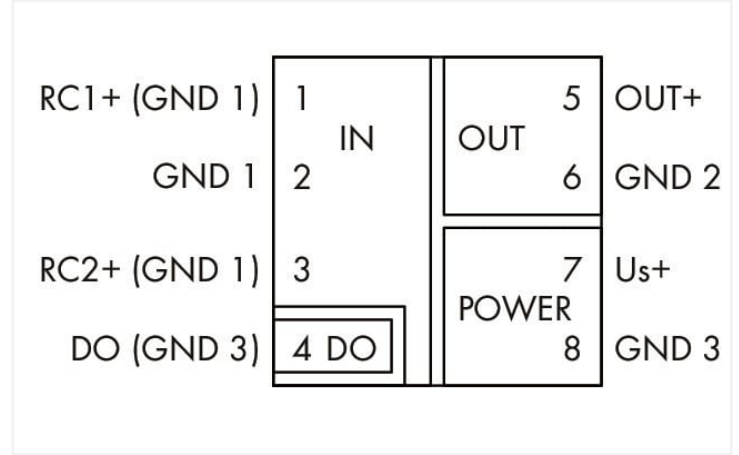


# Data Sheet | Item Number: 857-552

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 mm<sup>2</sup>



<https://www.wago.com/857-552>



857-552  
DIP Switch Adjustability

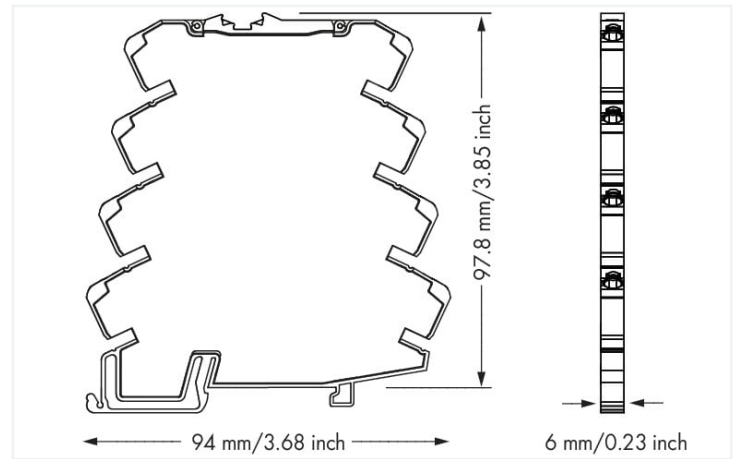
DIP Switch S1

| Input Signal         | RC Configuration Input | Filter   | Output Signal |             |
|----------------------|------------------------|----------|---------------|-------------|
| 1                    | 2                      | 3        | 4             | 5           |
| RC1 = RT500 from LEM | RC2A = RT2000 from LEM | off      | 0 ... 20 mA   | 4 ... 20 mA |
| • RC2                | • RC2B = 22.5 mV/A     | • active | 0 ... 10 V    | 0 ... 10 mA |
|                      |                        |          | 2 ... 10 V    | 2 ... 10 mA |
|                      |                        |          | 0 ... 10 mA   | 0 ... 5 V   |
|                      |                        |          | 2 ... 10 mA   | 1 ... 5 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 +2.5 %  | Upper limit of measurement range +5 %        | • | •  | DO U <sub>+</sub> 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        |



Dimensions in mm

## Short description:

WAGO's Rogowski signal conditioner records RMS values from alternating currents via Rogowski coil, converting the input signal into a standard analog signal on the output side. **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 WAGO Interface Configuration Software or WAGO Interface Configuration App

## Technical data

## Configuration

|                       |   |
|-----------------------|---|
| Configuration options | DIP switch<br>WAGO Interface Configuration Software<br>WAGO Interface Configuration App |
|-----------------------|---|

## Input

|                             |   |
|-----------------------------|---|
| Input signal type           | Voltage   |
| Input signal (voltage)      | 50 Hz sinusoidal signals: AC 10.05 mV (RC1); AC 40.2 mV (RC2A); AC 90 mV (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)<br>1 A (RC2A)<br>1.5 A (RC2B)                                      |

## Output (analog)

|                                 |  |
|---------------------------------|--|
| Output signal type              | Current<br>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 $U_s$                  | DC 24 V               |
| Supply voltage range                          | ±30 %                 |
| Current consumption at nominal supply voltage | ≤ 40 mA (+ $I_{D0}$ ) |

