

Data sheet | Item number: 750-585

2-channel analog output; 0 ... 20 mA; Intrinsically safe; blue

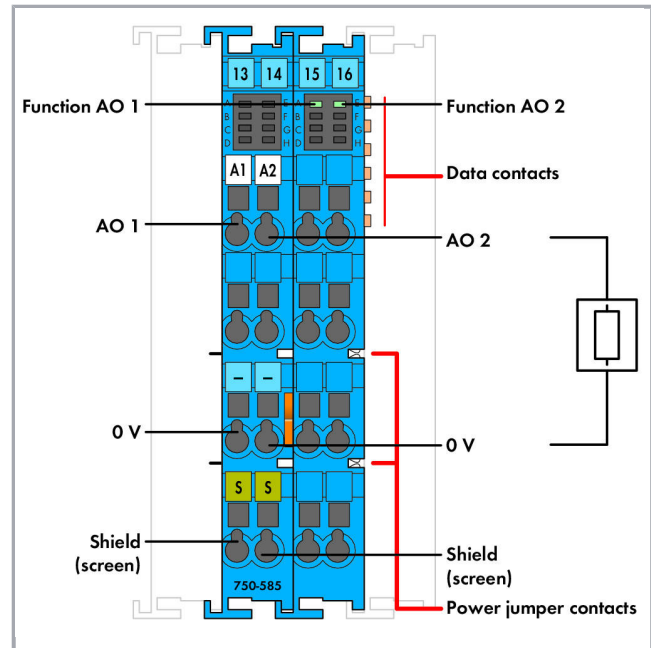
www.wago.com/750-585



RoHS Compliant

BOMcheck.net

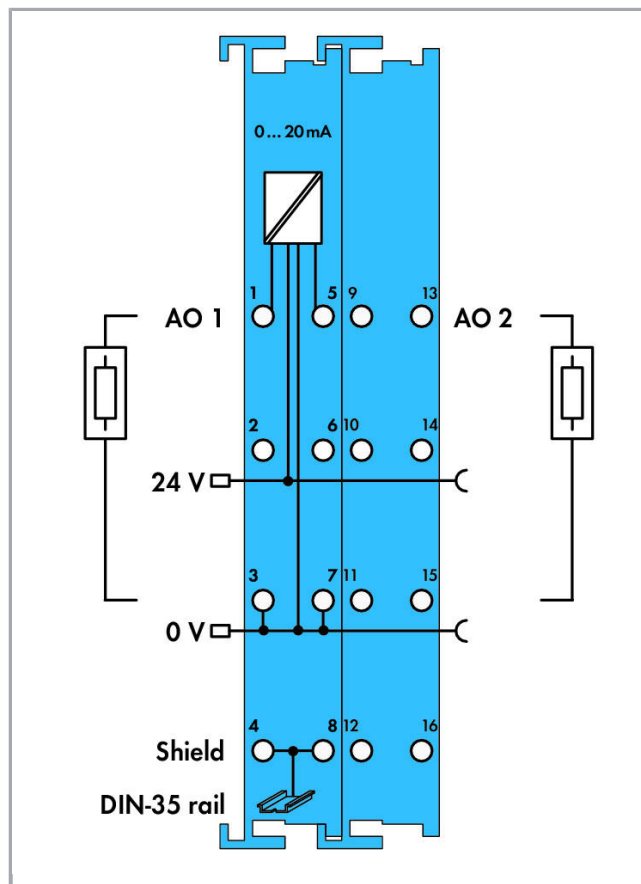
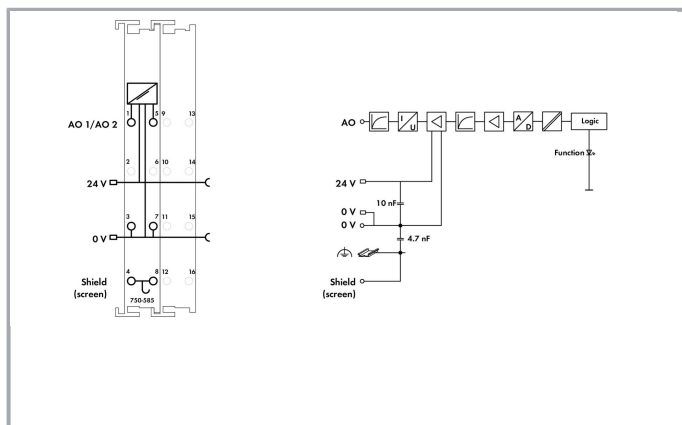
Color:



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

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This analog output module transmits intrinsically safe 0–20 mA signals in Zone 0+1 hazardous areas.

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

Power is derived from the power jumper contacts.

The outputs are short-circuit-protected.

Indicators:

- Green LED (output status)

Field and system levels are electrically isolated.

Note:

The analog output module must only be operated with a 24 VDC Ex i power supply!

