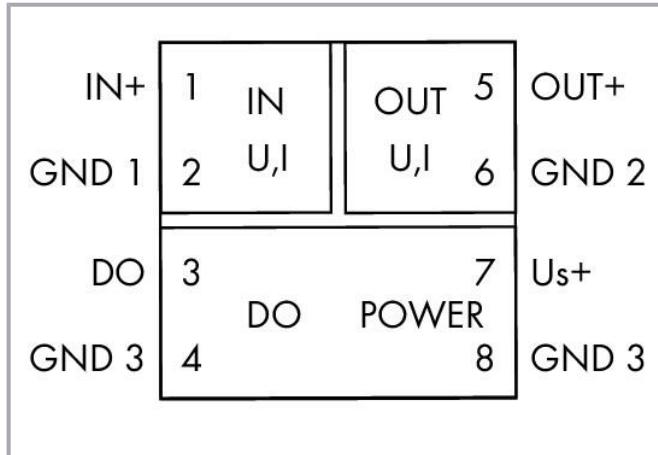
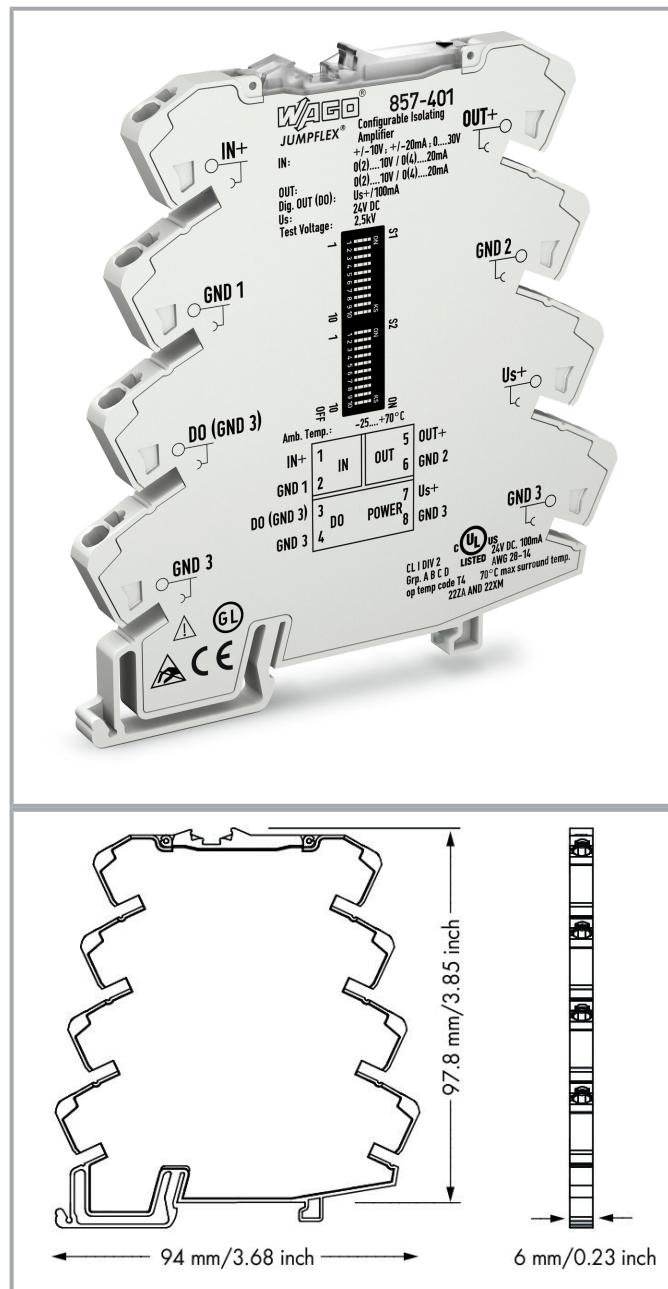


Data sheet | Item number: 857-401

Isolation amplifier; Current and voltage input signal; Current and voltage output signal; Digital output; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm²



