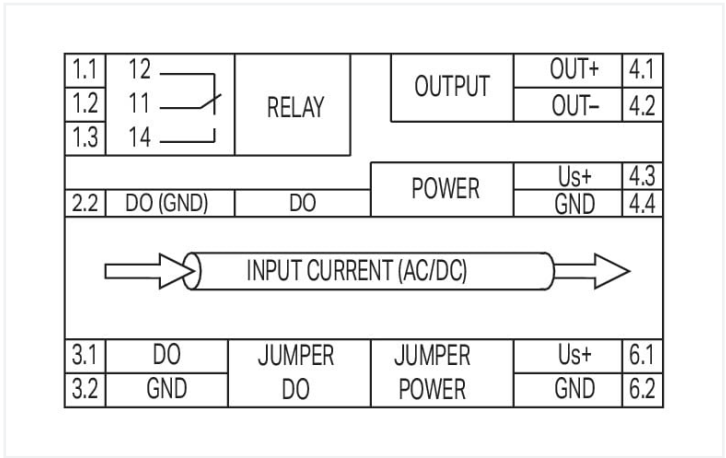
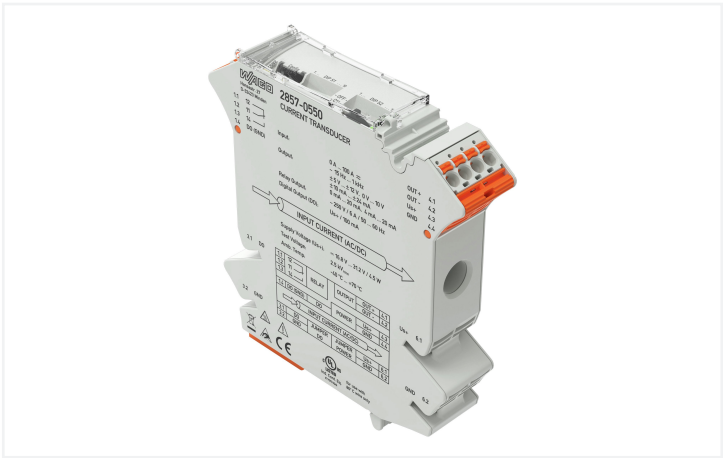


Data Sheet | Item Number: 2857-550

Current signal conditioner; Current input signal; Current and voltage output signal;
Digital and relay output; Configuration via software; Supply voltage: 24 VDC; 22.5 mm module width

<https://www.wago.com/2857-550>



2857-550
DIP Switch Adjustability

• = ON

• = OFF

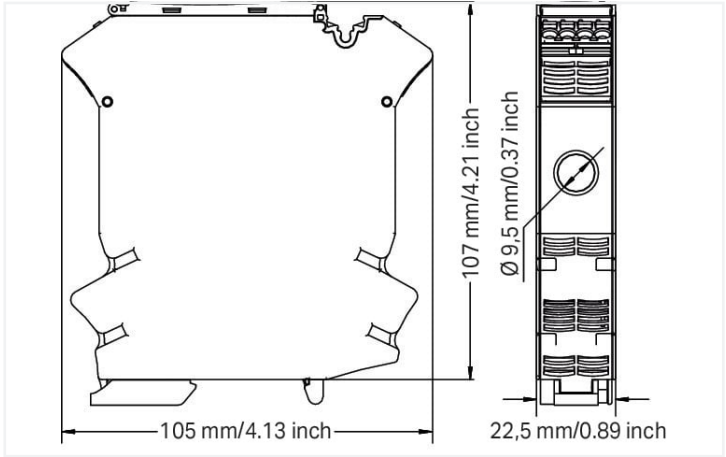
• = Default

DIP Switch S1			
Measurement method	Filter	Analog Output, Inverted	Output Signal (Bipolar for Arithmetic Mean Value)
1: True RMS	2: inactive	3: Not inverted	4: 0 ... 20 mA
• Arithmetic mean value (Output signal bipolar)	• active	• Inverted	• 4 ... 20 mA
			• 0 ... 10 V
			• 2 ... 10 V
			• 0 ... 10 mA
			• 2 ... 10 mA
			• 0 ... 5 V
			• 1 ... 5 V