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

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Data

Technical Data

Number of analog outputs	2
Total number of channels (module)	2
Signal type	Electricity
Signal type (current)	DC 0 ... 20 mA
Actuator connection	2 x (2-wire)
Resolution [bit]	12 Bit
Power consumption P_{max}	1.5 W
Data width	2 x 16-bit data
Load impedance (current output)	$\leq 500 \Omega$
Conversion time (typ. $\leq$)	2 ms
Measurement error (reference temperature)	25 °C
Measurement error – deviation (max.) from the upper-range value	0.2 %
Temperature error (max.) of the upper-range value	0.01 %/K
Intrinsic safety Ex i	yes
Linearity	± 2 LSB
Supply voltage (system)	DC 5 V; via data contacts
Power consumption (5 V system supply)	21 mA
Supply voltage (field)	DC 24 V; (Ex i power supply: $U_O = \text{max. } 27.3 \text{ V}$); via power jumper contacts (power supply via blade contact; transmission via spring contact)
Power consumption, field supply (module with no external load)	19 mA
Power loss P_l	0.9 W
Isolation	300 VAC system/field
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity (power jumper contacts)	1 A
Ex guideline	EN/IEC 60079-0, -7, -11, -26, -31
Safety-relevant data (circuit)	$U_O = 27.3 \text{ V}$; $I_O = 57.5 \text{ mA}$; $P_O = 392 \text{ mW}$; Linear characteristic curve
Reactances Ex ia IIC	$L_O = 11 \text{ mH}$; $C_O = 88 \text{ nF}$
Reactances Ex ia IIB	$L_O = 56 \text{ mH}$; $C_O = 680 \text{ nF}$
Reactances Ex ia IIA	$L_O = 90 \text{ mH}$; $C_O = 2.2 \mu\text{F}$
Reactances Ex ia I	$L_O = 110 \text{ mH}$; $C_O = 3.5 \mu\text{F}$
Reactances (note)	Reactances without accounting for the concurrence of L and C

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Marking

ATEX, IECEX, INMETRO, Underwriters Laboratories Inc.

Connection data

Connection technology: inputs/outputs	16 x CAGE CLAMP®
Connection type (1)	Inputs/Outputs
Solid conductor	0,08 ... 2,5 mm² / 28 ... 14 AWG
Fine-stranded conductor	0,08 ... 2,5 mm² / 28 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch

Geometrical Data

Width	24 mm / 0.945 inch
Height	100 mm / 3.937 inch
Depth	67,8 mm / 2.669 inch
Depth from upper edge of DIN-rail	60,6 mm / 2.386 inch

Mechanical data

Mounting type	DIN-35 rail
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Material Data

Color	blue
Housing material	Polycarbonate, polyamide 6.6
Weight	90.1 g
Conformity marking	CE

Environmental Requirements

Surrounding air temperature (operation)	0 ... 55 °C
Surrounding air temperature (storage)	-40 ... 85 °C
Protection type	IP20
Pollution degree (5)	2 per IEC 61131-2
Operating altitude	0 ... 2000 m
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

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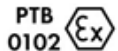
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data

Product Group	15 (Remote I/O)
Packaging type	BOX
Country of origin	DE
GTIN	4045454725570
Customs tariff number	85389099990

Approvals / Certificates

Ex-Approvals

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
	INMETRO TÜV Rheinland do Brasil Ltda.	-	TÜV_14.1911_X
	TUEV Nord TUEV Nord Cert GmbH	IEC 60079, IEC 60079-0	IECEx TUN 12.0039X
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	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-AOM750

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Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG1821926
	BV Bureau Veritas S.A.	-	13453/DO BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAA0000194
	KR Korean Register of Shipping	-	KR HMB05880- AC001
	LR Lloyds Register	-	02/20026 (E6)
	NK Nippon Kaiji Kyokai	-	TA17255M
	PRS Polski Rejestr Statków	-	TE/2236 /880590/19
	RINA RINA Germany GmbH	-	ELE066419XG

UL-Approvals

Certificate

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

Counterpart

Compatible products

shield connection

	Item no.: 790-108 Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm	www.wago.com/790-108
	Item no.: 790-116 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.: 790-140 Shield clamping saddle; diameter of compatible conductor	www.wago.com/790-140
	Item no.: 790-208 Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm	www.wago.com/790-208
	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

Marking accessories

	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.: 2009-145/000-005 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

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	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.: 2009-145/000-007 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.: 2009-145/000-012 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 Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card	www.wago.com/248-501
	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.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red	www.wago.com/248-501/000-005
	Item no.: 248-501/000-006 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.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange	www.wago.com/248-501/000-012
	Item no.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green	www.wago.com/248-501/000-017
	Item no.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green	www.wago.com/248-501/000-023
	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

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**Item no.: 750-103**

Group marker carrier; transparent

www.wago.com/750-103**Item no.: 750-107**

Group marker carrier; transparent

www.wago.com/750-107**Supply module****Item no.: 750-606**

Power Supply; 24 VDC; Diagnostics; Intrinsically safe; light gray

www.wago.com/750-606**Item no.: 750-625/000-001**

Power Supply; 24 VDC; Intrinsically safe; light gray

www.wago.com/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

www.wago.com/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

www.wago.com/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

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

www.wago.com/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

www.wago.com/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; silver-colored

www.wago.com/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

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

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

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

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

www.wago.com/210-508

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**Downloads****Documentation****Data sheet**

750-585, 2AO 0-20mA Ex i, data sheet		pdf 240.4 kB	Download
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Manual

2-channel, 0-20mA, Ex i	V 1.3.0	pdf 2.0 MB	Download
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Bid Text

750-585 doc - Datei	Oct 6, 2017	doc 29.7 kB	Download
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750-585 GAEB X81 - Datei	Feb 19, 2019	xml 5.9 kB	Download
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System Description

Design Notes Basic conditions and recommendations for higher operational safety	V 2.0.0	pdf 1.5 MB	Download
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750/753 Series I/O-System – General Product Information		pdf 1.7 MB	Download
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Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 780.2 kB	Download
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Use in Hazardous Environments Term definition, marking and installation regulations	V 1.0.0	pdf 1.0 MB	Download
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Ex i Overview		pdf 616.0 kB	Download
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CAD/CAE-Data**CAD data**

2D/3D Models 750-585		URL	Download
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CAE data

EPLAN Data Portal 750-585

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WSCAD Universe 750-585	URL	Download

Device Files

Device Driver

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

Product family

750/753 Series – I/O System

[Show all products from the family](#)

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