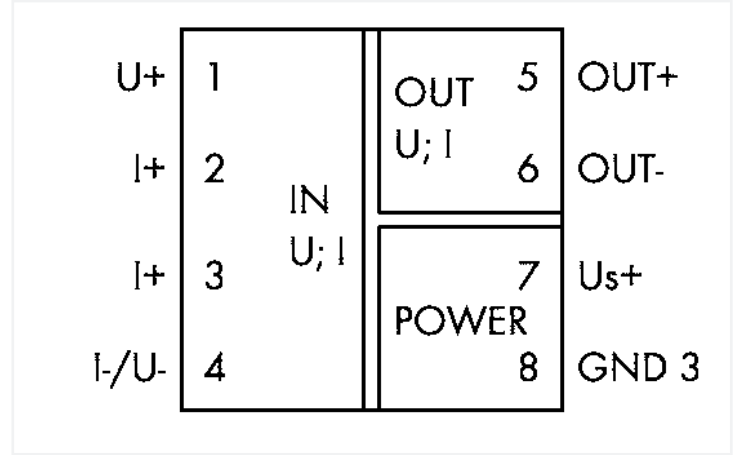


Data Sheet | Item Number: 857-403

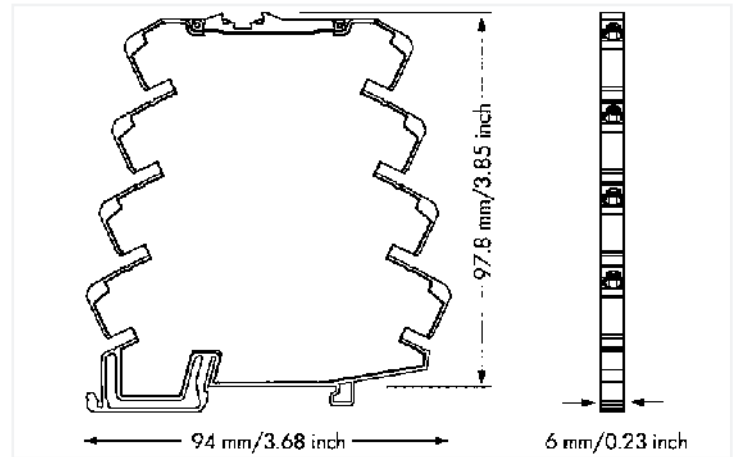
Isolation amplifier; Current and voltage input signal; Bipolar current and voltage output signal; Configuration via DIP switch; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm²



<https://www.wago.com/857-403>



DIP Switch 1 (Input Signal Ranges)				DIP Switch 2 (Output Signal Ranges)			
1	2	3	4	1	2	3	4
0	1	2	3	0	1	2	3
0	0.05mA	0.1mA	0.2mA	0	0.05mA	0.1mA	0.2mA
1	0.5mA	1mA	2mA	1	0.5mA	1mA	2mA
2	5mA	10mA	20mA	2	5mA	10mA	20mA
3	50mA	100mA	200mA	3	50mA	100mA	200mA
4	0.1V	0.2V	0.5V	4	0.1V	0.2V	0.5V
5	0.5V	1V	2V	5	0.5V	1V	2V
6	5V	10V	20V	6	5V	10V	20V
7	50V	100V	200V	7	50V	100V	200V
8	0.1mA	0.2mA	0.5mA	8	0.1mA	0.2mA	0.5mA
9	0.5mA	1mA	2mA	9	0.5mA	1mA	2mA
10	5mA	10mA	20mA	10	5mA	10mA	20mA



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

Notes

Note **Use shielded signal lines!**
 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.

Technical data

Configuration

Configuration options	DIP switch
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Input

Input signal type	Voltage (DC) Current (DC)
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 MΩ

Output (analog)

Output signal type	Current Voltage
Output signal (voltage)	±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 kΩ
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 μs (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 %
Current consumption at nominal supply voltage	≤ 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)
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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 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
ETIM 7.0	EC002653
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4055144057850
Customs tariff number	85437090300

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungs- stelle	TP TC 020/2011	EAC_Certificate_RU_C- DE.AM02.B.00115_19
EAC Brjansker Zertifizierungs- stelle	TP TC 004/2011	EAC RU C-DE.AM02. B.00122/19

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product
Compliance 857-403



Documentation

Instruction Leaflet

Isolation amplifier; Current and voltage input signal	V 1.0.0 04.08.2021	pdf 2381.88 KB	
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1 Compatible Products

1.1 Optional Accessories

1.1.1 Installation

1.1.1.1 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

1.1.2 Jumper

1.1.2.1 Jumper



[Item No.: 859-410](#)

Jumper; for jumper slot; 10-way; insulated; light gray



[Item No.: 859-402](#)

Jumper; for jumper slot; 2-way; insulated; light gray



[Item No.: 859-403](#)

Jumper; for jumper slot; 3-way; insulated; light gray



[Item No.: 859-404](#)

Jumper; for jumper slot; 4-way; insulated; light gray



[Item No.: 859-405](#)

Jumper; for jumper slot; 5-way; insulated; light gray



[Item No.: 859-406](#)

Jumper; for jumper slot; 6-way; insulated; light gray



[Item No.: 859-407](#)

Jumper; for jumper slot; 7-way; insulated; light gray



[Item No.: 859-408](#)

Jumper; for jumper slot; 8-way; insulated; light gray



[Item No.: 859-409](#)

Jumper; for jumper slot; 9-way; insulated; light gray

1.1.3 Marking

1.1.3.1 Marker



Item No.: 793-502

WMB marking card; as card; MARKED; 1 ... 10 (10x); 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

1.1.4 Power supply

1.1.4.1 Power supply unit



Item No.: 787-2852

Switched-mode power supply; 1-phase; 24 VDC output voltage; 1 A output current

1.1.5 Tool

1.1.5.1 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 push/slide switch

Commoning



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