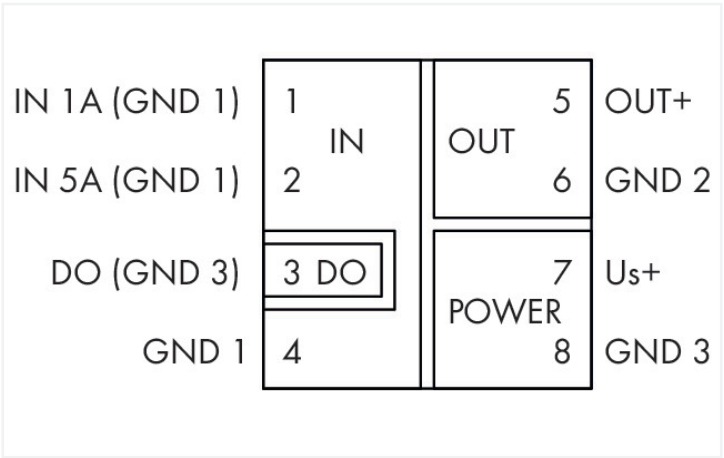
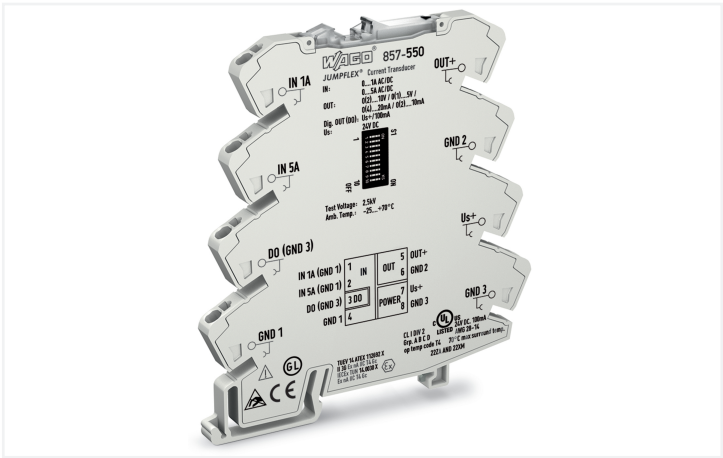


Data Sheet | Item Number: 857-550

Current signal conditioner; Current input signal; Current and voltage output signal; Digital output; Configuration via software; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm²



<https://www.wago.com/857-550>



857-550
DIP Switch Adjustability

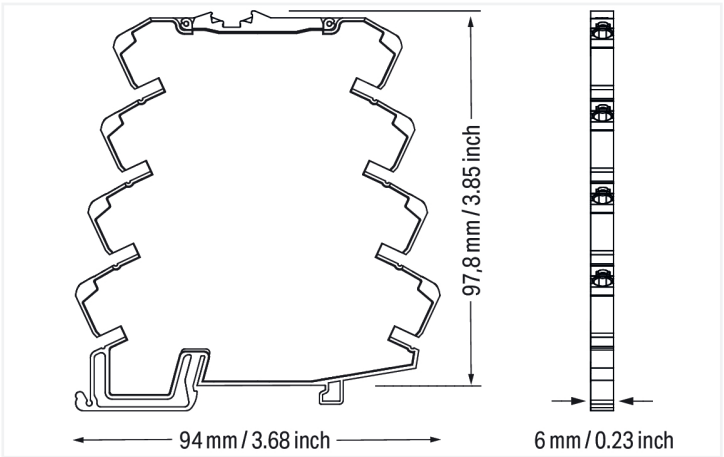
DIP Switch S1

Input Signal	Measurement Method	Filter	Output Signal
1	2	3	4 5 6
5 A	Mean square value	off	0 ... 20 mA
• 1 A	Arithmetic mean value	• active	• 4 ... 20 mA

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).

DIP Switch S1

Measurement Range Underflow	Measurement Range Overflow	Overcurrent (Input Signal – End Value + 20%)	Digit Output DO Signaling
7 8	9 10	9 10	9 10
Lower limit of measurement range –5 %*	Upper limit of measurement range +2.5 %*	Upper limit of measurement range +5 %*	DO not active
• Lower limit of measurement range	Upper limit of measurement range +2.5 %	Upper limit of measurement range +5 %	• DO U _s switching
• Lower limit of measurement range	Upper limit of measurement range	Lower limit of measurement range	• DO GND switching
• Lower limit of measurement range	Upper limit of measurement range	Upper limit of measurement range	*acc. to NAMUR NE 43



Short description:

This current signal conditioner measures both 0–1 A and 0–5 A AC/DC currents, converting the input signal to an standard analog signal at the output.

