



## Technical data

### Configuration

Configuration options	DIP switch Potentiometer
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### Input

Input signal type	Voltage Current
Input signal (voltage)	±5 V 0 ... 5 V 1 ... 5 V ±10 V 0 ... 10 V 2 ... 10 V
Input signal (current)	±10 mA 0 ... 10 mA 2 ... 10 mA ±20 mA 0 ... 20 mA 4 ... 20 mA
Input resistance (current input)	≤ 50 Ω
Input resistance (voltage input)	1 MΩ
Input current (max.)	50 mA
Input voltage (max.)	32 V
Zero/span adjustment	±5 % of upper-range value

### Output (analog)

Output signal type	Current Voltage
Output signal (voltage)	±5 V 0 ... 5 V 1 ... 5 V ±10 V 0 ... 10 V 2 ... 10 V
Output signal (current)	±10 mA 0 ... 10 mA 2 ... 10 mA ±20 mA 0 ... 20 mA 4 ... 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Residual ripple	≤ 10 mV (rms)

### Signal processing

Limit frequency	100 Hz / 5 kHz (configurable via DIP switch)
Step response (typ.)	3.5 ms (100 Hz) 68 μs (5 kHz)

### Measurement error

Transmission error (typ.)	≤ 0.1 % of upper-range value
Transmission error (max.)	≤ 0.2 % of upper-range value
Transmission error (under interference)	≤ 15 %
Temperature coefficient	≤ 0.01 %/K

### Power supply

Power supply type	24 VDC (SELV)
Nominal supply voltage $U_s$	24 VDC
Supply voltage range	±30 %
Current consumption (default)	≤ 20 mA
Current consumption (max.)	≤ 40 mA

## Safety and protection

Rated Voltage	300 V
Protection type	IP20

### Test voltage

Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
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### Insulation coordination

Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)

### Connection data

Connection technology	Push-in CAGE CLAMP®
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm <sup>2</sup> / 22 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inches
Cable type	Shielded cable

### Physical data

Width	6 mm / 0.236 inches
Height	94 mm / 3.701 inches
Depth from upper-edge of DIN-rail	97.8 mm / 3.85 inches

### Mechanical data

Mounting type	DIN-35 rail
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### Material data

Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.363 MJ
Weight	39.2 g

### Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Processing temperature	-25 ... +50 °C
Temperature range of connection cable	≥ (T <sub>ambient</sub> + 10 K)
Relative humidity	5 ... 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

### Standards and specifications

Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3
Standards/specifications	EN 61010-1 EN 61373 DNV

### Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4045454828493
Customs tariff number	85437090300

### Product classification

UNSPSC	32101502
eCl@ss 10.0	27-21-01-20
eCl@ss 9.0	27-21-01-20
ETIM 9.0	EC002653
ETIM 8.0	EC002653
ECCN	NO US CLASSIFICATION

### Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 7439-92-1 75980-60-8
REACH Candidate List Substance	Diboron trioxide Lead Lead monoxide Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	3045ef60-f28a-43e4-9dba-b63435d5553d
SCIP notification number (Belgium)	8f1d744b-8731-4270-a640-73cf63782d7f
SCIP notification number (Bulgaria)	74cd0cd4-d3cc-4fa9-ac76-5a1ca5bb11a1
SCIP notification number (Czech Republic)	0689176b-e48c-48ed-859f-591c9a9bb606
SCIP notification number (Denmark)	ffd652f9-d5f2-45bf-981b-f0fde66c585f
SCIP notification number (Finland)	7c145b78-dbc2-4260-85cc-22a468112985
SCIP notification number (France)	3a00d327-3185-4fcb-a0b8-36a561c46061
SCIP notification number (Germany)	15951163-bfc4-44d4-b679-9146fa50b484
SCIP notification number (Hungary)	5fd6a05b-6f43-463e-8f9a-4ab07da40dfd
SCIP notification number (Italy)	ea8b18af-ed6a-4f27-b024-7378eb0f2d3d
SCIP notification number (Netherlands)	56e8430c-ad8e-4e3a-b6f2-897614bc0f79
SCIP notification number (Poland)	62fe04e8-fd16-49c4-be93-f76f40eef9e0
SCIP notification number (Romania)	01c54ad8-3056-427f-8fc0-0b8e8c12d949
SCIP notification number (Sweden)	4527d706-aff0-40c4-95f8-d5d44d48a189

