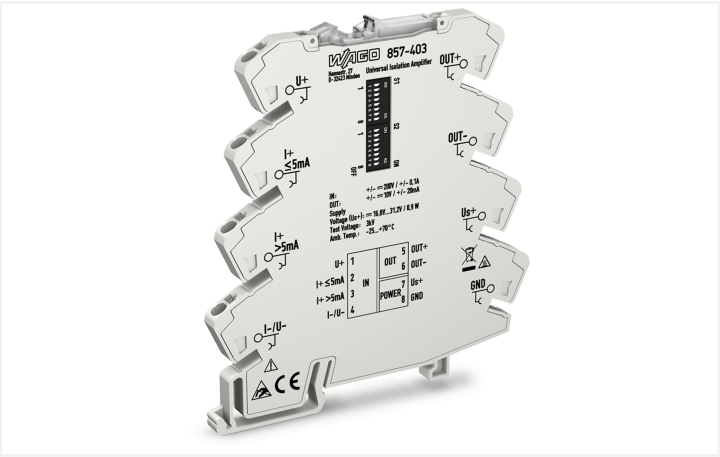
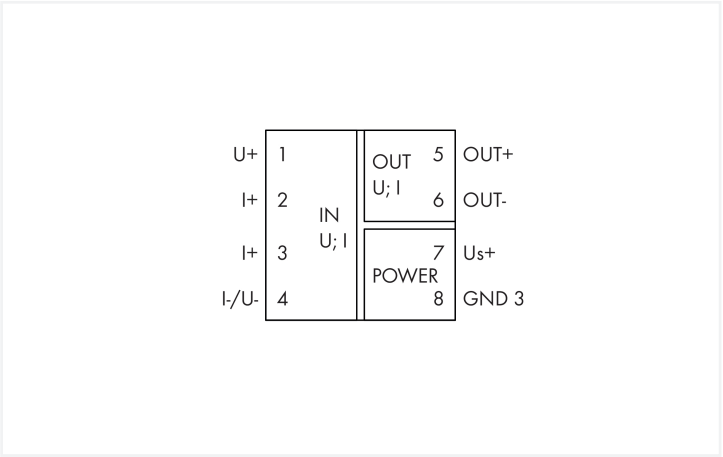
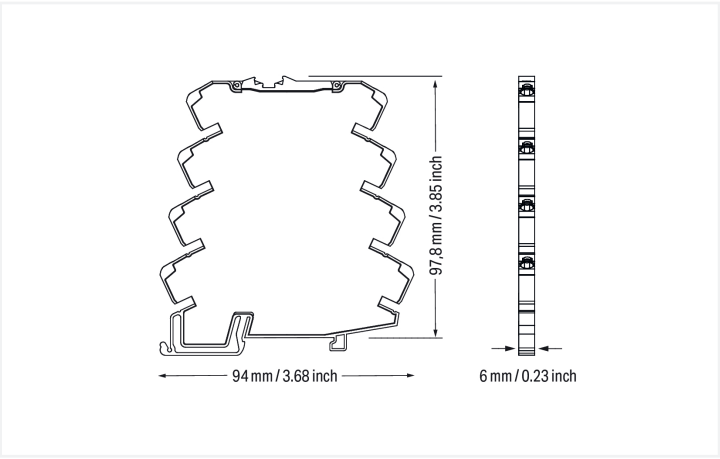
Data Sheet | Item Number: 857-403

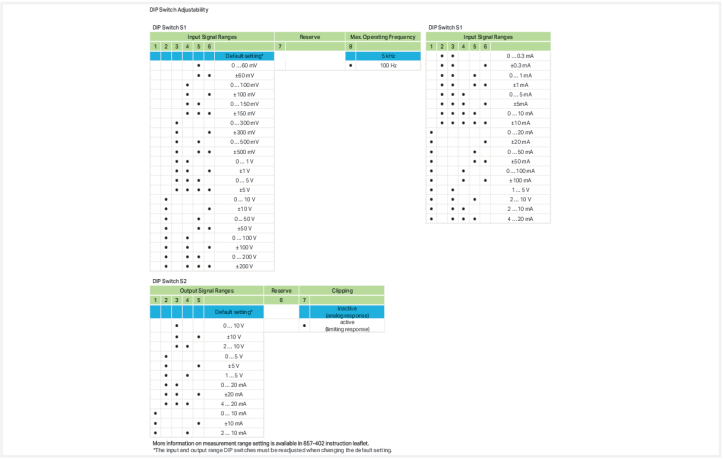
Isolation amplifier; Current and voltage input signal; Bipolar current and voltage output signal; Configuration via DIP switch; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm²

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









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 cables!** Only use shielded signal cables for analog input and output signals. This ensures the device maintains its specified accuracy and immunity to interference, even when external disturbances affect the signal cable.

Technical data

Configuration

Configuration options	DIP switch

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)

Continued on next page

Measurement Error

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

Power Supply

Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
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)	3 kVAC; 50 Hz; 1 min

Insulation coordination

Insulation type (input/supply and analog output/relay output)	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	0.527 MJ
Weight	38 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

Continued on next page

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

PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4066966111668
Customs tariff number	85437090300

Product Classification

UNSPSC	39121008
ETIM 9.0	EC002653
ETIM 10.0	EC002653
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

CAS-No.	11120-22-2 1303-86-2 1317-36-8 7439-92-1 75980-60-8
REACH Candidate List Substance	Diboron trioxide Lead Lead monoxide Lead silicate 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 7c
SCIP notification number (Austria)	a8a004bc-34c5-4ea9-9fd5-3762e2a2f8e0
SCIP notification number (Belgium)	c424778a-3314-475a-9226-5795843c2fda
SCIP notification number (Bulgaria)	8b595184-c1c5-4426-a1e7-2f6f8159c4f4
SCIP notification number (Czech Republic)	b6f3f06c-3e9a-4abb-bece-809b95b08dcd
SCIP notification number (Denmark)	6bae2c8f-914a-4fb5-b220-2b7bad4078ed
SCIP notification number (Finland)	154844fb-82cf-4059-b5ef-9b44733f003a
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SCIP notification number (Sweden)	86b84c70-023f-466f-8f3b-286656609762

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Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 004/2011	EAC CoC 03078
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 857-403

Documentation

Manual

WAGO Isolating Amplifiers

Instruction Leaflet

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

CAD/CAE-Data

CAD data

2D/3D Models 857-403

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

Continued on next page

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



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

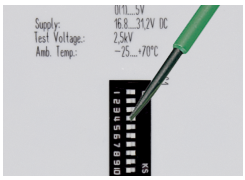


Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

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Installation Notes

Configuring

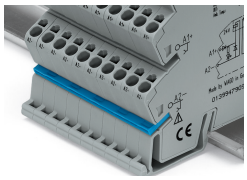


Configuration via DIP switch



Configuration via push/slide switch

Commoning



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