DIP Switch S1			
Measurement Range Underflow	Measurement Range Overflow	Overcurrent (Input Signal End Value + 20%)	Digital Output (DO) Relay
7: Lower limit of output range -1%	8: Upper limit of output range +2.5%	9: Upper limit of output range +1%	10: Off
• Lower limit of output range	• Upper limit of output range +2.5%	• Upper limit of output range +1%	• DO L+ switching - Relay pulls in
• Lower limit of output range	• Upper limit of output range	• Lower limit of output range -5%	• DO GND switching - Relay drops out
• Lower limit of output range -5%	• Upper limit of output range +5%	• Upper limit of output range	• Off

*acc. to NAMUR NE 42

DIP Switch S2			
Start Value		End Value	
1: A / % (BRMS)	2: A / % (BRMS)	3: Software configuration 04	4: Software configuration 100
• 0	• -100	• 100	
• 5	• -75	• 80	
• 8	• -50	• 70	
• 10	• -25	• 60	
• 12	• -10	• 50	
• 14	• 0	• 40	
• 16	• 5	• 30	
• 18	• 10	• 20	
• 20	• 15	• 10	
• 25	• 20		
• 30	• 25		
• 35	• 30		
• 40	• 35		
• 45	• 40		
• 50	• 50		



Dimensions in mm

Short description:

WAGO's current signal conditioner measures AC/DC currents up to 100 A, while converting the measured current into an analog standard signal at the output.

Features:

- Both digital signal output and relay with changeover contact react to configured measurement range limits (on/off switching delay and threshold value switch function can be configured with up to two threshold values).
- Clipping capability for analog signal limitation to output end values
- Adjustable software filter
- Input/output response simulation via configuration display
- Safe 3-way isolation with 3 kV test voltage per EN 61010-1

Notes	
Note	• This product is supplied with 24 VDC, which can be commoned using lateral push-in type jumper bars: (6.1) U_S+ (BR) and (6.2) GND 2 (BR). With this variant, it is necessary to ensure that the maximum permissible total current of 2 A is not exceeded. • Additional setting options via WAGO Interface Configuration Software or WAGO Configuration Display

Technical data



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

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)	≥ 1 kΩ
Load impedance (current output)	≤ 600 Ω

Output (relay)	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Switching voltage (max.)	AC 250 V
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	8 ms
Number of switching thresholds (relay)	1 or 2 (adjustable)
Configurable rise/fall delay time (relay)	0 ... 60 s (via software)

Signal processing	
Measurement method	True RMS measurement; Arithmetic mean value
Limit frequency	3.3 kHz
Software filter (adjustable)	Moving average value (filter level: 30)
Step response (typ.)	60 ms (DC; for software filter 3/default setting); 250 ms (AC)

Supply	
Power supply type	24 VDC
Nominal supply voltage U _S	DC 24 V
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 50 mA (+ I _{DO})

Safety and protection

Input	
Input signal type	Current
Input signal (current)	AC 0.5 ... 100 A DC ±100 A
Frequency range	15 ... 1000 Hz
Input current (max.)	100 A AC/DC
Response threshold	500 mA (AC); 250 mA (DC)
Resolution (current)	10 mA

Output (digital)	
Switching voltage (DO) max.	Supply voltage (applied): -0.3 V
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)

Signaling and communication	
Configuration options	WAGO Configuration Display WAGO Interface Configuration App WAGO Interface Configuration Software DIP switch

Measurement error	
Transmission error (max.)	≤ 1 % (of the full scale value)
Temperature coefficient	≤ 0.01 %/K



Rated voltage	300 V
Rated voltage of the measurement circuit connections per EN 61010-2-030	AC 300 V
Measurement category per EN/UL 61010-2-030	CAT II (input)
Note on insulation parameters	The digital output (DO) is at the potential of the supply.
Protection type	IP20

Insulation parameters(UL)	
Overvoltage category	II
Pollution degree	2
Insulation type (measurement circuit/relay output, supply, analog output and service interface)	Double insulation (safe isolation)
Insulation type (analog output/service interface)	Basic insulation
Insulation type (relay output/supply/analog output and service interface)	Reinforced insulation (safe isolation)

Connection data	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	picoMAX® 5.0
Solid conductor	0.2 ... 2.5 mm² / 24 ... 12 AWG
Fine-stranded conductor	0.2 ... 2.5 mm² / 24 ... 12 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inches
Feedthrough for measurement conductor	9.5 mm Ø

Physical data	
Width	22.5 mm / 0.886 inches
Height	105 mm / 4.134 inches
Depth from upper-edge of DIN-rail	107 mm / 4.213 inches

