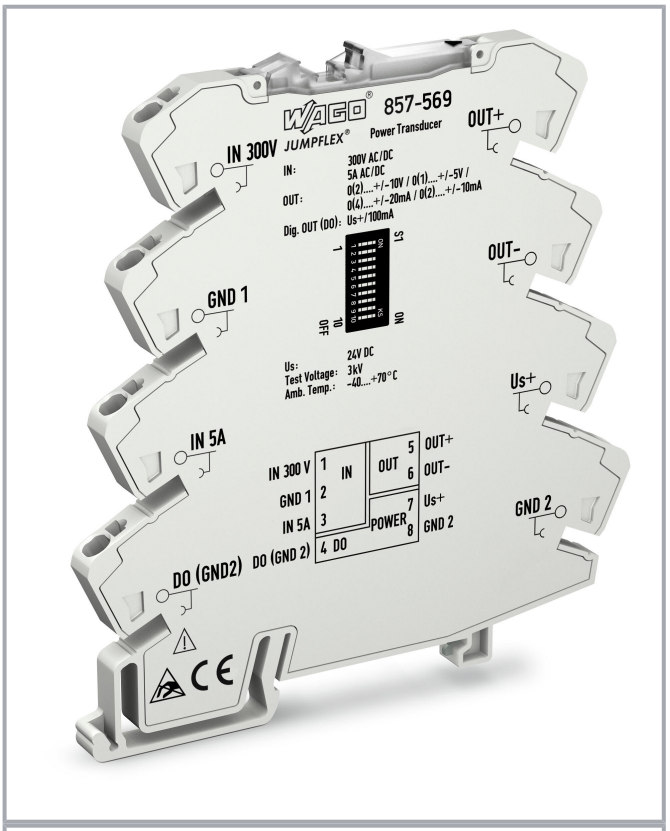
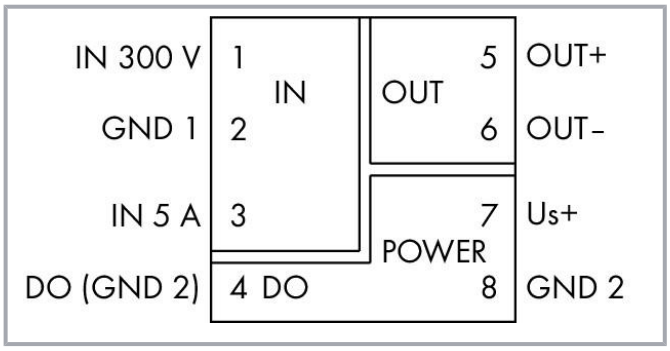
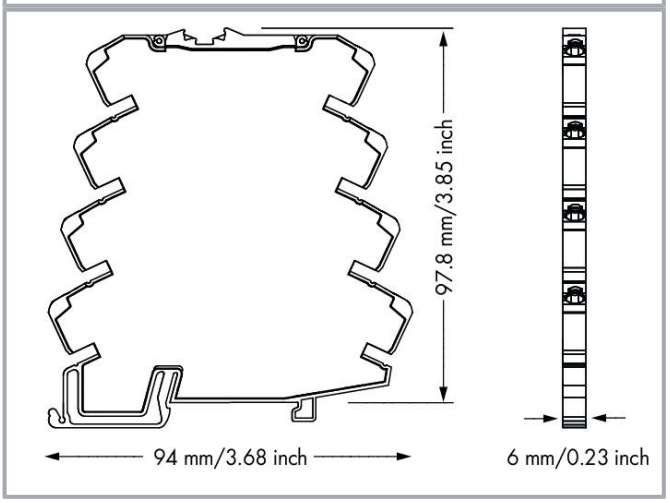
Data sheet | Item number: 857-569

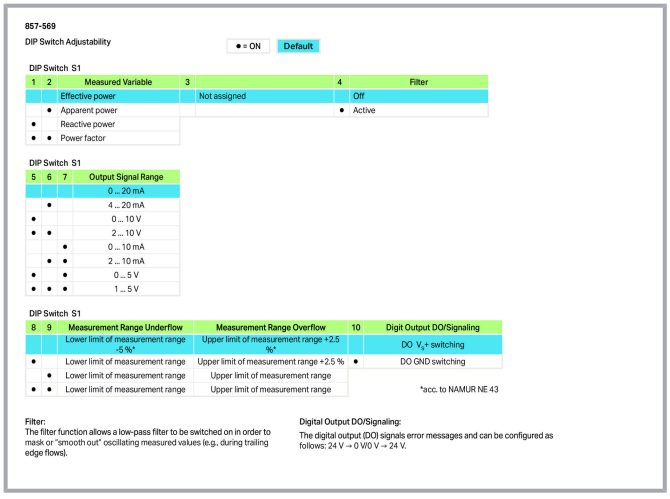
Power signal conditioner; Current and voltage input signal; Current and voltage output signal; Digital output; Configuration via software; Supply voltage: 24 VDC; 6 mm module width

www.wago.com/857-569









857-569

DIP Switch Adjustability

● = ON Default

DIP Switch S1

1	2	Measured Variable	3	4	Filter
		Effective power	Not assigned		Off
	●	Apparent power		●	Active
●		Reactive power			
●	●	Power factor			