## Safety and protection

|                 |      |
|-----------------|------|
| Protection type | IP20 |
|-----------------|------|

## Test voltage

|                                    |                         |
|------------------------------------|-------------------------|
| Test voltage (input/output/supply) | AC 2.5 kV; 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 mm <sup>2</sup> / 28 ... 14 AWG |
| Fine-stranded conductor | 0.34 ... 2.5 mm <sup>2</sup> / 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 <sub>ambient</sub> + 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) |
| eCl@ss 10.0           | 27-21-01-23              |
| eCl@ss 9.0            | 27-21-01-23              |
| ETIM 9.0              | EC002475                 |
| ETIM 8.0              | EC002475                 |
| PU (SPU)              | 1 pcs                    |
| Packaging type        | Bag                      |
| Country of origin     | DE                       |
| GTIN                  | 4050821476917            |
| Customs tariff number | 85437090300              |

**Environmental Product Compliance**

|   |  |
|---|--|
| CAS-No.                                   | 1303-86-2<br>1317-36-8<br>7439-92-1<br>75980-60-8<br>79-94-7<br>80-05-7  |
| REACH Candidate List Substance            | Lead monoxide<br>Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-<br>2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol<br>4,4'-isopropylidenediphenol<br>Diboron trioxide<br>Lead |
| RoHS Compliance Status                    | Compliant,With Exemption   |
| RoHS Exemption                            | 6(c)<br>7(a)<br>7(c)-I<br>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<br>GZO Almaty Standart | TP TC 020/2011 | EAC CoC 03081    |

| Approval                     | Standard    | Certificate Name                          |
|------------------------------|-------------|---|
| ATEX<br>TUEV Nord Cert GmbH  | EN 60079-0  | TUEV14ATEX112692X (II 3G Ex ec IIC T4 Gc) |
| CCC<br>CNEX                  | CNCA-C23-01 | 2020312310000210 (Ex ec IIC T4 Gc)        |
| IECEx<br>TUEV Nord Cert GmbH | -           | IECEx TUN14.0030X                         |
| UKEx<br>WAGO GmbH & Co. KG   | EN 60079-0  | WAGO22UKEX004X                            |

## Downloads

### Environmental Product Compliance

| Compliance Search                        |                   |
|--|-------------------|
| Environmental Product Compliance 857-552 | <a href="#">↓</a> |

## Documentation

| Manual   |                   |
|--|-------------------|
| WAGO Current and Voltage Signal Conditioners and Power Measurement Modules | <a href="#">↓</a> |

| Bid Text |            |      |          |                   |
|----------|------------|------|----------|-------------------|
| 857-552  | 15.07.2019 | xml  | 7.28 KB  | <a href="#">↓</a> |
| 857-552  | 15.07.2019 | docx | 20.09 KB | <a href="#">↓</a> |
| 857-552  | 15.07.2019 | pdf  | 76.68 KB | <a href="#">↓</a> |

| Instruction Leaflet             |                       |     |            |                   |
|---------------------------------|-----------------------|-----|------------|-------------------|
| CCC Ex (Additional information) | 26.04.2023            | pdf | 140.99 KB  | <a href="#">↓</a> |
| Rogowski-Messumformer           | V 2.0.0<br>14.06.2023 | pdf | 1914.30 KB | <a href="#">↓</a> |

## CAD/CAE-Data

| CAD data             |                   |
|----------------------|-------------------|
| 2D/3D Models 857-552 | <a href="#">↓</a> |

| CAE data                  |                   |
|---------------------------|-------------------|
| EPLAN Data Portal 857-552 | <a href="#">↓</a> |
| WSCAD Universe 857-552    | <a href="#">↓</a> |
| ZUKEN Portal 857-552      | <a href="#">↓</a> |

