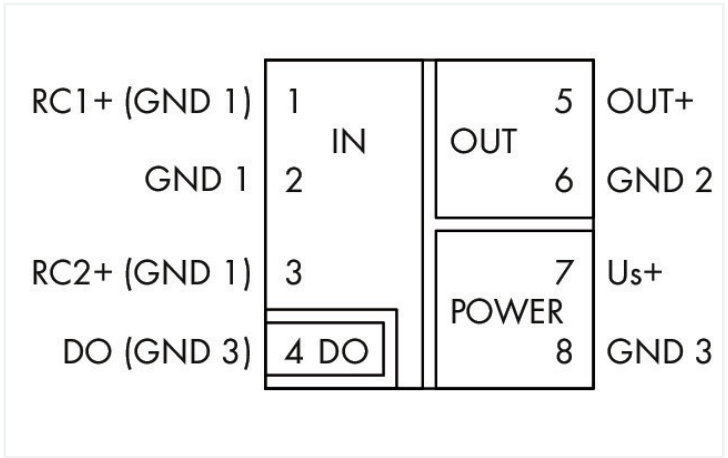


Data Sheet | Item Number: 857-552

Current signal conditioner; Input for Rogowski coils; 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/857-552>



857-552
DIP Switch Adjustability

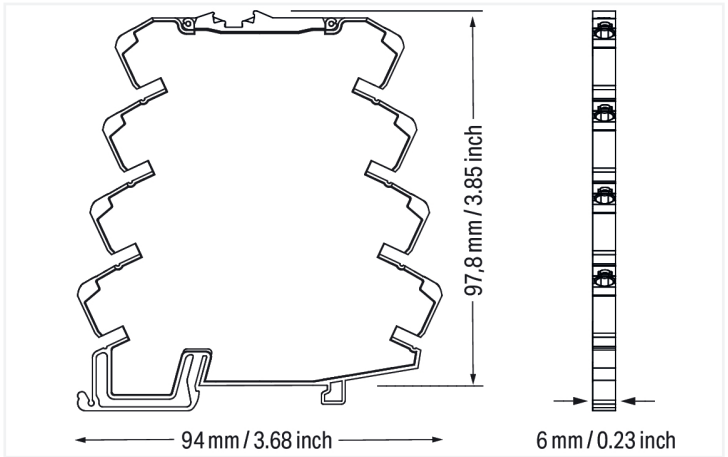
DIP Switch S1

Input Signal	RC Configuration Input	Filter	Output Signal
1	2	3	4 5 6
RC1 = RT500 from LEM	RC2A = RT2000 from LEM	off	0 ... 20 mA
• RC2	• RC2B = 22.5 mV/A	• active	• 4 ... 20 mA
			• 0 ... 10 V
			• 2 ... 10 V
			• 0 ... 10 mA
			• 2 ... 10 mA
			• 0 ... 5 V
			• 1 ... 5 V

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

7 8	Measurement Range Underflow	Measurement Range Overflow	Overcurrent (Input Signal = End Value + 20%)	9 10	Digital Output DO Signaling
•	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	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 Rogowski signal conditioner records RMS values from alternating currents via Rogowski coil, converting the input signal into an standard analog signal on the output side.

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
- Supports different Rogowski coil types
- Digital switching output (configurable switching thresholds)
- Configurable output signal
- Configuration via DIP switch
- 3-way electrical isolation with 2.5 kV test voltage
- No current bar interruption during installation
- 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

Technical data

Configuration		Input	
Configuration options	DIP switch WAGO Interface Configuration Software	Input signal type	Voltage
		Input signal (voltage)	50 Hz sinusoidal signals: 10.05 mVAC (RC1); 40.2 mVAC (RC2A); 90 mVAC (RC2B)
		Sensitivity	RC2B: 22.5 mV/kA
		Measurement range (current)	AC 500 A (RC1); AC 2000 A (RC2A); AC 4000 A (RC2B)
		Frequency range	50 Hz (Sinusoidal signals)
		Response threshold	≤ 1 % (of measurement range nominal value)
		Resolution (current)	250 mA (RC1) 1 A (RC2A) 1.5 A (RC2B)

Output (analog)	
Output signal type	Current Voltage
Output signal (voltage)	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V
Output signal (current)	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA
Load impedance (voltage output)	≥ 1 kΩ
Load impedance (current output)	≤ 600 Ω

Output (digital)	
Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 (adjustable)

Signal processing	
Limit frequency	2 kHz
Software filter (adjustable)	Moving average value (filter level: 30)
Step response (typ.)	60 ms

Measurement error	
Transmission error (max.)	≤ 1 % (of the full scale value)
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 _{bo})

