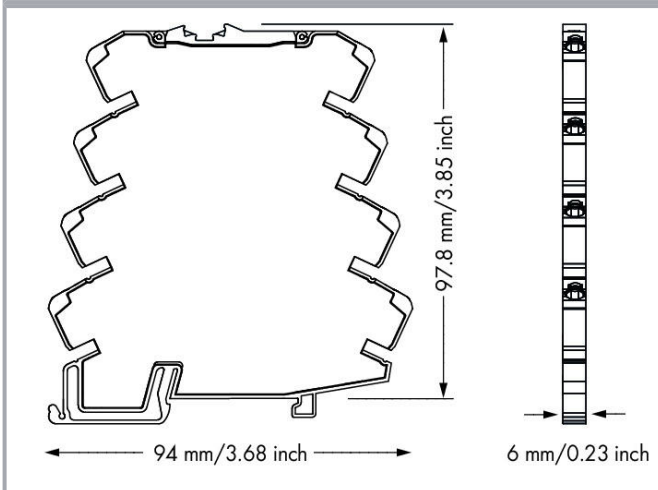
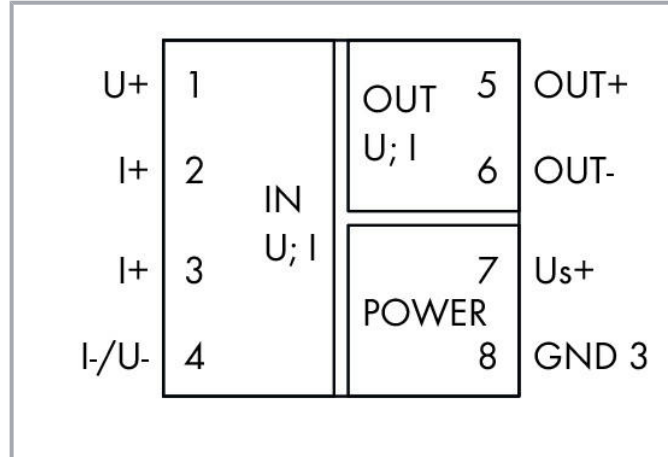
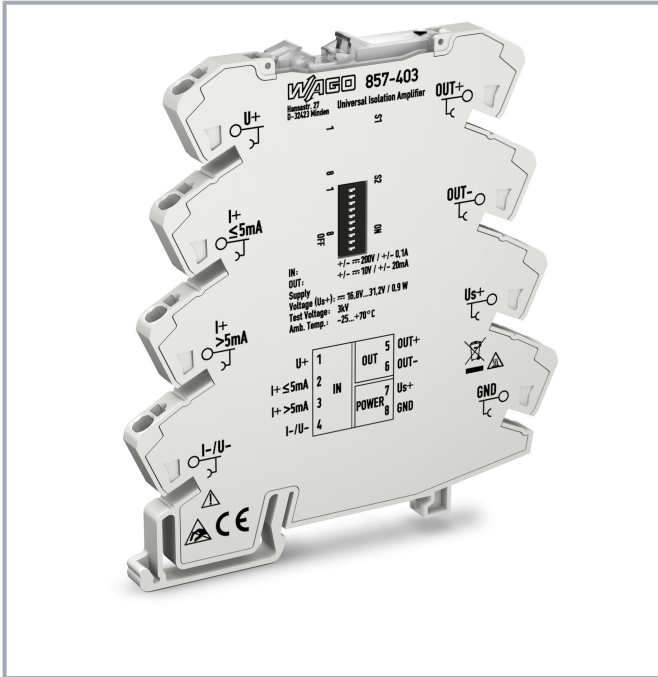


Data sheet | Item number: 857-403

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 mm²



www.wago.com/857-403



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

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857-403
DIP Switch Adjustability

• = ON Default

DIP Switch S1						ZeroSpan Adjustment		Max. Operating Frequency	
1	2	3	4	5	6	7	8	7	8
Input Signal Ranges						ZeroSpan Adjustment		Max. Operating Frequency	
Default setting*						Inactive		5 kHz	
• 0 ... 60 mV						• Active		• 100 Hz	
• ±60 mV									
• 0 ... 100 mV									
• ±100 mV									
• 0 ... 150 mV									
• ±150 mV									
• 0 ... 300 mV									
• ±300 mV									
• 0 ... 500 mV									
• ±500 mV									
• 0 ... 1 V									
• ±1 V									
• 0 ... 5 V									
• ±5 V									
• 0 ... 10 V									
• ±10 V									
• 0 ... 50 V									
• ±50 V									
• 0 ... 100 V									
• ±100 V									
• 0 ... 200 V									
• ±200 V									

DIP Switch S1					
1	2	3	4	5	6
Input Signal Ranges					
• 0 ... 0.3 mA					
• ±0.3 mA					
• 0 ... 1 mA					
• ±1 mA					
• 0 ... 5 mA					
• ±5 mA					
• 0 ... 10 mA					
• ±10 mA					
• 0 ... 20 mA					
• ±20 mA					
• 0 ... 50 mA					
• ±50 mA					
• 0 ... 100 mA					
• ±100 mA					
• 1 ... 5 V					
• 2 ... 10 V					
• 2 ... 10 mA					
• 4 ... 20 mA					

DIP Switch S2					
1	2	3	4	5	6
Output Signal Ranges					
Default setting*					
• 0 ... 10 V					
• ±10 V					
• 2 ... 10 V					
• 0 ... 5 V					
• ±5 V					
• 1 ... 5 V					
• 0 ... 20 mA					
• ±20 mA					
• 4 ... 20 mA					
• 0 ... 10 mA					
• ±10 mA					
• 2 ... 10 mA					

Reserve		Clipping		Rocker Switch Lock	
6	7	6	7	6	7
Inactive (analog response)		Inactive (analog response)		switched off	
• Active (limiting response)		• Active (limiting response)		• switched on	

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.

