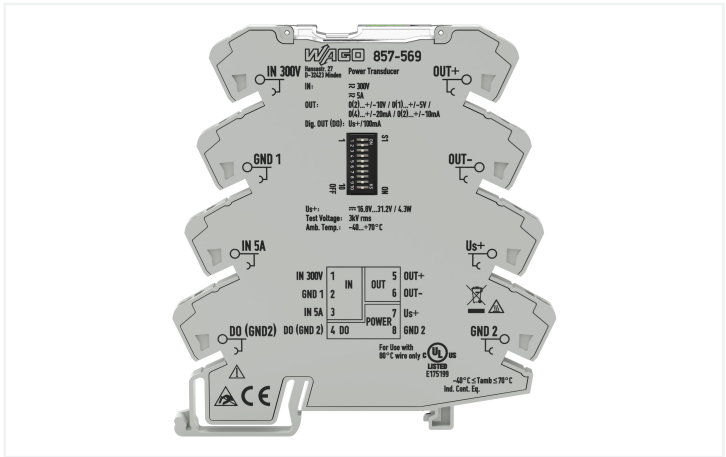


Data Sheet | Item Number: 857-569

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

<https://www.wago.com/857-569>



IN 300 V	1	IN	5	OUT+
			6	OUT-
GND 1	2			
			7	Us+
IN 5 A	3	POWER	8	GND 2
DO (GND 2)	4 DO			



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	Digital 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		• DO GND switching
		• Lower limit of measurement range	Upper limit of measurement range		
		• Lower limit of measurement range	Upper limit of measurement range		

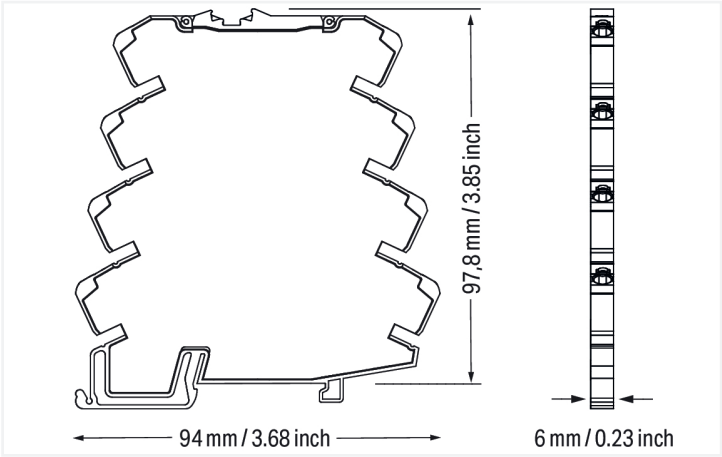
Filter:

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.

*acc. to NAMUR NE 43



Short description:

WAGO's 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
- 3-way electrical isolation with 2.5 kV test voltage



Technical data			
Configuration		Input	
Configuration options	DIP switch WAGO Interface Configuration Software	Input signal type	Voltage Current
		Input signal (voltage)	300 V AC/DC (IN 1)
		Input signal (current)	0 ... 5 A AC/DC (IN 2)
		Measurement frequency	15 ... 70 Hz (AC)
		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)
		Resolution (current)	1 mA (IN 2)
Output (analog)		Output (digital)	
Output signal type	Current Voltage	Switching voltage (DO) max.	Supply voltage applied
Output signal (voltage)	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V (invertible, also bipolar)	Continuous current (DO) max.	100 mA (no internal restriction)
Output signal (current)	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA (invertable, also bipolar)	Number of switching thresholds (DO)	1 or 2 (adjustable)
Load impedance (voltage output)	≥ 1 kΩ	Configurable rise/fall delay time (DO)	0 ... 60 s (via software)
Load impedance (current output)	≤ 600 Ω		
Signal processing		Measurement error	
Measurement method	RMS measurement; Arithmetic mean value	Transmission error (max.)	≤ 0.5 % (of the full scale value)
Limit frequency	2 kHz	Temperature coefficient	≤ 0.01 %/K
Software filter (adjustable)	Moving average value (filter level: 30)		
Step response (typ.)	100 ms		
Power supply			
Power supply type	24 VDC		
Nominal supply voltage U _S	24 VDC		
Supply voltage range	±30 %		
Current consumption at nominal supply voltage	≤ 46 mA (+ I _{DO})		
Safety and protection			
Rated Voltage	300 V; 150 V (UL)	Test voltage	
Measurement category per EN/UL 61010-2-030	CAT II (input)	Test voltage (input/analog output/supply/ service interface)	2.5 kVAC; 50 ... 60 Hz; 1 min
Note on insulation parameters	Danger: Configuration via the service interface must only be performed with a voltage-free measurement input! The digital output (DO) operates at the supply potential.		
Protection type	IP20		



Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply/service interface)	Reinforced insulation (safe isolation)

Insulation coordination	
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 must not become hazardous when active and the measurement is performed 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 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	
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.013 MJ
Weight	39.2 g

Environmental requirements	
Ambient temperature (operation)	-40 ... +70 °C (at nominal current)
Ambient temperature (storage)	-40 ... +85 °C
Temperature range of connection cable	≥ (T _{ambient} + 10 K)
Temperature range of the connection cable (UL)	80 °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 EN 50121-3-2



Commercial data		
PU (SPU)		1 pcs
Packaging type		Bag
Country of origin		DE
GTIN		4055143501026
Customs tariff number		85437090300

Product classification		
UNSPSC		41113630
eCl@ss 10.0		27-21-01-24
eCl@ss 9.0		27-21-01-24
ETIM 9.0		EC002476
ETIM 8.0		EC002476
ECCN		NO US CLASSIFICATION

