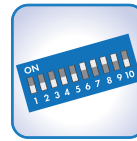


Configuration via:



DIP switch



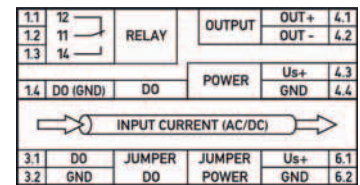
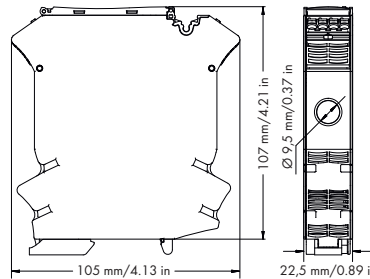
Interface configuration software



Interface configuration app



Configuration display



**Short description:**

The 2857-550 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 measuring range limits (switching ON/OFF delay and threshold value switch function configurable with up to two threshold values).
- Clipping capability provides analog signal limitation to output end values.
- Adjustable software filter
- Input/Output response simulation via configuration display
- Safe 3-way isolation with 4 kV test voltage acc. to EN 61140

Description	Item No.	Pack. Unit
<b>JUMPFLEX®</b> Signal Conditioner, for DIN 35 rail Current Signal Conditioner AC/DC 100 A	<b>2857-550</b>	1
<b>Technical Data</b>		
<b>General specifications:</b>		
Max. operating frequency	3.3 kHz	
Response time	Signal cycle duration + 1 ms	
Response time (T <sub>10-90</sub> )	max. 60 ms	
Filter (T <sub>10-90</sub> )	Software filter: 600 ms	
Linearity error	≤ 1 %	
Measurement error	≤ 0.2 % (of the full scale value)	
Temperature coefficient	≤ 0.01 %/K	
<b>Environmental requirements:</b>		
Ambient operating temperature	-40 °C ... +70 °C	
Storage temperature	-40 °C ... +85 °C	
<b>Safety and protection:</b>		
Test voltage (input/output/supply)	2.5 kV AC, 50 Hz, 1 min.	
Test voltage (measuring circuit - output)	4 kV AC, 50 Hz, 1 min.	
<b>Connection and type of mounting:</b>		
Wire connection	CAGE CLAMP® S (picoMAX® 5.0)	
Cross sections	solid/fine-stranded: 0.2 ... 2.5 mm <sup>2</sup> / AWG 24 ... 12	
Strip length	9 ... 10 mm / 0.35 ... 0.39 in	
Power cable feed-through	∅ 9.5 mm	
<b>Dimensions and weight:</b>		
Dimensions (mm) W x H x L	22.5 x 107 x 105	
	Height from upper-edge of DIN 35 rail	
Weight	106 g	
<b>Standards and approvals:</b>		
Conformity marking	CE	
Standards/Specifications	DIN EN 61010-1:2010; DIN EN 60664-1:2008; Safe isolation acc. to DIN EN 61140:2002; IEC 61000-6-2; IEC 61000-6-4	
<b>Accessories:</b>		
	see pages 226 ... 236	

Technical Data	
<b>Configuration:</b>	
Configuration	DIP switch, interface configuration software, interface configuration app, configuration display
<b>Input:</b>	
Input signal	500 mA ... 100 A (AC) / -100 A ... 100 A (DC)
Response threshold	500 mA (AC) / 250 mA (DC)
Resolution	10 mA
Frequency range	15 Hz ... 1000 Hz
<b>Output:</b>	
Output signal	<b>Current:</b> ± 10 mA; 0 ... 10 mA; 2 ... 10 mA; ± 20 mA; 0 ... 20 mA; 4 ... 20 mA <b>Voltage:</b> ± 5 V; 0 ... 5 V; 1 ... 5 V; ± 10 V; 0 ... 10 V; 2 ... 10 V
Overcurrent	0% or +5% (e.g., 10.5 V / 24 mA)
Measuring range overflow/underflow	0% or +2.5%
Load impedance	<b>Current:</b> ≤ 600 Ω; <b>Voltage:</b> ≥ 1 kΩ
Measuring procedure	True RMS measurement (TRMS) or Arithmetic mean value
<b>Output - Digital:</b>	
Max. switching voltage	Supply voltage applied -0.3 V
Max. continuous current I <sub>DO</sub>	100 mA (no internal restriction)
<b>Output - Relay:</b>	
Contact type	1 changeover contact (1 u)
Contact material	AgNi (gold-plated)
Max. switching voltage	250 VAC
Max. continuous current (terminal blocks in a row)	6 A (up to 60 °C), 3 A (60 °C ... 70 °C)
Dielectric strength open contact (AC, 1 min)	1 kV <sub>rms</sub>
Pull-in/drop-out/bounce time typ.	8 ms / 4 ms / 8 ms
<b>General specifications:</b>	
Nominal supply voltage V <sub>S</sub>	24 VDC
Supply voltage range	16.8 V ... 31.2 V (-30 % ... +30 %)
Current consumption at 24 VDC	≤ 50 mA (+ I <sub>DO</sub> )

## DIP Switch Adjustability

● = ON

2857-550

### DIP Switch S1

Measuring Method		Filter		Analog Output Inverted		Output Signal (Bipolar for Arithmetic Mean Value)			
1		2		3		4	5	6	
	True RMS		inactive		not inverted				Analog Output (±) 0 ... 20 mA
●	Arithmetic mean value (bipolar output)	●	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

Measuring Range Underflow		Measuring Range Overflow		Overcurrent (Input Signal - End Value +20%)		Digital Output (DO)/ Relay		
7	8					9	10	
		Lower measuring range -5% *	Upper measuring range +2.5% *	Upper measuring range +5%				Off
●		Lower measuring range	Upper measuring range +2.5%	Upper measuring range +5%		●		DO US+ switching - relay pulls in
	●	Lower measuring range	Upper measuring range	Lower measuring range			●	DO GND switching - relay drops out
●	●	Lower measuring range -5%	Upper measuring range +5%	Upper measuring range		●	●	Off

\* acc. to NAMUR NE 43

### DIP Switch S2

Lower Value				Upper value		
1	2	3	4	A / % (RMS)	A / % (arithmetic mean value)	A / %
				Software configuration (0)	Software configuration (-100)	Software configuration (100)
●				0	-100	100
	●			5	-75	90
●	●			8	-50	70
		●		10	-25	50
●		●		12	-10	30
	●	●		14	0	20
●	●	●		16	5	10
			●	18	10	
●			●	20	15	
	●		●	25	20	
●	●		●	30	25	
		●	●	35	30	
●		●	●	40	35	
	●	●	●	45	40	
●	●	●	●	50	50	