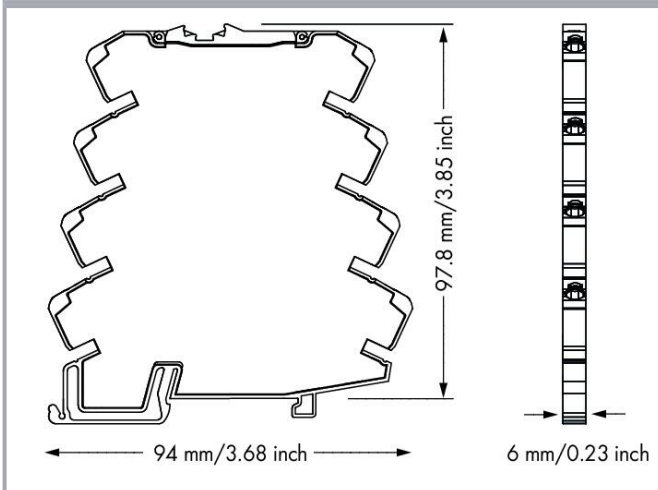
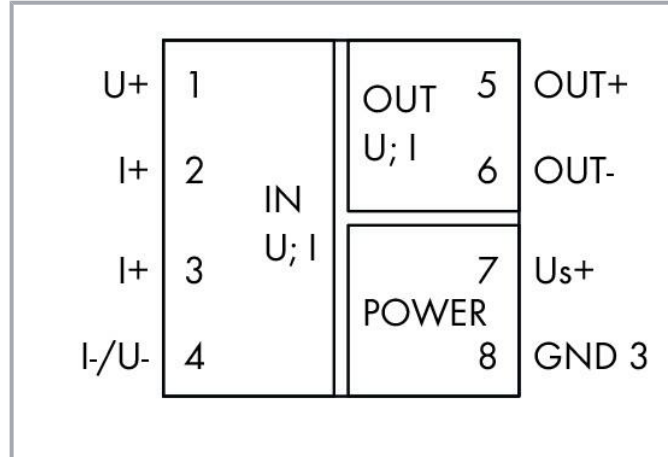
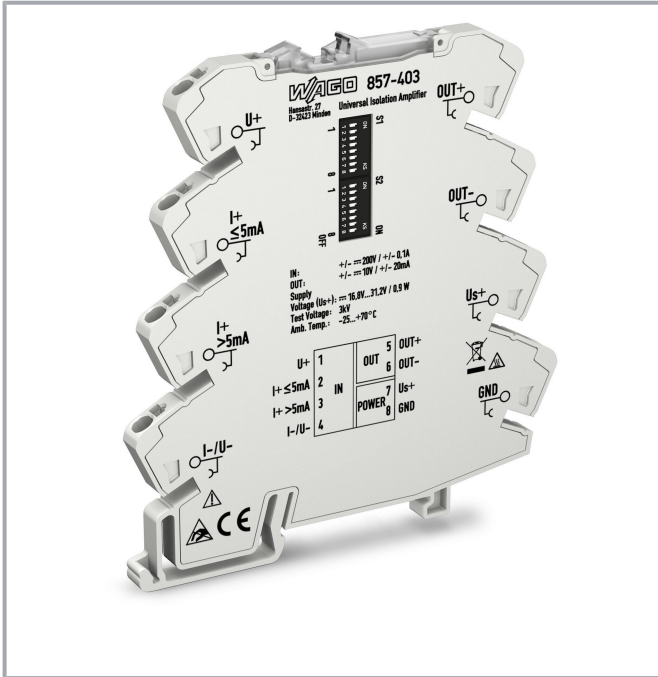


**Data sheet | Item number: 857-403**

Isolation amplifier; Current and voltage input signal; Bipolar current and voltage output signal; Configuration via DIP switch; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm<sup>2</sup>



[www.wago.com/857-403](http://www.wago.com/857-403)



DIP Switch Adjustability

DIP Switch S1							DIP Switch S1								
Input Signal Ranges						Reserve	Max. Operating Frequency		Input Signal Ranges						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Default setting*							5kHz	0 ... 0.3 mA							
• ±60 mV							• 100 Hz	±0.3 mA							
• ±100 mV								0 ... 1 mA							
• ±100 mV								±1 mA							
• 0 ... 150 mV								0 ... 5 mA							
• ±150 mV								±5 mA							
• 0 ... 300 mV								0 ... 10 mA							
• ±300 mV								±10 mA							
• 0 ... 500 mV								0 ... 20 mA							
• ±500 mV								±20 mA							
• 0 ... 1 V								0 ... 50 mA							
• ±1 V								±50 mA							
• 0 ... 5 V								0 ... 100 mA							
• ±5 V								±100 mA							
• 0 ... 10 V								1 ... 5 V							
• ±10 V								2 ... 10 V							
• 0 ... 50 V								2 ... 10 V							
• ±50 V								4 ... 20 mA							
• 0 ... 100 V															
• ±100 V															
• 0 ... 200 V															
• ±200 V															