Safety and protection		Test voltage	
Protection type	IP20	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	35.1 g

Environmental requirements	
Ambient temperature (operation)	-25 ... +70 °C (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
Standards/specifications	EN 61010-2-201

Commercial data	
Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4050821476917
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)	1f195258-d879-4341-9432-55132a5988a4
SCIP notification number (Belgium)	7814c94f-657c-4f03-83f0-8d7593e6728c
SCIP notification number (Bulgaria)	018c696b-7940-4720-a5c3-00dd668a954d
SCIP notification number (Czech Republic)	004a50ca-f1d7-4851-9876-6e3e26a6990e
SCIP notification number (Denmark)	a59197af-a118-401f-819c-6449ecf2a26d
SCIP notification number (Finland)	6287e118-0731-40fa-98e2-c8475af11b0f
SCIP notification number (France)	467a5cc3-0b72-4f42-ace2-e6489a6326ca
SCIP notification number (Germany)	a302d4fa-40b9-4b69-b303-d88a5794f8c0
SCIP notification number (Hungary)	136cc465-5e70-4b47-92a5-43b7d1ccd0a3
SCIP notification number (Italy)	f54581b5-8ed8-406f-9e56-d34282f11849
SCIP notification number (Netherlands)	916f0ff9-e787-458a-afa0-12ec5dba73b4
SCIP notification number (Poland)	862d360a-3d4e-4510-9319-09ac80339012
SCIP notification number (Romania)	26692719-0992-4210-bc52-9edf89ce1c3d
SCIP notification number (Sweden)	5a508da9-fb93-492b-aa4a-14900ec6a865

Approvals / Certificates		
General approvals		Approvals for hazardous areas
Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
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



Downloads	
Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 857-552	↓

Documentation			
Manual		Bid Text	
WAGO Current and Voltage Signal Conditioners and Power Measurement Modules	↓	857-552	15.07.2019xml7.28 KB↓
		857-552	15.07.2019docx20.09 KB↓
		857-552	15.07.2019pdf76.68 KB↓

Instruction Leaflet			
CCC Ex (Additional information)	26.04.2023	pdf140.99 KB	↓
Rogowski-Mesumformer	V 2.0.0 14.06.2023	pdf1914.30 KB	↓

CAD/CAE-Data	
CAD data	
2D/3D Models 857-552	↓
CAE data	
EPLAN Data Portal 857-552	↓
WSCAD Universe 857-552	↓
ZUKEN Portal 857-552	↓

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 Current transformer

1.1.3.1 Rogowski coil



[Item No.: 855-9450/2000-1251](#)
Rogowski coil; Primary rated current 1000 A; Output signal 22.5 mV per kA; Cable length 4.5 m; Feedthrough for measurement conductor 125 mm



[Item No.: 855-9450/2000-1751](#)
Rogowski coil; Primary rated current 1000 A; Output signal 22.5 mV per kA; Cable length 4.5 m; Feedthrough for measurement conductor 175 mm



[Item No.: 855-9450/2000-701](#)
Rogowski coil; Primary rated current 1000 A; Output signal 22.5 mV per kA; Cable length 4.5 m; Feedthrough for measurement conductor 70 mm



[Item No.: 855-9150/2000-1251](#)
Rogowski coil; Primary rated current 1000 A; Output signal 22.5 mV per kA; Cable length: 1.5 m; Feedthrough for measurement conductor 125 mm



[Item No.: 855-9150/2000-1751](#)
Rogowski coil; Primary rated current 1000 A; Output signal 22.5 mV per kA; Cable length: 1.5 m; Feedthrough for measurement conductor 175 mm



[Item No.: 855-9150/2000-701](#)
Rogowski coil; Primary rated current 1000 A; Output signal 22.5 mV per kA; Cable length: 1.5 m; Feedthrough for measurement conductor 70 mm

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



1.1.5.1 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

1.1.6 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 Power supply

1.1.7.1 Power Supply



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

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

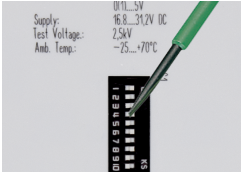
1.1.11.1 Operating tool



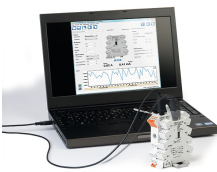
Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Installation Notes

Configuring

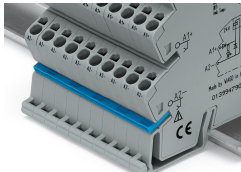


Configuration via DIP switch



Configuration via WAGO Interface Configuration Software

Commoning



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