DIP Switch S1

5	6	7	Output Signal Range
			0 ... 20 mA
	●		4 ... 20 mA
●			0 ... 10 V
●	●		2 ... 10 V
		●	0 ... 10 mA
	●	●	2 ... 10 mA
●		●	0 ... 5 V
●	●	●	1 ... 5 V

DIP Switch S1

8	9	Measurement Range Underflow	Measurement Range Overflow	10	Digit Output DO/Signaling
		Lower limit of measurement range -5 %*	Upper limit of measurement range +2.5 %*		DO V_{+} switching
●		Lower limit of measurement range	Upper limit of measurement range +2.5 %	●	DO GND switching
	●	Lower limit of measurement range	Upper limit of measurement range		
●	●	Lower limit of measurement range	Upper limit of measurement range		*acc. to NAMUR NE 43

Filter:
The filter function allows a low-pass filter to be switched on in order to mask or "smooth out" oscillating measured values (e.g. during trailing edge flows).

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.

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

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Item description

Short description:

This power measurement module measures both AC/DC voltages and currents, converting the input signal into a standard analog signal at the output.

Measured value processing can be switched between RMS value or arithmetic mean value and between effective, apparent or reactive power, and phase angle.

Features:

- Two isolated measurement inputs for both AC/DC voltages and currents
- RMS measurement or arithmetic mean value
- A digital signal output reacts to configured measurement range limits (on/off switching delay and threshold value switch function can be configured with up to two threshold values).
- Switchable filter function
- Safe 3-way isolation with 3 kV test voltage per DIN EN 61010-1

Data
Technical data

Configuration

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

Input

Input signal type	Voltage Current
Input signal (voltage)	AC/DC 300 V (IN 1)
Input signal (current)	AC/DC 0 … 5 A (IN 2)
Frequency range	15 … 70 Hz (AC)
Input resistance (current input)	≤ 10 mΩ
Input resistance (voltage input)	≥ 300 kΩ
Input current (max.)	10 A AC/DC (IN 2; permanent)
Input voltage (max.)	600 V (IN 1; permanent)
Response threshold	300 mV (IN 1); 10 mA (IN 2)
Resolution (voltage)	30 mV (IN 1)

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Resolution (current)	1 mA (IN 2)

Output – analog

Output signal type	Current Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V (can be inverted (also bipolar))
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA (can be inverted (also bipolar))
Load impedance (voltage output)	≥ 1 kΩ
Load impedance (current output)	≤ 600 Ω

Output – digital

Switching voltage (DO) (max.)	Supply voltage (applied)
Continuous current (DO) (max.)	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 or 2 (adjustable)
Configurable rise/fall delay time (DO)	0 … 60 s (via software)

Signal processing

Measurement method	RMS measurement; Arithmetic mean value
Limit frequency	2 kHz
Software filter (adjustable)	Moving average value (filter level: 30)
Step response (typ.)	100 ms

Measurement error

Transmission error (max.)	≤ 0.5 % (of the full scale value)
Temperature coefficient	≤ 0.01 %/K

Supply

Power supply type	24 VDC
Nominal supply voltage U_S	DC 24 V
Supply voltage range	±30 %
Power consumption at nominal supply voltage	≤ 46 mA (+ I_{DO})

Safety and protection

Measurement category per EN/UL 61010-2-030	CAT II (input)
Note on insulation parameters	**Danger:** Configuration via the service interface must only be

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	performed with a voltage-free measurement input! Danger: Configuration via the service interface must only be performed with a voltage-free measurement input! The digital output (DO) is at the potential of the supply
Protection type	IP20

Test voltage

Test voltage (input/analog output/supply/service interface)	2.5 kVAC; 50 … 60 Hz; 1 min

Insulation parameters per EN/UL 61010-1

Line-to-neutral conductor voltage (AC) max.	150 V
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply/service interface)	Reinforced insulation

Insulation parameters per EN 61010-1

Line-to-neutral conductor voltage (AC) max.	300 V
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply/service interface)	Double insulation (impedance and basic insulation) Requirement: The GND 1 input is dangerous when active and the measurement is conducted as a low-side measurement!