## 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

|   |   |   |  |
|---|---|---|--|
|  <p><b>Item No.: 859-403/000-029</b><br/>Jumper; for jumper slot; 3-way; insulated; yellow</p>   |  <p><b>Item No.: 859-404/000-006</b><br/>Jumper; for jumper slot; 4-way; insulated; blue</p> |  <p><b>Item No.: 859-404</b><br/>Jumper; for jumper slot; 4-way; insulated; light gray</p> |  <p><b>Item No.: 859-404/000-005</b><br/>Jumper; for jumper slot; 4-way; insulated; red</p> |
|  <p><b>Item No.: 859-404/000-029</b><br/>Jumper; for jumper slot; 4-way; insulated; yellow</p>   |  <p><b>Item No.: 859-405/000-006</b><br/>Jumper; for jumper slot; 5-way; insulated; blue</p> |  <p><b>Item No.: 859-405</b><br/>Jumper; for jumper slot; 5-way; insulated; light gray</p> |  <p><b>Item No.: 859-405/000-005</b><br/>Jumper; for jumper slot; 5-way; insulated; red</p> |
|  <p><b>Item No.: 859-405/000-029</b><br/>Jumper; for jumper slot; 5-way; insulated; yellow</p>   |  <p><b>Item No.: 859-406/000-006</b><br/>Jumper; for jumper slot; 6-way; insulated; blue</p> |  <p><b>Item No.: 859-406</b><br/>Jumper; for jumper slot; 6-way; insulated; light gray</p> |  <p><b>Item No.: 859-406/000-005</b><br/>Jumper; for jumper slot; 6-way; insulated; red</p> |
|  <p><b>Item No.: 859-406/000-029</b><br/>Jumper; for jumper slot; 6-way; insulated; yellow</p>   |  <p><b>Item No.: 859-407/000-006</b><br/>Jumper; for jumper slot; 7-way; insulated; blue</p> |  <p><b>Item No.: 859-407</b><br/>Jumper; for jumper slot; 7-way; insulated; light gray</p> |  <p><b>Item No.: 859-407/000-005</b><br/>Jumper; for jumper slot; 7-way; insulated; red</p> |
|  <p><b>Item No.: 859-407/000-029</b><br/>Jumper; for jumper slot; 7-way; insulated; yellow</p>   |  <p><b>Item No.: 859-408/000-006</b><br/>Jumper; for jumper slot; 8-way; insulated; blue</p> |  <p><b>Item No.: 859-408</b><br/>Jumper; for jumper slot; 8-way; insulated; light gray</p> |  <p><b>Item No.: 859-408/000-005</b><br/>Jumper; for jumper slot; 8-way; insulated; red</p> |
|  <p><b>Item No.: 859-408/000-029</b><br/>Jumper; for jumper slot; 8-way; insulated; yellow</p>   |  <p><b>Item No.: 859-409/000-006</b><br/>Jumper; for jumper slot; 9-way; insulated; blue</p> |  <p><b>Item No.: 859-409</b><br/>Jumper; for jumper slot; 9-way; insulated; light gray</p> |  <p><b>Item No.: 859-409/000-005</b><br/>Jumper; for jumper slot; 9-way; insulated; red</p> |
|  <p><b>Item No.: 859-409/000-029</b><br/>Jumper; for jumper slot; 9-way; insulated; yellow</p> |   |   |  |

1.1.6 Marking

1.1.6.1 Marker

|  |  |   |  |
|--|--|---|--|
|  <p><b>Item No.: 793-5501</b><br/>WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white</p> |  <p><b>Item No.: 793-502</b><br/>WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white</p>  |  <p><b>Item No.: 793-566</b><br/>WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type; white</p>   |  <p><b>Item No.: 793-503</b><br/>WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white</p> |
|  <p><b>Item No.: 793-504</b><br/>WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white</p>         |  <p><b>Item No.: 793-505</b><br/>WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; white</p> |  <p><b>Item No.: 793-506</b><br/>WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white</p> |  <p><b>Item No.: 793-501</b><br/>WMB marking card; as card; not stretchable; plain; snap-on type; white</p>                                       |
|  <p><b>Item No.: 2009-115</b><br/>WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white</p>              |  |   |  |

### 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 continuous current: 6 A; Yellow status indicator; 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

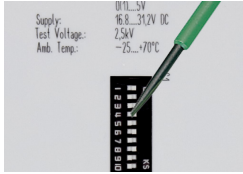


**Item No.: 210-720**

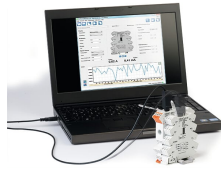
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

## Installation Notes

### Configuring



Configuration via DIP switch

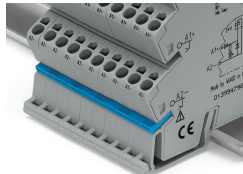


Configuration via WAGO Interface Configuration Software



Configuration via WAGO Interface Configuration App

### Commoning



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