www.wago.com/857-401



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

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DIP Switch Adjustability									
Input Signal Start Value									
Input Signal End Value									
DIP S1	1	2	3	4	5	6	7	V	mA
DIP S1	8	9	10	1	2	3	Y	mA	DIP S2
• Voltage	0	-10	-20	0	5.5	11	•	5.5	11
• Current	•	-9.5	-19	•	6.5	13	•	6.5	13
•	-9	-18	•	7	14	•	7	14	•
•	-8.5	-17	•	7.5	15	•	7.5	15	•
•	-8	-16	•	8	14	•	8	14	•
•	-7.5	-15	•	8.5	17	•	8.5	17	•
•	-7	-14	•	9	18	•	9	18	•
•	-6.5	-13	•	9.5	19	•	9.5	19	•
•	-6	-12	•	10	20	•	10	20	•
•	-5.5	-11	•	10.5	21	•	10.5	21	•
•	-5	-10	•	11	11.5	•	11.5	12	•
•	-4.5	-9	•	12	12	•	12	12	•
•	-4	-8	•	13	13	•	13	13	•
•	-3.5	-7	•	14	14	•	14	14	•
•	-3	-6	•	15	15	•	15	15	•
•	-2.5	-5	•	16	16	•	16	16	•
•	-2	-4	•	17	17	•	17	17	•
•	-1.5	-3	•	18	18	•	18	18	•
•	-1	-2	•	19	19	•	19	19	•
•	-0.5	-1	•	20	20	•	20	20	•
•	0	0	•	21	21	•	21	21	•
•	0.5	1	•	22	22	•	22	22	•
•	1	2	•	23	23	•	23	23	•
•	1.5	3	•	24	24	•	24	24	•
•	2	4	•	25	25	•	25	25	•
•	2.5	5	•	26	26	•	26	26	•
•	3	6	•	27	27	•	27	27	•
•	3.5	7	•	28	28	•	28	28	•
•	4	8	•	29	29	•	29	29	•
•	4.5	9	•	30	30	•	30	30	•
DIP Switch 2	4	5	6	7	8	Measuring Range Underflow	Measuring Range Overflow	9	10
						Lower limit of output range	Upper limit of output range		Digital Output DO Signaling
•	•	•	0 ... 20 mA	4 ... 20 mA	•	-5 % *	+2.5 % *	•	DO not active
•	•	•	0 ... 10 mA	2 ... 10 mA	•	Lower limit of output range	Upper limit of output range	•	GND → U _o (switching)
•	•	•	0 ... 10 V	2 ... 10 V	•	Lower limit of output range	Upper limit of output range	•	U _o → GND (switching)
•	•	•	0 ... 5 V	1 ... 5 V	•	Lower limit of output range	Upper limit of output range	•	*acc. to NAMUR NE 43

Digital Output DO Signaling
The digital output (DO) signals error messages and can be configured as follows: 24 V → 0 V / 0 V → 24 V.
The digital output (DO) signals error messages and can be configured as follows: 24 V → 0 V / 0 V → 24 V.

In order to increase the switching current of the DO, the latter may be expanded by a relay. Thanks to the common housing shape for the 857 Series, for example, a 857-304 Relay can be snapped in next to it. This output can be quickly and easily expanded to a switching current of 6A by simply using an adjacent jumper (859-402).

Item description

Short description:

WAGO's configurable signal conditioner converts, amplifies, filters and electrically isolates standard analog signals.

Features:

- PC configuration interface
- Digital switching output
- Calibrated measurement range switching
- Standard unipolar/bipolar analog signals at input
- Clipping capability
for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

Data Notes

Note

Additional setting options via WAGO Interface Configuration Software or WAGO Interface Configuration App

Technical data

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

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Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.

Configuration

Configuration options	DIP switch WAGO Interface Configuration Software WAGO Interface Configuration App
-----------------------	---

Input

Input signal type	Voltage (DC) Current (DC) Voltage Current
Input signal (voltage)	$\pm 10 \text{ V}$; 0 ... 30 V
Input signal (current)	$\pm 20 \text{ mA}$
Input resistance (current input)	$\leq 200 \Omega$
Input resistance (voltage input)	$\geq 100 \text{ k}\Omega$
Input current (max.)	22 mA
Input voltage (max.)	31 V
Measurement span (min.)	1 V
Measurement span (current) min.	2 mA

Output (analog)

Output signal type	Current Voltage
Output signal (voltage)	0 ... 5 V; 1 ... 5 V; 0 ... 10 V; 2 ... 10 V
Output signal (current)	0 ... 10 mA; 2 ... 10 mA; 2 ... 20 mA; 4 ... 20 mA
Load impedance (voltage output)	$\geq 2 \text{ k}\Omega$
Load impedance (current output)	$\leq 600 \Omega$

Output (digital)

Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 (adjustable)

Signal Processing

Step response (typ.)	8 ms
----------------------	------

Measurement Error

Transmission error (typ.)	$\leq 0.1 \%$ of upper-range value
---------------------------	------------------------------------

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

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Temperature coefficient	$\leq 0.01 \text{ \%}/\text{K}$
-------------------------	---------------------------------