Digital switching output (DO):

The digital switching output (DO) allows signaling of a message. Two switching behaviors can be selected for the edge:

GND switching: For all values below the lower threshold or above the upper threshold, the digital output switches to "GND."

U_s switching: For all values below the lower threshold or above the upper threshold, the digital output (DO) matches the supply voltage level.

The preset switching thresholds are 0% and 100% of the input measurement range. These thresholds can be adjusted via the PC configuration interface. The switching threshold hysteresis is 5 mA.

Features:

- PC configuration interface
- True RMS measurement or arithmetic mean value
- Digital switching output (configurable switching thresholds)
- Switchable filter function
- Calibrated measurement range switching
- 3-way electrical isolation with 2.5 kV test voltage
- Extremely fast response times
- Measurement range overflow indication



Notes	
Safety Information	Input and output must be safely isolated from any hazardous live parts!
Note	Additional setting options via the WAGO Interface Configuration Software
Use shielded signal cables! Only use shielded signal cables for analog output signals. This ensures the device maintains its specified accuracy and immunity to interference, even when external disturbances affect the signal cable.	

Technical data			
Configuration		Input	
Configuration options	DIP switch WAGO Interface Configuration Software	Input signal type	Current
		Input signal (current)	0 ... 1 A AC/DC (IN 1) 0 ... 5 A AC/DC (IN 2)
		Frequency range	16 ... 400 Hz
		Input resistance (current input)	47 mΩ (IN 1) 10 mΩ (IN 2)
		Input current (max.)	10 A (IN 1; 5 s); 15 A (IN 2; 5 s)
		Response threshold	2 mA (IN 1); 4 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	Continuous current (DO) max.	100 mA (no internal restriction)
Output signal (current)	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	Number of switching thresholds (DO)	1 (adjustable)
Load impedance (voltage output)	≥ 2 kΩ (Temperature range restrictions may occur.)		
Load impedance (current output)	≤ 600 Ω Temperature range restrictions may occur.		
Signal processing		Measurement error	
Measurement method	True RMS measurement; Arithmetic mean value	Transmission error (typ.)	≤ 0.1 % of upper-range value
Software filter (adjustable)	Moving average value (filter level: 30)	Transmission error (max.)	≤ 0.4 % of upper-range value
Step response (typ.)	60 ms	Temperature coefficient	≤ 0.01 %/K
Power supply			
Power supply type	24 VDC (SELV)		
Nominal supply voltage U _S	24 VDC		
Supply voltage range	±30 %		
Current consumption at nominal supply voltage	≤ 40 mA (+ I _{DO})		



Safety and protection

Protection type	IP20	Test voltage	
		Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min

Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)

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	0.418 MJ
Weight	64 g

Environmental requirements	
Ambient temperature (operation)	-25 ... +70 °C (At nominal current, in individual arrangement; -25 ... +60 °C (block arrangement))
Ambient temperature (storage)	-40 ... +85 °C
Processing temperature	-25 ... +50 °C
Temperature range of connection cable	≥ (T _{ambient} + 15 K)
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
EMC emission of interference	EN 61000-6-4
Standards/specifications	EN 50121-3-2 DNV EN 61010-2-201

Commercial data	
Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4050821226734
Customs tariff number	85437090300

Product classification	
UNSPSC	41113630
eCl@ss 10.0	27-21-01-23
eCl@ss 9.0	27-21-01-23
ETIM 9.0	EC002475
ETIM 8.0	EC002475
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
CAS-No.	1303-86-2 1317-36-8 7439-92-1 75980-60-8 79-94-7 80-05-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol 4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide 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)	50f64a02-d6d3-4adb-a7b9-f815da2344ad
SCIP notification number (Belgium)	0e04df68-4c33-4c78-ade6-82bf60716e8f
SCIP notification number (Bulgaria)	d1dc9f2a-4544-48c8-8c42-717ec18dc517
SCIP notification number (Czech Republic)	1a2ce406-9928-4d64-aeb5-27a0e58a61ff
SCIP notification number (Denmark)	4e1a4190-497b-4457-98c6-445a2a2407aa
SCIP notification number (Finland)	10e56fdb-95fd-4317-8b19-0eec048887fc
SCIP notification number (France)	0152e5b3-4bb3-407b-962c-95da92c8f591
SCIP notification number (Germany)	7d05eaec-2f49-4372-825c-639900cb0cfa
SCIP notification number (Hungary)	8a6d556b-a2a5-47d7-be2c-0f7f08b455aa
SCIP notification number (Italy)	80363ecc-0750-47b3-8adc-6d8d376cb109
SCIP notification number (Netherlands)	4c0930d7-0757-44b2-a2ac-a852f21c8101
SCIP notification number (Poland)	e163f598-e916-448a-8e77-616fb920165c
SCIP notification number (Romania)	c1c27efe-e372-4fb2-b5a4-5eac757ec01f
SCIP notification number (Sweden)	6a471be4-9d63-4d9d-9da5-8ddf090e997c



Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.4

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications



Approval	Standard	Certificate Name
BV Bureau Veritas S.A.	Rules for class. of Steel Ships	40179_B0
DNV DNV Germany GmbH	DNV-CG-0339,Aug.2021	TAA00001D1

Approvals for hazardous areas



Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV14ATEX112692X (II 3G Ex ec IIC T4 Gc)
CCC CNEX	CNCA-C23-01	2020312310000210 (Ex ec IIC T4 Gc)
IECEx TUEV Nord Cert GmbH	-	IECEX TUN14.0030X
UKEx WAGO GmbH & Co. KG	EN 60079-0	WAGO22UKEX004X
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	ANSI/ISA 12.12.01	E198726




Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 857-550

Documentation

Manual
WAGO Current and Voltage Signal Conditioners and Power Measurement Modules

Bid Text			
857-550	15.07.2019	xml 7.34 KB	
857-550	15.07.2019	docx 18.83 KB	
857-550	15.07.2019	pdf 77.51 KB	



Instruction Leaflet			
CCC Ex (Additional information)	26.04.2023	pdf 140.99 KB	↓
Messumformer und Trennverstärker	V 2.0.0 14.06.2023	pdf 2204.91 KB	↓


CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 857-550	EPLAN Data Portal 857-550
↓	↓
	WSCAD Universe 857-550
	↓
	ZUKEN Portal 857-550
	↓

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



1.1.3.1 Plug-in current transformer



Item No.: 855-505/600-1001
Plug-in current transformer; Primary rated current: 600 A; Secondary rated current: 5 A; Rated power: 10 VA; Accuracy class: 1



Item No.: 855-2701/064-001
Plug-in current transformer; Primary rated current: 64 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 1



Item No.: 855-301/075-201
Plug-in current transformer; Primary rated current: 75 A; Secondary rated current: 1 A; Rated power: 2.5 VA; Accuracy class: 1



Item No.: 855-305/075-201
Plug-in current transformer; Primary rated current: 75 A; Secondary rated current: 5 A; Rated power: 2.5 VA; Accuracy class: 1



Item No.: 855-501/800-1001
Plug-in current transformer; Primary rated current: 800 A; Secondary rated current: 1 A; Rated power: 10 VA; Accuracy class: 1



Item No.: 855-505/800-1001
Plug-in current transformer; Primary rated current: 800 A; Secondary rated current: 5 A; Rated power: 10 VA; Accuracy class: 1

1.1.3.2 Split-core current transformer



Item No.: 855-4001/100-001
Split-core current transformer; Primary rated current: 100 A; Secondary rated current: 5 A; Rated power: 0.2 VA; Accuracy class: 1; Cable length: 3 m



Item No.: 855-3001/100-003
Split-core current transformer; Primary rated current: 100 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 3; Cable length: 3 m



Item No.: 855-5001/1000-000
Split-core current transformer; Primary rated current: 1000 A; Secondary rated current: 1 A; Rated power: 0.5 VA; Accuracy class: 0.5; Cable length: 5 m



Item No.: 855-5101/1000-000
Split-core current transformer; Primary rated current: 1000 A; Secondary rated current: 5 A; Rated power: 1 VA; Accuracy class: 0.5; Cable length: 5 m



Item No.: 855-5005/1000-000
Split-core current transformer; Primary rated current: 1000 A; Secondary rated current: 5 A; Rated power: 0.5 VA; Accuracy class: 0.5; Cable length: 3 m



Item No.: 855-5105/1000-000
Split-core current transformer; Primary rated current: 1000 A; Secondary rated current: 1 A; Rated power: 0.5 VA; Accuracy class: 0.5; Cable length: 3 m



