; 24 VDC
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
Intrinsically safe Ex i	Yes
Output data width (internal) max.	2 bits
Supply voltage (system)	5 VDC; via data contacts
Current consumption (system supply)	7 mA
Supply voltage (field)	24 VDC; (Ex i power supply: U _o = max. 26.8 V); via power jumper contacts (supply via blade contact; distribution via spring contact)
Current consumption, field supply (module with no external load)	8.5 mA
Power consumption P _{max.}	2.1 W (at 40 mA output current)
Power loss P _i	1.1 W (at 40 mA output current)
Isolation	300 VAC system/supply
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity (power jumper contacts)	1 A
Indicators	LED (A, E) green: Status DO 1, DO 2

Explosion protection	
Identification	ATEX: II 3 (1) G Ex ec [ia Ga] IIC T4 Gc; II (1) D [Ex ia Da] IIIC; I (M1) [Ex ia Ma] I IECEx/INMETRO: Ex ec [ia Ga] IIC T4 Gc; [Ex ia Da] IIIC; [Ex ia Ma] I cULus (Zone classified): Cl I Zn 2 AEx nA [ia Ga] IIC T4 Gc; Cl I Zn 2 AEx nA [ia IIIC] IIC T4 Gc; Ex nA [ia Ga] IIC T4 Gc X; Ex nA [ia IIIC] IIC T4 Gc X cULus (Devision classified): Class I, Div. 2, Group A B C D, T4
Ex standard	EN IEC 60079-0, -7, -11
Safety-relevant data (circuit)	U _o = 26.8 V; I _o = 99.91 mA; P _o = 669.43 mW; linear characteristic curve
Reactances Ex ia IIC	L _o = 3.56 mH; C _o = 92 nF
Reactances Ex ia IIB	L _o = 14.24 mH; C _o = 720 nF
Reactances Ex ia IIA	L _o = 28.49 mH; C _o = 2.37 μF
Reactances Ex ia I	L _o = 46.75 mH; C _o = 4.2 μF
Reactances (note)	Reactances without accounting for the concurrence of capacitance (C _o) and inductance (L _o)

Connection Data	
Connection technology: I/O	4 x CAGE CLAMP®
Connectable conductor materials	Copper
Connection type	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
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Material data

Color	blue
Housing material	Polycarbonate; polyamide 6.6
Fire load	0.944 MJ
Weight	50.6 g
Conformity marking	CE

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 left, horizontal right, horizontal top, horizontal bottom, vertical top and vertical bottom
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)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454725563
Customs tariff number	85371098990

Product Classification

UNSPSC	32151705
eCl@ss 10.0	27-24-26-04
eCl@ss 9.0	27-24-26-04
ETIM 9.0	EC001599
ETIM 10.0	EC001599
ECCN	NO US CLASSIFICATION



Environmental Product Compliance	
CAS-No.	1303-86-2 1317-36-8 7439-92-1
REACH Candidate List Substance	Diboron trioxide Lead Lead monoxide
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

Approvals / Certificates

General approvals		Declarations of conformity and manufacturer's declarations
  		
Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-DOM750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199
Approval	Standard	Certificate Name
EU-Ex-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Ex-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications		Approvals for marine applications
     		
		
Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	25-0415412
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
Approval	Standard	Certificate Name
LR Lloyds Register EMEA	-	LR22180952TA
PRS Polski Rejestr Statków	-	TE/1101/880590/23
RINA RINA Germany GmbH	-	ELE343521XG001



Approvals for hazardous areas



Approval	Standard	Certificate Name
AEx UL International Germany GmbH	UL 60079	E480271
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV12ATEX106032X (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] II-IC, [Ex iaMa] I)
IECEX TUEV Nord Cert GmbH	IEC 60079	IECEX TUN12.0039X (Ex ec [iaGa] IIC T4 Gc, [Ex iaDa] II-IC, [Ex iaMa] I)
INMETRO TÜV Rheinland do Brasil Ltda.	-	TÜV_14.1911_X
KTL Korea Testing Laboratory	KOSHA Article 34, IEC60079-0	21-KA4BO-0559X
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 750-535

Documentation

Manual
Product Manual 2-channel, 24VDC, Ex i 2483848971 3 en-US 2025-06-03 08:46 14.11.2025 pdf 2340.35 KB
System Manual Series 750/753

System Description
750/753 Series I/O-System – General Product Information pdf 953.35 KB
Overview on WAGO-I/O-SYSTEM 750 approvals pdf 770.48 KB
Ex i Overview pdf 442.07 KB

Bid Text
750-535 19.02.2019 xml 5.70 KB
750-535 06.10.2017 doc 30.50 KB

Instruction Leaflet
CCC Ex (Additional information) 26.04.2023 pdf 143.96 KB

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 750-535	EPLAN Data Portal 750-535
	WSCAD Universe 750-535
	ZUKEN Portal 750-535

Device Files			
Device Driver			
WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 10.09.2014	zip 4721.96 KB	

1 Compatible Products
1.1 Optional Accessories
1.1.1 DIN-rail
1.1.1.1 Mounting accessories

 Item No.: 210-196 Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslopped; similar to EN 60715; silver-colored	 Item No.: 210-198 Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; copper-colored	 Item No.: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slopped; similar to EN 60715; silver-colored	 Item No.: 210-114 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslopped; similar to EN 60715; silver-colored
 Item No.: 210-118 Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; silver-colored	 Item No.: 210-115 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; according to EN 60715; "Hole width 18 mm; silver-colored	 Item No.: 210-112 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; according to EN 60715; "Hole width 25 mm; silver-colored	 Item No.: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslopped; according to EN 60715; silver-colored

1.1.2 Marking
1.1.2.1 Group marker carrier
 Item No.: 750-107 Group marker carrier

1.1.2.2 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	 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	 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	 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
 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	 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	 Item No.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	 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



1.1.2.2 Marker



Item No.: 248-501/000-006
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue



Item No.: 248-501/000-007
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray



Item No.: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green



Item No.: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green



Item No.: 248-501/000-012
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange



Item No.: 248-501/000-005
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red



Item No.: 248-501/000-024
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet



Item No.: 248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



Item No.: 248-501/000-002
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow

1.1.2.3 Marker carrier



Item No.: 750-103
Group marker carrier

1.1.3 Shield termination

1.1.3.1 Shield clamping saddles



Item No.: 790-108
Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm



Item No.: 790-208
Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm



Item No.: 790-116
Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm



Item No.: 790-216
Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm



Item No.: 790-124
Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm



Item No.: 790-220
Shield clamping saddle; 30 mm wide; 6 ... 20 mm



Item No.: 790-140
Shield clamping saddle; diameter of compatible conductor

1.1.4 Supply module

1.1.4.1 Supply module



Item No.: 750-606
Power Supply; 24 VDC; Diagnostics; Intrinsically safe



Item No.: 750-625/000-001
Power Supply; 24 VDC; Intrinsically safe