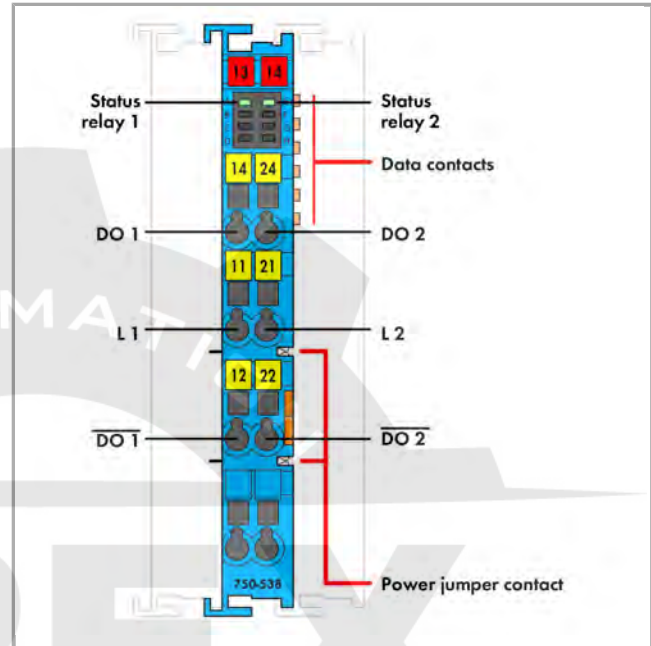


Data sheet | Item number: 750-538

2-channel relay output; 100 VAC/30 VDC; Potential-free; Relay, 2
changeover contacts

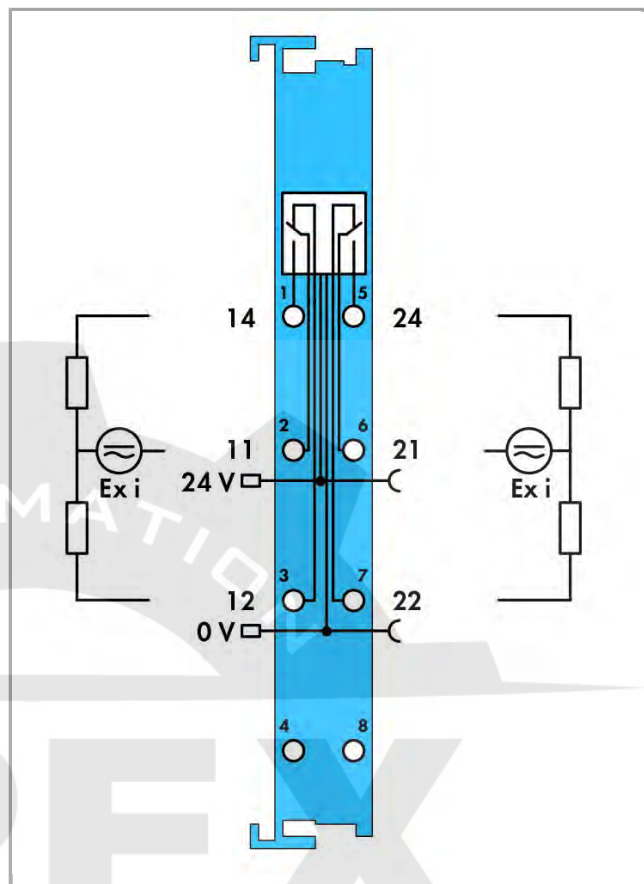
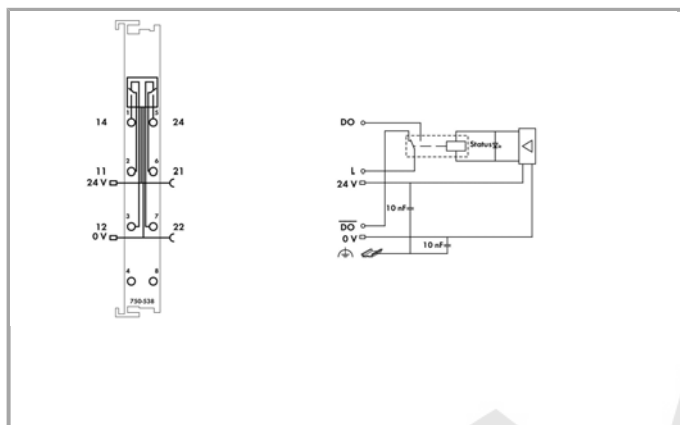


750-538



RoHS Compliant

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



Item description

The digital output module switches intrinsically safe circuits of Zone 0+1 (e.g., magnetic valves, contactors, optical/acoustic encoders).

The internal system voltage triggers the relay.

Both maximum switching current and voltage must comply with EN 60079-11.

The switched status of the relays is shown by a LED.

The NO contacts are electrically isolated.

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

Note:

The digital output module must only be operated via Ex i 24VDC power supply!