### Approvals / Certificates

#### General approvals



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.4

#### Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications



Approval	Standard	Certificate Name
BV Bureau Veritas S.A.	Rules for class. of Steel Ships	40179_B0
DNV DNV Germany GmbH	DNV-CG-0339, Aug. 2021	TAA00001D1
PRS Polski Rejestr Statków	-	TE/1098/880590/23

Approvals for hazardous areas



Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV14ATEX112692X (II 3G Ex ec IIC T4 Gc)
CCC CNEX	CNCA-C23-01	2020312310000210 (Ex ec IIC T4 Gc)
IECEX TUEV Nord Cert GmbH	-	IECEX TUN14.0030X
UKEx WAGO GmbH & Co. KG	EN 60079-0	WAGO22UKEX004X
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	ANSI/ISA 12.12.01	E198726

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 857-409 <a href="#">↓</a>

Documentation

Manual
WAGO Isolating Amplifiers <a href="#">↓</a>

Bid Text			
857-409	18.07.2019	xml 6.15 KB	<a href="#">↓</a>
857-409	18.07.2019	docx 18.48 KB	<a href="#">↓</a>
857-409	18.07.2019	pdf 74.80 KB	<a href="#">↓</a>

Instruction Leaflet

CCC Ex (Additional information)	26.04.2023	pdf 140.99 KB	<a href="#">↓</a>
Trennverstärker; bipolares Strom- und Spannungseingangssignal; bipolares Strom- und Spannungsausgangssignal	V 2.1.0 07.04.2022	pdf 2111.32 KB	<a href="#">↓</a>

## CAD/CAE-Data

CAD data	CAE data
2D/3D Models 857-409	EPLAN Data Portal 857-409
	WSCAD Universe 857-409
	ZUKEN Portal 857-409

## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 Installation

##### 1.1.1.1 Mounting accessories



[Item No.: 249-117](#)  
Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray



[Item No.: 249-197](#)  
Screwless end stop; 14 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray



[Item No.: 249-116](#)  
Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

#### 1.1.2 Interface module

##### 1.1.2.1 Interface adapters



[Item No.: 857-980](#)  
Interface adapter; 16-pole; analog

#### 1.1.3 Jumper

##### 1.1.3.1 Jumper



[Item No.: 281-482](#)  
Jumper; 2-way; insulated; gray



[Item No.: 859-410/000-006](#)  
Jumper; for jumper slot; 10-way; insulated; blue



[Item No.: 859-410](#)  
Jumper; for jumper slot; 10-way; insulated; light gray



[Item No.: 859-410/000-005](#)  
Jumper; for jumper slot; 10-way; insulated; red



[Item No.: 859-410/000-029](#)  
Jumper; for jumper slot; 10-way; insulated; yellow



[Item No.: 859-402/000-006](#)  
Jumper; for jumper slot; 2-way; insulated; blue



[Item No.: 859-402](#)  
Jumper; for jumper slot; 2-way; insulated; light gray



[Item No.: 859-402/000-005](#)  
Jumper; for jumper slot; 2-way; insulated; red



[Item No.: 859-402/000-029](#)  
Jumper; for jumper slot; 2-way; insulated; yellow



[Item No.: 859-403/000-006](#)  
Jumper; for jumper slot; 3-way; insulated; blue



[Item No.: 859-403](#)  
Jumper; for jumper slot; 3-way; insulated; light gray



[Item No.: 859-403/000-005](#)  
Jumper; for jumper slot; 3-way; insulated; red



[Item No.: 859-403/000-029](#)  
Jumper; for jumper slot; 3-way; insulated; yellow