Item description

Short description:

This 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
- Safe 3-way isolation with 2.5 kV test voltage per EN 61140

Data

Technical data

Configuration

Configuration options

DIP switch

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

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Input

Input signal type	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)
Input resistance (voltage input)	1 M Ω

Output – analog

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

Signal processing

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

Measurement error

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

Supply

Power supply type	24 VDC
Nominal supply voltage U_S	DC 24 V
Supply voltage range	± 30 %
Power consumption at nominal supply voltage	≤ 40 mA

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



Safety and protection

Line-to-neutral conductor voltage	AC 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 per EN 61010-1

Insulation type (input/supply, analog output/relay output)	Reinforced insulation
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Connection data

Connection technology	Push-in CAGE CLAMP®
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch

Physical data

Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	97.8 mm / 3.85 inch
Depth	94 mm / 3.701 inch

Mechanical data

Mounting type	DIN-35 rail
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Material data

Weight	39.9 g
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Environmental requirements

Surrounding air temperature (operation)	-25 ... 70 °C
Surrounding air temperature (storage)	-40 ... 85 °C
Temperature range of connecting cable per UL 61010-2-201 (min.)	90 °C
Relative humidity	5 ... 95 % (no condensation permissible)

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Operating altitude (max.)	2000 m
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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

Packaging type	bag
Country of origin	DE
GTIN	4055144057850
Customs tariff number	8543704500

Optional accessories


Marking accessories

	Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white	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
	Item no.: 793-503 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white	www.wago.com/793-503
	Item no.: 793-504 WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white	www.wago.com/793-504
	Item no.: 793-505 WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; white	www.wago.com/793-505
	Item no.: 793-506 WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white	www.wago.com/793-506

Power supplies

	Item no.: 787-2852 EPSITRON® / JUMPFLEX® power supply; single-phase; 24 VDC; 1 A	www.wago.com/787-2852
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Jumpers

	Item no.: 859-402 Push-in type jumper bar; Light gray; Insulated; 18 A; 2-position	www.wago.com/859-402
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Subject to changes. Please also observe the further product documentation!

	Item no.: 859-403 Push-in type jumper bar; Light gray; Insulated; 18 A; 3-position	www.wago.com/859-403
	Item no.: 859-404 Push-in type jumper bar; Light gray; Insulated; 18 A; 4-position	www.wago.com/859-404
	Item no.: 859-405 Push-in type jumper bar; Light gray; Insulated; 18 A; 5-position	www.wago.com/859-405
	Item no.: 859-406 Push-in type jumper bar; Light gray; Insulated; 18 A; 6-position	www.wago.com/859-406
	Item no.: 859-407 Push-in type jumper bar; Light gray; Insulated; 18 A; 7-position	www.wago.com/859-407
	Item no.: 859-408 Push-in type jumper bar; Light gray; Insulated; 18 A; 8-position	www.wago.com/859-408
	Item no.: 859-409 Push-in type jumper bar; Light gray; Insulated; 18 A; 9-position	www.wago.com/859-409
	Item no.: 859-410 Push-in type jumper bar; Light gray; Insulated; 18 A; 10-position	www.wago.com/859-410

Mounting

	Item no.: 249-116 Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray	www.wago.com/249-116
	Item no.: 249-117 Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray	www.wago.com/249-117
	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

Tools

	Item no.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured	www.wago.com/210-720
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Downloads

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 ²		

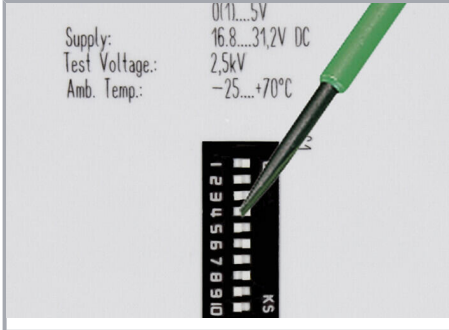
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Installation Notes

Configuration

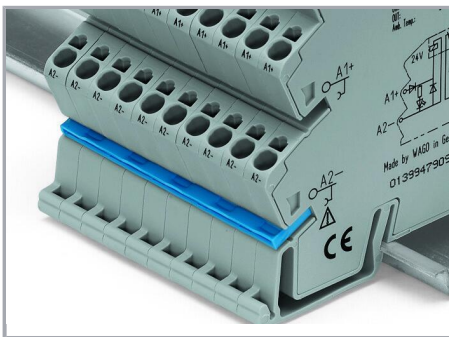


Configuration via DIP switch



Configuration via push/slide switch

Commoning



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

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