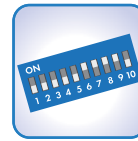




Configuration via:



DIP switch



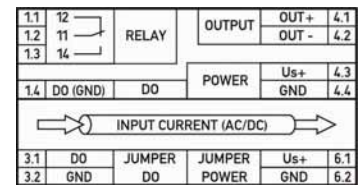
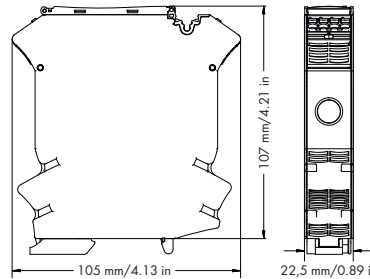
Interface configuration software



Interface configuration app



Configuration display



Short description:

The 2857-550 Current Transducer 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
JUMPFLEX® Transducer, for DIN 35 rail Current Transducer AC/DC 100 A	2857-550	1

Technical Data	
General specifications:	
Max. operating frequency	3.3 kHz
Response time	Signal cycle duration + 1 ms
Response time (T_{10-90})	max. 60 ms
Filter (T_{10-90})	Software filter: 600 ms
Linearity error	≤ 1 %
Measurement error	≤ 0.2 % (bezogen auf Messbereichsende)
Temperature coefficient	≤ 0.01 %/K
Environmental requirements:	
Ambient operating temperature	-40 °C ... +70 °C
Storage temperature	-40 °C ... +85 °C
Safety and protection:	
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.
Connection and type of mounting:	
Wire connection	CAGE CLAMP® S (picoMAX® 5.0)
Cross sections	solid/fine-stranded: 0.2 ... 2.5 mm ² / AWG 24 ... 12
Strip length	9 ... 10 mm / 0.35 ... 0.39 in
Power cable feed-through	Ø 9.5 mm
Recommended measurement conductor cross-section	16 mm ² ; max. 25 mm ²
Dimensions and weight:	
Dimensions (mm) W x H x L	22.5 x 107 x 105
	Height from upper-edge of DIN 35 rail
Weight	106 g
Standards and approvals:	
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
Accessories:	
	For accessories, see Full Line Catalog INTERFACE ELECTRONIC 2012/2013

Technical Data	
Configuration:	
Configuration	DIP switch, interface configuration software, interface configuration app, configuration display
Input:	
Input signal	AC/DC 100 A
Response threshold	10 mA (DC) / 500 mA (AC)
Resolution	10 mA
Frequency range	15 Hz ... 1000 Hz
Output:	
Output signal	Current: ± 10 mA; 0 ... 10 mA; 2 ... 10 mA; ± 20 mA; 0 ... 20 mA; 4 ... 20 mA Voltage: ± 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	Current: ≤ 600 Ω; Voltage: ≥ 1 kΩ
Measuring procedure	True RMS measurement (TRMS) or Arithmetic mean value
Output - Digital:	
Max. switching voltage	Supply voltage applied -0.3 V
Output - Relay:	
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 _{rms}
Pull-in/drop-out/bounce time typ.	8 ms / 4 ms / 8 ms
Max. continuous current I _{DC}	100 mA (no internal restriction)
General specifications:	
Supply voltage U _s	24 VDC
Supply voltage range	16.8 V ... 31.2 V (-30 % ... +30 %)
Current consumption at 24 VDC	≤ 50 mA (+ I _{DC})

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	5	6	7	
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			
●			●	20			
	●		●	25			
●	●		●	30			
		●	●	35			
●		●	●	40			
	●	●	●	45			
●	●	●	●	50			