[Item No.: 859-404/000-006](#)  
Jumper; for jumper slot; 4-way; insulated; blue



[Item No.: 859-404](#)  
Jumper; for jumper slot; 4-way; insulated; light gray



[Item No.: 859-404/000-005](#)  
Jumper; for jumper slot; 4-way; insulated; red

1.1.3.1 Jumper



**Item No.: 859-404/000-029**  
 Jumper; for jumper slot; 4-way; insulated; yellow



**Item No.: 859-405/000-006**  
 Jumper; for jumper slot; 5-way; insulated; blue



**Item No.: 859-405**  
 Jumper; for jumper slot; 5-way; insulated; light gray



**Item No.: 859-405/000-005**  
 Jumper; for jumper slot; 5-way; insulated; red



**Item No.: 859-405/000-029**  
 Jumper; for jumper slot; 5-way; insulated; yellow



**Item No.: 859-406/000-006**  
 Jumper; for jumper slot; 6-way; insulated; blue



**Item No.: 859-406**  
 Jumper; for jumper slot; 6-way; insulated; light gray



**Item No.: 859-406/000-005**  
 Jumper; for jumper slot; 6-way; insulated; red



**Item No.: 859-406/000-029**  
 Jumper; for jumper slot; 6-way; insulated; yellow



**Item No.: 859-407/000-006**  
 Jumper; for jumper slot; 7-way; insulated; blue



**Item No.: 859-407**  
 Jumper; for jumper slot; 7-way; insulated; light gray



**Item No.: 859-407/000-005**  
 Jumper; for jumper slot; 7-way; insulated; red



**Item No.: 859-407/000-029**  
 Jumper; for jumper slot; 7-way; insulated; yellow



**Item No.: 859-408/000-006**  
 Jumper; for jumper slot; 8-way; insulated; blue



**Item No.: 859-408**  
 Jumper; for jumper slot; 8-way; insulated; light gray



**Item No.: 859-408/000-005**  
 Jumper; for jumper slot; 8-way; insulated; red



**Item No.: 859-408/000-029**  
 Jumper; for jumper slot; 8-way; insulated; yellow



**Item No.: 859-409/000-006**  
 Jumper; for jumper slot; 9-way; insulated; blue



**Item No.: 859-409**  
 Jumper; for jumper slot; 9-way; insulated; light gray



**Item No.: 859-409/000-005**  
 Jumper; for jumper slot; 9-way; insulated; red



**Item No.: 859-409/000-029**  
 Jumper; for jumper slot; 9-way; insulated; yellow

1.1.4 Marking

1.1.4.1 Marker



**Item No.: 793-5501**  
 WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white



**Item No.: 793-502**  
 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white



**Item No.: 793-566**  
 WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type; white



**Item No.: 793-503**  
 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white



**Item No.: 793-504**  
 WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white



**Item No.: 793-505**  
 WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; white



**Item No.: 793-506**  
 WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white



**Item No.: 793-501**  
 WMB marking card; as card; not stretchable; plain; snap-on type; white



**Item No.: 2009-115**  
 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

### 1.1.4.2 Marking strip



**Item No.: 2009-110**

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

### 1.1.5 Power supply

#### 1.1.5.1 Power supply



**Item No.: 787-2852**

Switched-mode power supply; 1-phase; 24 VDC output voltage; 1 A output current

### 1.1.6 Terminal blocks

#### 1.1.6.1 Supply module



**Item No.: 857-979**

Supply and through module

#### 1.1.6.2 Through terminal block



**Item No.: 857-979**

Supply and through module

### 1.1.7 Tool

#### 1.1.7.1 Operating tool

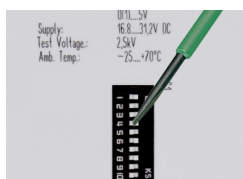


**Item No.: 210-720**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

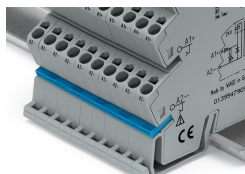
## Installation Notes

### Configuring



Configuration via DIP switch

## Commoning



Commoning, not discrete wiring – Same outline allows use of a single in-line, push-in jumper.