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 inch

Physical data

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

Mechanical data

Mounting type	DIN-35 rail

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Material data

Fire load	0.015 MJ
Weight	39.2 g

Environmental requirements

Surrounding air temperature (operation)	-40 … 70 °C (at nominal current)
Surrounding air temperature (storage)	-40 … 85 °C
Temperature range of the connecting cable according to EN 61010-2-201	≥ ($T_{surrounding\ air}$ + 10 K)
Temperature range of connecting cable per UL 61010-2-201 (min.)	90 °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 61326-2-3; EN 50121-3-2
EMC emission of interference	EN 61000-6-3; EN 61326-2-3; EN 50121-3-2
Standards/Specifications	EN 61010-1 EN 61373

Commercial data

PU (SPU)	1 Each
Packaging type	bag
Country of origin	DE
GTIN	4055143501026
Customs tariff number	85437090300

Approvals / Certificates

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 61010-2-201	E175199

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Optional accessories

Cables and pluggable connectors

Communication cable

	Item no.: 750-923 Configuration cable; USB connector; Length: 2.5 m	www.wago.com/750-923
	Item no.: 750-923/000-001 Configuration cable; USB connector; Length: 5 m	www.wago.com/750-923 /000-001

Terminal blocks

Through terminal block

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

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; 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
	Item no.: 859-404/000-006 Jumper; for jumper slot; 4-way; insulated; blue	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
	Item no.: 859-405/000-029 Jumper; for jumper slot; 5-way; insulated; yellow	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

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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



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



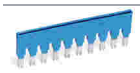
Item no.: 859-410/000-005
Jumper; for jumper slot; 10-way; insulated; red
www.wago.com/859-410/000-005



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

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	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
	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

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	**Item no.: 859-407** Jumper; for jumper slot; 7-way; insulated; light gray	www.wago.com/859-407

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

Interface module

Interface adapter

	**Item no.: 857-980** Interface adapter; 16-pole; analog	www.wago.com/857-980

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

Power supplies

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Power supply

	Item no.: 787-2852 Switched-mode power supply; 1-phase; 24 VDC output voltage; 1 A output current; -	www.wago.com/787-2852

Downloads

Documentation

Bid Text

857-569 pdf - Datei	2019. 7. 18.	pdf 80.5 kB	Download
857-569 X81 - Datei	2019. 7. 18.	xml 8.1 kB	Download
857-569 docx - Datei	2019. 7. 18.	docx 20.8 kB	Download

Instruction Leaflet

Signal conditioner; power; configurable; with digital output	V 2.0.0 2020. 9. 29.	pdf 2.5 MB	Download

Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download

Engineering-Software

Software for Interface-Products

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.	1.0.7.9 2021. 4. 8.	exe 114.0 MB	Download
WAGO Interface Configuration Software G2 SMALL The full setup only includes the WAGO Interface Configuration Software G2.	1.0.7.9 2021. 4. 8.	exe 30.0 MB	Download

CAD/CAE-Data

CAD data

2D/3D Models 857-569		URL	Download

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CAE data

WSCAD Universe 857-569	URL	Download
ZUKEN Portal 857-569	URL	Download
EPLAN Data Portal 857-569	URL	Download

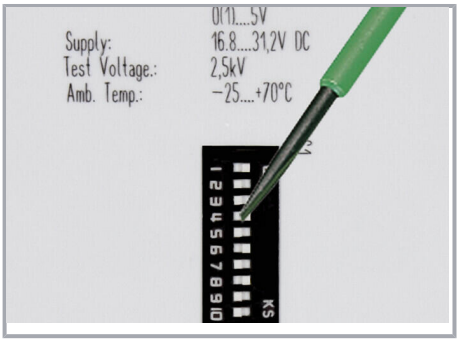
Environmental Product Compliance

Compliance Search

Environmental Product Compliance 857-569 Power signal conditioner; Current and voltage input signal; Current and voltage output signal; Digital output; Configuration via software; Supply voltage: 24 VDC; 6 mm module width	URL	Download

Installation Notes

Configuration



Configuration via DIP switch



Configuration via WAGO Interface
Configuration Software

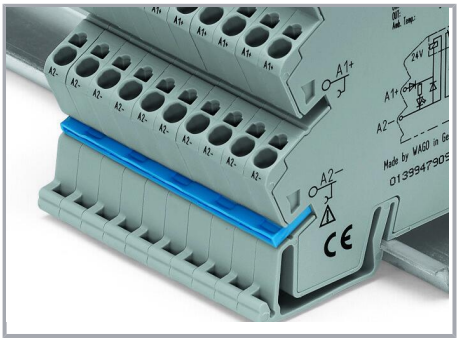


Configuration via WAGO Interface
Configuration App

Commoning

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

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