Supply

Power supply type	24 VDC
Nominal supply voltage U_S	DC 24 V
Supply voltage range	$\pm 30 \text{ \%}$
Current consumption at nominal supply voltage	$\leq 40 \text{ mA} (+ I_{DO})$

Safety and protection

Protection type	IP20
-----------------	------

Test voltage

Test voltage (input/output/supply)	AC 2.5 kV; 50 Hz; 1 min
------------------------------------	-------------------------

Connection data

Connection technology	Push-in CAGE CLAMP®
Solid conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm² / 22 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inches

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
---------------	-------------

Material Data

Fire load	0.593 MJ
Weight	37 g

Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C
---------------------------------	----------------

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

Ambient temperature (storage)	-40 ... +85 °C
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; EN 61326-1; EN 50121-3-2
EMC emission of interference	EN 61000-6-3; EN 61326-1
Standards/specifications	EN 50121-3-2 DNV EN 61373

Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
eCl@ss 10.0	27-21-01-20
eCl@ss 9.0	27-21-01-20
ETIM 8.0	EC002653
ETIM 7.0	EC002653
PU (SPU)	1 pcs
Packaging type	bag
Country of origin	DE
GTIN	4045454828509
Customs tariff number	85437090300

Environmental Product Compliance

CAS-No.	7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Lead
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	aff0c6db-2e8d-40df-bb25-c0857553add0
SCIP notification number (Belgium)	e213ff0d-2609-4996-8776-552c3940adb5
SCIP notification number (Bulgaria)	fda52b6c-252d-4865-8b7b-006d61ae0362
SCIP notification number (Czech Republic)	9e6dc05b-8858-42d0-8506-d974c363c8eb

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

SCIP notification number (Denmark)	9c7f385a-1237-4d96-b43d-39905b245808
SCIP notification number (Finland)	00ecaf4e-bf48-46a7-bd9f-4304f62b07de
SCIP notification number (France)	84768d73-a171-4ad6-b0bf-c06e4790b135
SCIP notification number (Germany)	ff05be1c-f993-4d8d-87f4-089b262c2e93
SCIP notification number (Hungary)	b6abe888-47d6-44d8-beb7-2bb65ab6ef95
SCIP notification number (Italy)	38b69325-eb5e-4b88-aa3f-bf9c997c1044
SCIP notification number (Netherlands)	02d3ec9a-5098-4436-ac58-bc00c2e94d3a
SCIP notification number (Poland)	eb1f3c08-d52f-4472-9c0d-af6649be66e7
SCIP notification number (Romania)	009dc6d9-a76a-43d2-9b7b-afccef2a2776
SCIP notification number (Sweden)	3d18b596-90fd-4b86-b283-23e0a76d6d35

Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC_Certificate_RU_C- DE.AM02.B.00115_19

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications

Logo	Approval	Additional Approval Text	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

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



PRS
Polski Rejestr Statków

TE/2186
/880590/18

Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	ANSI/ISA 12.12.01	E198726

Optional accessories

Terminal blocks

Supply module

	Item no.: 857-979 Supply and through module	www.wago.com/857-979
--	---	--

Screwless end stop

Mounting accessories

	Item no.: 249-116 Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray	www.wago.com/249-116
--	--	--



Item no.: 249-117 Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray	www.wago.com/249-117
---	--



Item no.: 249-197 Screwless end stop; 14 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray	www.wago.com/249-197
---	--

Tool

Operating tool

	Item no.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured	www.wago.com/210-720
--	--	--

Relay module

Relay module

	Item no.: 857-304 Relay module; Nominal input voltage: 24 VDC; 1 changeover contact; Limiting continuous current: 6 A; Yellow status indicator; Module width: 6 mm; 2,50 mm ² ; gray	www.wago.com/857-304
--	---	--

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

Power supplies

Power supply unit



Item no.: 787-2852

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

www.wago.com/787-2852

Interface module

Interface adapters



Item no.: 857-980

Interface adapter; 16-pole; analog

www.wago.com/857-980

Cables and pluggable connectors

Communication cable



Item no.: 750-923/000-001

Configuration cable; USB connector; Length: 5 m

[www.wago.com/750-923
/000-001](http://www.wago.com/750-923/000-001)