Environmental Product Compliance		
CAS-No.		11120-22-2 1303-86-2 1317-36-8 7439-92-1 75980-60-8
REACH Candidate List Substance		Diboron trioxide Lead Lead monoxide Lead silicate 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)		0334ed74-ca93-4ebb-9687-7fb41083b84c
SCIP notification number (Belgium)		52197f75-6ee4-4832-ba31-18d590a3cfc1
SCIP notification number (Bulgaria)		33ab3002-8078-4165-92e1-c0183f8b20da
SCIP notification number (Czech Republic)		aad42d90-b712-478c-bff1-e9e87a65592d
SCIP notification number (Denmark)		f6f5a36a-e242-49e2-9aa3-037e7aa732c4
SCIP notification number (Finland)		90b8099b-7e3d-487a-9368-3d7c1ccc173
SCIP notification number (France)		f9b95d5c-28d6-45d8-9a80-bbdd9b41a7b6
SCIP notification number (Germany)		98311d18-05a3-429a-8648-c06160b9eb34
SCIP notification number (Hungary)		41ffffef-697d-497d-b974-99c265608896
SCIP notification number (Italy)		cb3a3c8d-ca04-4627-bd73-565ab7b2f02a
SCIP notification number (Netherlands)		49dd2d9e-c918-4cf5-80c7-bb23a3ba8864
SCIP notification number (Poland)		c4a7f19d-f681-49eb-a9e6-0e311ace9798
SCIP notification number (Romania)		5bf080aa-49b1-4698-b403-928127389211
SCIP notification number (Sweden)		b5c152bb-1fdd-4c12-80a1-d0beccdd5021e



Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 004/2011	EAC CoC 03078
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 61010-2-201	E175199

Declarations of conformity and manufacturer's declarations

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

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 857-569

Documentation

Manual
WAGO Current and Voltage Signal Conditioners and Power Measurement Modules

Bid Text			
857-569	18.07.2019	xml 7.92 KB	
857-569	18.07.2019	docx 20.34 KB	
857-569	18.07.2019	pdf 78.59 KB	

Instruction Leaflet			
Signal conditioner; power; configurable; with digital output	V 2.0.0 29.09.2020	pdf 2398.27 KB	

CAD/CAE-Data

CAD data
2D/3D Models 857-569

CAE data
EPLAN Data Portal 857-569
WSCAD Universe 857-569
ZUKEN Portal 857-569



1 Compatible Products			
1.1 Optional Accessories			
1.1.1 Cables and connectors			
1.1.1.1 Communication cable			
			
Item No.: 750-923/000-001 Configuration cable; USB connector; Length: 5 m			
1.1.2 Communication			
1.1.2.1 Bluetooth			
			
Item No.: 750-921 Bluetooth® Adapter			
1.1.2.2 Communication cable			
			
Item No.: 750-923 Configuration cable; USB connector; Length: 2.5 m			
1.1.3 Interface module			
1.1.3.1 Interface adapters			
			
Item No.: 857-980 Interface adapter; 16-pole; analog			
1.1.4 Jumper			
1.1.4.1 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



1.1.4.1 Jumper

 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
 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			

1.1.5 Marking

1.1.5.1 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			



1.1.5.2 Marking strip



Item No.: 2009-110
Marking strips; for Smart Printer; on reel;
not stretchable; plain; snap-on type; white

1.1.6 Power supply

1.1.6.1 Power Supply



Item No.: 787-2852
Switched-mode power supply; 1-phase;
24 VDC output voltage; 1 A output current

1.1.7 Power tap

1.1.7.1 Power tap



Item No.: 855-8015
Power tap; for busbar; with fuse; Clamping
connection



Item No.: 855-8006
Power tap; for busbar; with fuse; Moun-
ting screw M6



Item No.: 855-8008
Power tap; for busbar; with fuse; Moun-
ting screw M8



Item No.: 855-8003
Power tap; with fuse; 10 mm² (8 AWG) - 16
mm² (6 AWG); Phase



Item No.: 855-8001
Power tap; with fuse; 2,5 mm² (12 AWG) - 6
mm² (10 AWG); Phase



Item No.: 855-8004
Power tap; without fuse; 10 mm² (8 AWG)
- 16 mm² (6 AWG); N-conductor



Item No.: 855-8002
Power tap; without fuse; 2,5 mm² (12
AWG) - 6 mm² (10 AWG); N-conductor

1.1.8 Relay module

1.1.8.1 Relay module



Item No.: 857-304
Relay module; Nominal input voltage: 24
VDC; 1 changeover contact; Limiting con-
tinuous current: 6 A; Yellow status indica-
tor; Module width: 6 mm; gray

1.1.9 Screwless end stop

1.1.9.1 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

1.1.10 Terminal blocks

1.1.10.1 Supply module



Item No.: 857-979
Supply and through module

1.1.10.2 Through terminal block



Item No.: 857-979
Supply and through module

1.1.11 Tool

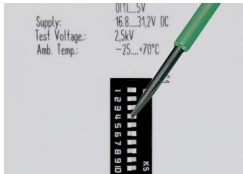
1.1.11.1 Operating tool



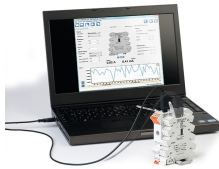
Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Installation Notes

Configuring

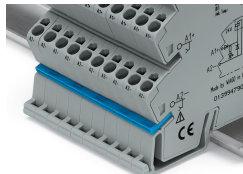


Configuration via DIP switch



Configuration via WAGO Interface Configuration Software

Commoning



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