Mechanical data	
Mounting type	DIN-35 rail

Material data	
Fire load	1.791 MJ
Weight	102.9 g

Environmental requirements	
Ambient temperature (operation)	-40 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Temperature range of connection cable	≥ (T _{ambient} + 10 K)
Temperature range of connection cable (UL)	80 °C

Test voltage	
Test voltage (input/output/supply)	AC 3 kV; 50 Hz; 1 min
Test voltage (measurement circuit/relay output/supply/analog output)	3 kVAC; 50 ... 60 Hz; 1 min
Test voltage (measurement circuit/relay output/supply/service interface)	3 kVAC; 50 ... 60 Hz; 1 min
Test voltage (analog output/service interface)	2 kVAC; 50 ... 60 Hz; 1 min



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 61000-6-4; EN 61326-2-3; EN 50121-3-2
Standards/specifications	EN 61010-1 EN 61373 EN 50121-3-2

Commercial data	
Product Group	6 (INTERFACE ELECTRONIC)
eCl@ss 10.0	27-21-01-23
eCl@ss 9.0	27-21-01-23
ETIM 8.0	EC002475
ETIM 7.0	EC002475
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4050821676997
Customs tariff number	85437090300

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungs- stelle	TP TC 020/2011	EAC_Certificate_RU_C- DE.AM02.B.00115_19
EAC Brjansker Zertifizierungs- stelle	TP TC 004/2011	EAC RU C-DE.AM02. B.00122/19
UL Underwriters Laboratories Inc. (ORDINARY LOCATI- ONS)	UL 61010-2-201	E175199

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 2857-550



Documentation



Additional Information			
Mesumformer, Strom-mesumformer AC/DC 100 A	pdf	1486.50 KB	↓
2857-550, Additional Information	pdf	71.51 KB	↓

Bid Text			
2857-550	15.07.2019	xml 8.44 KB	↓
2857-550	15.07.2019	docx 21.59 KB	↓
2857-550	15.07.2019	pdf 81.83 KB	↓

Instruction Leaflet			
Current Signal Condi-tioner AC/DC 100 A	V 2.0.0 30.09.2020	pdf 2838.74 KB	↓

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 2857-550	EPLAN Data Portal 2857-550
↓	↓
	WSCAD Universe 2857-550
	↓
	ZUKEN Portal 2857-550
	↓

Engineering-Software			
Software for Interface-Products			
WAGO Interface Confi-guration Software G2 FULL	1.0.8.6 20.01.2022	exe 111289.67 KB	↓
WAGO Interface Confi-guration Software G2 SMALL	1.0.8.6 20.01.2022	exe 29307.84 KB	↓

Runtime Software			
Firmware			
2857-0550, Strommes-sumformer	V 04 01.03.2022	zip 582.66 KB	↓

1 Compatible Products
1.1 Optional Accessories
1.1.1 Communication

1.1.1.1 Bluetooth



[Item No.: 750-921](#)
Bluetooth® Adapter

1.1.1.2 Communication cable



[Item No.: 750-923](#)
Configuration cable; USB connector;
Length: 2.5 m



[Item No.: 750-923/000-001](#)
Configuration cable; USB connector;
Length: 5 m

1.1.1.3 Configuration display



[Item No.: 2857-900](#)
Configuration display

1.1.2 Installation

1.1.2.1 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

1.1.3 Jumper

1.1.3.1 Jumper



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



[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

1.1.4 Marking

1.1.4.1 Marker



[Item No.: 2009-141](#)
Micro-WSB-Inline; 2000 pieces on roll;
plain; snap-on type; white



[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 mar-
king; snap-on type; white



[Item No.: 793-566](#)
WMB marking card; as card; MARKED; 1 ...
50 (2x); not stretchable; Horizontal mar-
king; 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



1.1.4.1 Marker



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 unit



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

1.1.6 Relay module

1.1.6.1 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 mm²; gray

1.1.7 Terminal blocks

1.1.7.1 Supply module



Item No.: 857-979
Supply and through module

1.1.7.2 Through terminal block



Item No.: 857-979
Supply and through module

1.1.8 Test and measurement

1.1.8.1 Testing accessories



Item No.: 735-500
WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 6 mm uninsulated; Test lead for soldering up to 0,5mm²

1.1.9 Tool

1.1.9.1 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



Configuration via WAGO Interface Configuration App



Configuration via WAGO Configuration Display

Conductor termination

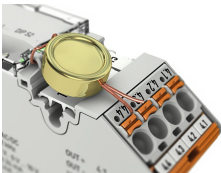


Pluggable connection technology



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

Security



Lock-out seal option