Marking accessories

Marking strip



Item no.: 2009-110

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

www.wago.com/2009-110

Marker



Item no.: 2009-115

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

www.wago.com/2009-115



Item no.: 793-501

WMB marking card; as card; not stretchable; plain; snap-on type; white

www.wago.com/793-501



Item no.: 793-502

WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white

www.wago.com/793-502



Item no.: 793-503

WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white

www.wago.com/793-503



Item no.: 793-504

WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white

www.wago.com/793-504



Item no.: 793-505

WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; white

www.wago.com/793-505



Item no.: 793-506

WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white

www.wago.com/793-506



Item no.: 793-566

WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type; white

www.wago.com/793-566

Item no.: 793-5501

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



WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on www.wago.com/793-5501
type; white

Jumpers

Jumper



Item no.: 859-408

Jumper; for jumper slot; 8-way; insulated; light gray

www.wago.com/859-408



Item no.: 281-482

Jumper; 2-way; insulated; gray

www.wago.com/281-482



Item no.: 859-404/000-005

Jumper; for jumper slot; 4-way; insulated; red

[www.wago.com/859-404
/000-005](http://www.wago.com/859-404/000-005)



Item no.: 859-404/000-006

Jumper; for jumper slot; 4-way; insulated; blue

[www.wago.com/859-404
/000-006](http://www.wago.com/859-404/000-006)



Item no.: 859-405/000-005

Jumper; for jumper slot; 5-way; insulated; red

[www.wago.com/859-405
/000-005](http://www.wago.com/859-405/000-005)



Item no.: 859-405/000-029

Jumper; for jumper slot; 5-way; insulated; yellow

[www.wago.com/859-405
/000-029](http://www.wago.com/859-405/000-029)



Item no.: 859-405

Jumper; for jumper slot; 5-way; insulated; light gray

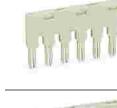
www.wago.com/859-405



Item no.: 859-404/000-029

Jumper; for jumper slot; 4-way; insulated; yellow

[www.wago.com/859-404
/000-029](http://www.wago.com/859-404/000-029)



Item no.: 859-406

Jumper; for jumper slot; 6-way; insulated; light gray

www.wago.com/859-406



Item no.: 859-405/000-006

Jumper; for jumper slot; 5-way; insulated; blue

[www.wago.com/859-405
/000-006](http://www.wago.com/859-405/000-006)



Item no.: 859-406/000-005

Jumper; for jumper slot; 6-way; insulated; red

[www.wago.com/859-406
/000-005](http://www.wago.com/859-406/000-005)



Item no.: 859-409/000-029

Jumper; for jumper slot; 9-way; insulated; yellow

[www.wago.com/859-409
/000-029](http://www.wago.com/859-409/000-029)

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

	Item no.: 859-410/000-005 Jumper; for jumper slot; 10-way; insulated; red	www.wago.com/859-410/000-005
	Item no.: 859-410/000-029 Jumper; for jumper slot; 10-way; insulated; yellow	www.wago.com/859-410/000-029
	Item no.: 859-410 Jumper; for jumper slot; 10-way; insulated; light gray	www.wago.com/859-410
	Item no.: 859-410/000-006 Jumper; for jumper slot; 10-way; insulated; blue	www.wago.com/859-410/000-006
	Item no.: 859-403/000-005 Jumper; for jumper slot; 3-way; insulated; red	www.wago.com/859-403/000-005
	Item no.: 859-402/000-029 Jumper; for jumper slot; 2-way; insulated; yellow	www.wago.com/859-402/000-029
	Item no.: 859-403/000-029 Jumper; for jumper slot; 3-way; insulated; yellow	www.wago.com/859-403/000-029
	Item no.: 859-403/000-006 Jumper; for jumper slot; 3-way; insulated; blue	www.wago.com/859-403/000-006
	Item no.: 859-408/000-005 Jumper; for jumper slot; 8-way; insulated; red	www.wago.com/859-408/000-005
	Item no.: 859-408/000-029 Jumper; for jumper slot; 8-way; insulated; yellow	www.wago.com/859-408/000-029
	Item no.: 859-409 Jumper; for jumper slot; 9-way; insulated; light gray	www.wago.com/859-409
	Item no.: 859-408/000-006 Jumper; for jumper slot; 8-way; insulated; blue	www.wago.com/859-408/000-006
	Item no.: 859-403 Jumper; for jumper slot; 3-way; insulated; light gray	www.wago.com/859-403
	Item no.: 859-409/000-005 Jumper; for jumper slot; 9-way; insulated; red	www.wago.com/859-409/000-005