DIP Switch S2							
Output Signal Ranges					Reserve	Clipping	
1	2	3	4	5	6	7	
Default setting*						inactive	
• 0 ... 10 V						• limiting response	
• ±10 V						• active	
• 2 ... 10 V						• (limiting response)	
• 0 ... 5 V							
• ±5 V							
• 1 ... 5 V							
• 0 ... 20 mA							
• ±20 mA							
• 4 ... 20 mA							
• 0 ... 10 mA							
• ±10 mA							
• 2 ... 10 mA							

More information on measurement range setting is available in 857-402 instruction leaflet.  
\*The input and output range DIP switches must be readjusted when changing the default setting.

Subject to changes. Please also observe the further product documentation!

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 We are always happy to take your call at +49 (571) 887-44222.



## Item description

### Short description:

WAGO's signal conditioner converts standard unipolar/bipolar signals, as well as amplifies, filters and electrically isolates standard analog signals.

### Features:

- Overload protection of current input via resettable fuse
- Calibrated measurement range switching for all 456 signals
- Unipolar/bipolar standard analog signals at both input/output
- Switchable limit frequency
- Clipping capability for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

## Data

### Notes

Note	<p><b>Use shielded signal lines!</b></p> <p>Only use shielded signal lines for analog input and output signals. Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.</p>
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## Technical data

### Configuration

Configuration options	DIP switch
-----------------------	------------

### Input

Input signal type	Voltage (DC) Current (DC) Voltage Current
Input signal (voltage)	±60 mV; 0 ... 60 mV; ±100 mV; 0 ... 100 mV; ±150 mV; 0 ... 150 mV; ±300 mV; 0 ... 300 mV; ±500 mV; 0 ... 500 mV; ±1 V; 0 ... 1 V; ±5 V; 0 ... 5 V; 1 ... 5 V; ±10 V; 0 ... 10 V; 2 ... 10 V; ±100 V; 0 ... 100 V; ±200 V; 0 ... 200 V
Input signal (current)	±0.3 mA; 0 ... 0.3 mA; ±1 mA; 0 ... 1 mA; ±5 mA; 0 ... 5 mA; ±10 mA; 0 ... 10 mA; 2 ... 10 mA; ±20 mA; 0 ... 20 mA; 4 ... 20 mA; ±50 mA; 0 ... 50 mA; ±100 mA; 0 ... 100 mA
Input resistance (current input)	10 Ω (≥ 5 mA); 100 Ω (≤ 5 mA)

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Input resistance (voltage input)	1 M $\Omega$
----------------------------------	--------------

### Output (analog)

Output signal type	Current Voltage
Output signal (voltage)	$\pm 5$ V; 0 ... 5 V; 1 ... 5 V; $\pm 10$ V; 0 ... 10 V; 2 ... 10 V
Output signal (current)	$\pm 10$ mA; 0 ... 10 mA; 2 ... 10 mA; $\pm 20$ mA; 0 ... 20 mA; 4 ... 20 mA
Load impedance (voltage output)	$\geq 2$ k $\Omega$
Load impedance (current output)	$\leq 600$ $\Omega$

### Signal Processing

Limit frequency	100 Hz / 5 kHz (configurable via DIP switch)
Step response (typ.)	3.5 ms (100 Hz); 100 $\mu$ s (5 kHz)

### Measurement Error

Transmission error (typ.)	$\leq 0.08$ % of upper-range value
Temperature coefficient	$\leq 0.01$ %/K

### Supply

Power supply type	24 VDC
Nominal supply voltage $U_S$	DC 24 V
Supply voltage range	$\pm 30$ %
Current consumption at nominal supply voltage	$\leq 40$ mA

### Safety and protection

Rated voltage	200 V
Overvoltage category	II
Pollution degree	2
Protection type	IP20

### Test voltage

Test voltage (input/output/supply)	AC 3 kV; 50 Hz; 1 min
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### Insulation parameters

Insulation type (input/supply and analog output/relay output)	Reinforced insulation (safe isolation)
---	--

Subject to changes. Please also observe the further product documentation!



Reinforced insulation  
Reinforced insulation

## 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
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## Material Data

Fire load	0.191 MJ
Weight	39.9 g

## Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
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 61010-1

## Commercial data

ETIM 8.0	EC002653
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ETIM 7.0	EC002653
PU (SPU)	1 pcs
Packaging type	bag
Country of origin	DE
GTIN	4055144057850
Customs tariff number	85437090300

## Environmental Product Compliance


RoHS Compliance Status	Compliant, No Exemption
------------------------	-------------------------

## Approvals / Certificates

### General approvals



Logo	Approval	Additional Approval Text	Certificate name
	EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC_Certificate_RU_C-DE.AM02.B.00115_19
	EAC Brjansker Zertifizierungsstelle	TP TC 004/2011	EAC RU C-DE.AM02.B.00122/19

### Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

## Optional accessories

### Mounting

Mounting accessories		
	<b>Item no.: 249-116</b> Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray	<a href="http://www.wago.com/249-116">www.wago.com/249-116</a>
	<b>Item no.: 249-117</b> Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray	<a href="http://www.wago.com/249-117">www.wago.com/249-117</a>

Subject to changes. Please also observe the further product documentation!