Item No.: 855-4001/150-001
Split-core current transformer; Primary rated current: 150 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 1; Cable length: 3 m



Item No.: 855-4005/150-101
Split-core current transformer; Primary rated current: 150 A; Secondary rated current: 5 A; Rated power: 1 VA; Accuracy class: 1; Cable length: 0.5 m



Item No.: 855-4001/200-001
Split-core current transformer; Primary rated current: 200 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 0.5; Cable length: 3 m



Item No.: 855-3001/200-001
Split-core current transformer; Primary rated current: 200 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 1; Cable length: 3 m



Item No.: 855-4101/200-001
Split-core current transformer; Primary rated current: 200 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 1; Cable length: 3 m



Item No.: 855-3001/250-001
Split-core current transformer; Primary rated current: 250 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 1; Cable length: 3 m



Item No.: 855-4101/250-001
Split-core current transformer; Primary rated current: 250 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 1; Cable length: 3 m



Item No.: 855-5001/250-001
Split-core current transformer; Primary rated current: 250 A; Secondary rated current: 1 A; Rated power: 0.5 VA; Accuracy class: 1; Cable length: 5 m



Item No.: 855-4105/250-101
Split-core current transformer; Primary rated current: 250 A; Secondary rated current: 5 A; Rated power: 1 VA; Accuracy class: 1; Cable length: 0.5 m



Item No.: 855-4101/400-001
Split-core current transformer; Primary rated current: 400 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 1; Cable length: 3 m



Item No.: 855-5001/400-000
Split-core current transformer; Primary rated current: 400 A; Secondary rated current: 1 A; Rated power: 0.5 VA; Accuracy class: 0.5; Cable length: 5 m



Item No.: 855-5005/400-001
Split-core current transformer; Primary rated current: 400 A; Secondary rated current: 5 A; Rated power: 0.5 VA; Accuracy class: 1; Cable length: 3 m



Item No.: 855-4105/400-101
Split-core current transformer; Primary rated current: 400 A; Secondary rated current: 5 A; Rated power: 1 VA; Accuracy class: 1; Cable length: 0.5 m



Item No.: 855-3001/060-003
Split-core current transformer; Primary rated current: 60 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 3; Cable length: 3 m



Item No.: 855-5001/600-000
Split-core current transformer; Primary rated current: 600 A; Secondary rated current: 1 A; Rated power: 0.5 VA; Accuracy class: 0.5; Cable length: 5 m



Item No.: 855-5005/600-000
Split-core current transformer; Primary rated current: 600 A; Secondary rated current: 5 A; Rated power: 0.5 VA; Accuracy class: 0.5; Cable length: 3 m



1.1.4 Interface module

1.1.4.1 Interface adapters



[Item No.: 857-980](#)
Interface adapter; 16-pole; analog

1.1.5 Jumper

1.1.5.1 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



[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



1.1.6 Marking

1.1.6.1 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

1.1.6.2 Marking strip



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

1.1.7 Potential distribution

1.1.7.1 Current and voltage tap



Item No.: 855-1851/350-000
Current and voltage tap up to 185 mm²; Primary rated current: 350 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 0.5; fused



Item No.: 855-501/150-000
Current and voltage tap up to 50 mm²; Primary rated current: 150 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 0.5; fused



Item No.: 855-951/250-000
Current and voltage tap up to 95 mm²; Primary rated current: 250 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 0.5; fused

1.1.8 Power supply

1.1.8.1 Power Supply



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



1.1.9 Relay module

1.1.9.1 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; gray

1.1.10 Screwless end stop

1.1.10.1 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

1.1.11 Terminal blocks

1.1.11.1 Supply module



Item No.: 857-979
Supply and through module

1.1.11.2 Through terminal block



Item No.: 857-979
Supply and through module

1.1.12 Tool

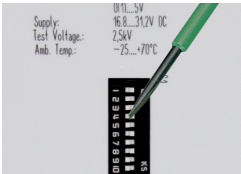
1.1.12.1 Operating tool



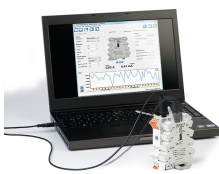
Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Installation Notes

Configuring

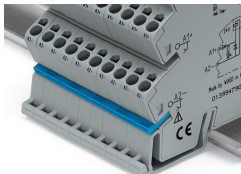


Configuration via DIP switch



Configuration via WAGO Interface Configuration Software

Commoning



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