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



Item no.: 859-404

Jumper; for jumper slot; 4-way; insulated; light gray

www.wago.com/859-404



Item no.: 859-409/000-006

Jumper; for jumper slot; 9-way; insulated; blue

www.wago.com/859-409/000-006



Item no.: 859-402/000-006

Jumper; for jumper slot; 2-way; insulated; blue

www.wago.com/859-402/000-006



Item no.: 859-402

Jumper; for jumper slot; 2-way; insulated; light gray

www.wago.com/859-402



Item no.: 859-402/000-005

Jumper; for jumper slot; 2-way; insulated; red

www.wago.com/859-402/000-005



Item no.: 859-406/000-006

Jumper; for jumper slot; 6-way; insulated; blue

www.wago.com/859-406/000-006



Item no.: 859-406/000-029

Jumper; for jumper slot; 6-way; insulated; signal yellow

www.wago.com/859-406/000-029



Item no.: 859-407/000-006

Jumper; for jumper slot; 7-way; insulated; blue

www.wago.com/859-407/000-006



Item no.: 859-407/000-005

Jumper; for jumper slot; 7-way; insulated; red

www.wago.com/859-407/000-005



Item no.: 859-407/000-029

Jumper; for jumper slot; 7-way; insulated; yellow

www.wago.com/859-407/000-029



Item no.: 859-407

Jumper; for jumper slot; 7-way; insulated; light gray

www.wago.com/859-407

Communication

Bluetooth



Item no.: 750-921

Bluetooth® Adapter

www.wago.com/750-921

Communication cable



Item no.: 750-923

Configuration cable; USB connector; Length: 2.5 m

www.wago.com/750-923

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

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Downloads

Documentation

Bid Text

857-401 docx - Datei	2019 Jul 18	docx 20.2 kB	Download
857-401 pdf - Datei	2019 Jul 18	pdf 78.1 kB	Download
857-401 X81 - Datei	2019 Jul 18	xml 6.8 kB	Download

Instruction Leaflet

Signal Conditioners Isolation Amplifier, configurable with Digital Output	V 2.0.0 2023 Jan 24	pdf 2.2 MB	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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Engineering-Software

Configuration and Commissioning Software

WAGO Interface Configuration Software G2 FULL The full setup, in addition to the WAGO Interface Configuration Software G2, includes the installation for the Microsoft .NET Framework.	1.00.10.01 2022 Jan 20	exe 114.9 MB	Download
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WAGO Interface Configuration Software G2 SMALL The full setup only includes the WAGO Interface Configuration Software G2.	1.00.10.01 2022 Jan 20	exe 31.0 MB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 857-401	URL	Download
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CAE data

EPLAN Data Portal 857-401	URL	Download
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Subject to changes. Please also observe the further product documentation!

WSCAD Universe 857-401

URL

Download

ZUKEN Portal 857-401

URL

Download

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 857-401

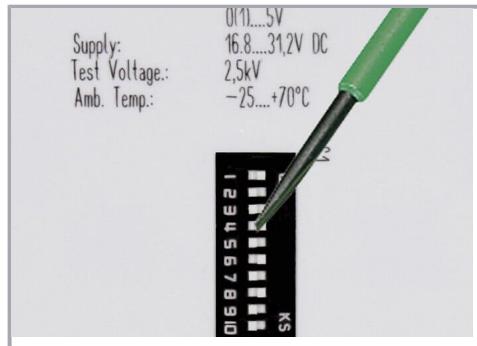
URL

Download

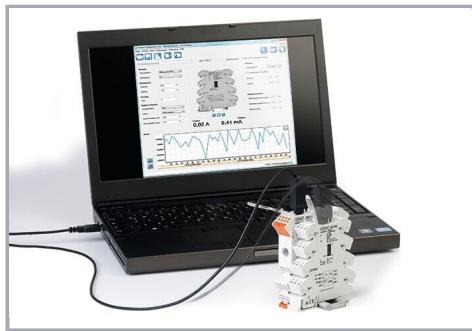
Isolation amplifier; Current and voltage input signal; Current and voltage output signal; Digital output; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm²

Installation Notes

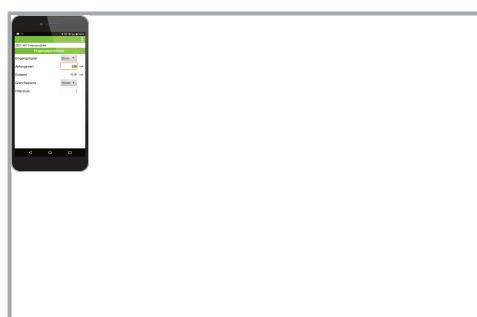
Configuring



Configuration via DIP switch



Configuration via WAGO Interface
Configuration Software



Configuration via WAGO Interface
Configuration App

Commoning

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

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

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