**Item no.: 249-197**  
Screwless end stop; 14 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

[www.wago.com/249-197](http://www.wago.com/249-197)

**Jumpers**

Jumper



**Item no.: 859-408**  
Jumper; for jumper slot; 8-way; insulated; light gray

[www.wago.com/859-408](http://www.wago.com/859-408)



**Item no.: 859-405**  
Jumper; for jumper slot; 5-way; insulated; light gray

[www.wago.com/859-405](http://www.wago.com/859-405)



**Item no.: 859-406**  
Jumper; for jumper slot; 6-way; insulated; light gray

[www.wago.com/859-406](http://www.wago.com/859-406)



**Item no.: 859-410**  
Jumper; for jumper slot; 10-way; insulated; light gray

[www.wago.com/859-410](http://www.wago.com/859-410)



**Item no.: 859-409**  
Jumper; for jumper slot; 9-way; insulated; light gray

[www.wago.com/859-409](http://www.wago.com/859-409)



**Item no.: 859-403**  
Jumper; for jumper slot; 3-way; insulated; light gray

[www.wago.com/859-403](http://www.wago.com/859-403)



**Item no.: 859-404**  
Jumper; for jumper slot; 4-way; insulated; light gray

[www.wago.com/859-404](http://www.wago.com/859-404)



**Item no.: 859-402**  
Jumper; for jumper slot; 2-way; insulated; light gray

[www.wago.com/859-402](http://www.wago.com/859-402)



**Item no.: 859-407**  
Jumper; for jumper slot; 7-way; insulated; light gray

[www.wago.com/859-407](http://www.wago.com/859-407)

**Power supplies**

Power supply unit



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

[www.wago.com/787-2852](http://www.wago.com/787-2852)

**Marking accessories**

Marker



**Item no.: 793-501**  
WMB marking card; as card; not stretchable; plain; snap-on type; white

[www.wago.com/793-501](http://www.wago.com/793-501)



**Item no.: 793-502**  
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white

[www.wago.com/793-502](http://www.wago.com/793-502)

**Item no.: 793-503**

Subject to changes. Please also observe the further product documentation!



WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; [www.wago.com/793-503](http://www.wago.com/793-503)  
white



**Item no.: 793-504**

WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; [www.wago.com/793-504](http://www.wago.com/793-504)  
white



**Item no.: 793-505**

WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; [www.wago.com/793-505](http://www.wago.com/793-505)  
white



**Item no.: 793-506**

WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; [www.wago.com/793-506](http://www.wago.com/793-506)  
white

**Tool**

Operating tool



**Item no.: 210-720**

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

[www.wago.com/210-720](http://www.wago.com/210-720)

**Downloads**

**Documentation**

**Instruction Leaflet**

Isolation amplifier; Current and voltage input signal	V 1.0.0	pdf	Download
Bipolar current and voltage output signal; Configuration via DIP switch	2021 Aug 4	2.4 MB	

**Environmental Product Compliance**

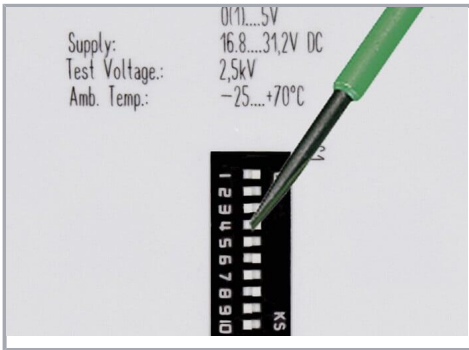
**Compliance Search**

Environmental Product Compliance 857-403	URL	Download
Isolation amplifier; Current and voltage input signal; Bipolar current and voltage output signal; Configuration via DIP switch; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm <sup>2</sup>		

**Installation Notes**

**Configuring**

Subject to changes. Please also observe the further product documentation!

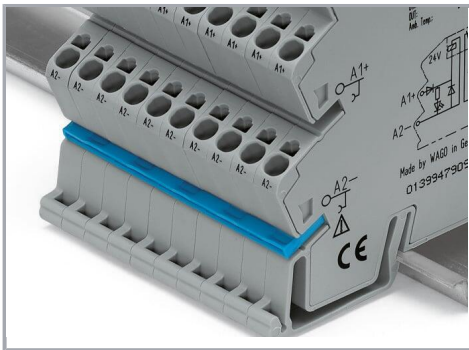


Configuration via DIP switch



Configuration via push/slide switch

### Commoning



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

Subject to changes. Please also observe the further product documentation!