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

Data

Technical Data

Number of digital outputs

2

Total number of channels (module)	2
Type of signal	Voltage
Actuator connection	2 x (2-conductor)
Output switching design	2 changeover contacts relay
Output characteristic	potential-free
Switching frequency max.	0.3 Hz
Type of load	resistive, inductive, lamps
Switching frequency max.	0.3 Hz
Switching voltage (max.)	AC 100 V, DC 30 V V
Switching current max.	0.5 A
Switching current, information note	0,5 A bei AC 100 V; 1 A bei DC 30 V
Switching voltage (min.)	0.1 V
Switching current (min.)	0.01 mA
Power consumption $P_{\max}$	0.8 W
Switching power	50 VA / 30 W
Pull-in time (max.)	4 ms
Drop-out time (max.)	4 ms
Schaltspiele elektrisch min. (bei max. ohmscher Last)	1 x 10 ⁵
Schaltspiele mechanisch min. (bei max. ohmscher Last)	100 x 10 ⁶
Max output data width (internal)	2 Bit
Intrinsic safety Ex i	yes
System supply voltage	DC 5 V; via data contacts
Current consumption, system supply (5 V)	26 mA
Field supply voltage	DC 24 V; (Versorgung über Einspeisung Ex i $U_O = \max. 27,3 \text{ V}$); über Leistungskontakte (Einspeisung über Messerkontakt; Weiterleitung über Federkontakt)
Current consumption, field supply (module with no external load)	24 mA
Power loss P_V	0.8 W
Isolation	300 VAC system/supply
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity of the power jumper contacts	1 A
Ex guideline	EN/IEC 60079-0, -7, -11, -26, -31
Electric circuit, safety-relevant data	Relay output: $U_i = 30 \text{ V DC}$; $I_i = 1 \text{ A}$; $P_i = 30 \text{ W}$; $U_i = 100 \text{ V AC}$; $I_i = 0.5 \text{ A}$; $P_i = 50 \text{ VA}$; $L_i = \text{negligible}$; $C_i = \text{negligible}$
Marking	ATEX, IECEx, Underwriters Laboratories Inc.

Connection data

Connection technology: In-/Outputs	8 x CAGE CLAMP®
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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	67.8 mm / 2.669 inch
Height from upper-edge of DIN-35 rail	60.6 mm / 2.386 inch
Depth	100 mm / 3.937 inch

Mechanical data

Type of mounting	DIN-35 rail
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Material Data

Color	blue
Contact material	Ag alloy, with gold flash
Housing material	Polycarbonate, polyamide 6.6
Fire load	0 MJ
Weight	49.1 g
Conformity marking	1

Environmental Requirements

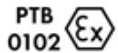
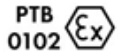
Surrounding air (operating) temperature	0 ... 55 °C
Surrounding air (storage) temperature	-40 ... 85 °C
Protection class	IP20
Degree of pollution (5)	2 per IEC 61131-2
Operating altitude	0 ... 2000 m
Mounting position	horizontal (standing/lying) or vertical
Relative air humidity (no condensation)	95 %
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 61000-6-3, 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 (Remote I/O)
Country of origin	DE
GTIN	4050821694823
Customs Tariff No.	85371098990

Approvals / Certificates

Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	AEx UL International Germany GmbH	UL 60079	E480271
	ATEX TÜV Nord Cert GmbH	EN 60079-0	TUEV_12_ATEX_106032X
	IECEX TÜV Nord Cert GmbH	IEC 60079	IECEX TUN 12.0039X
	INMETRO TÜV Rheinland do Brasil Ltda.	-	TÜV_14.1911_X
	TUEV Nord TUEV Nord Cert GmbH	EN 60079-0	TUEV_12_ATEX_106032X
	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- DOM750

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG1821926



DNV GL

Det Norske Veritas, Germanischer Lloyd

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TAA0000194



GL

Germanischer Lloyd

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11 631 - 10
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PRS

Polski Rejestr Statków

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TE/2236
/880590/19

UL-Approvals

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

Compatible products

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	2009-145 /000-012
	Item no.: 2009-145/000-023 Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-145 /000-023
	Item no.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-145 /000-024
	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.: 750-103 Group marker carrier	750-103
	Item no.: 750-107 Group marker carrier	750-107
Supply module		
	Item no.: 750-606 Power Supply; 24 VDC; Diagnostics; Intrinsically safe	750-606



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

750-625

/000-001

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

Data sheet

750-538, 2DO Relay Ex i, data sheet

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Manual

2-channel, Relay Output Module 100V AC, 30 V DC, Ex i
isolated outputs, 2 changeover contacts

V 1.3.0

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Bid Text

750-538
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Oct 2, 2014

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Additional Information

Disposal; Electrical and electronic equipment, Packaging

V 1.0.0

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System Description

750/753 Series I/O-System – General Product Information

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Ex i Overview

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Use in Hazardous Environments

Term definition, marking and installation regulations

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Overview on WAGO-I/O-SYSTEM 750 approvals

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Design Notes

Basic conditions and recommendations for higher operational safety

V 2.0.0

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CAD/CAE - Smart Data

CAD data

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Product family

750/753 Series I/O-System

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Subject to changes.
