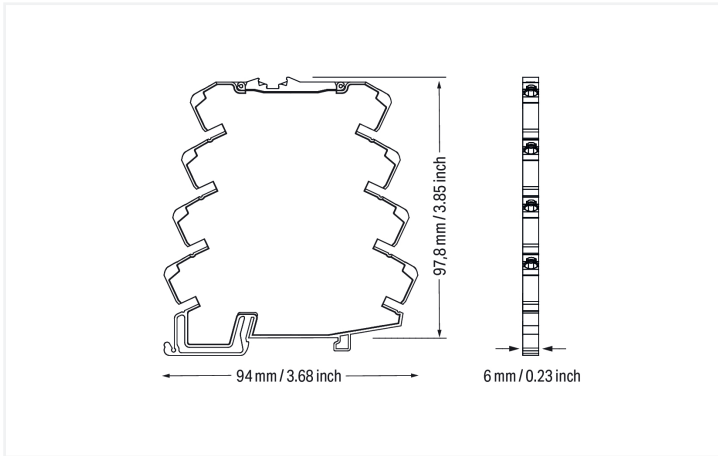
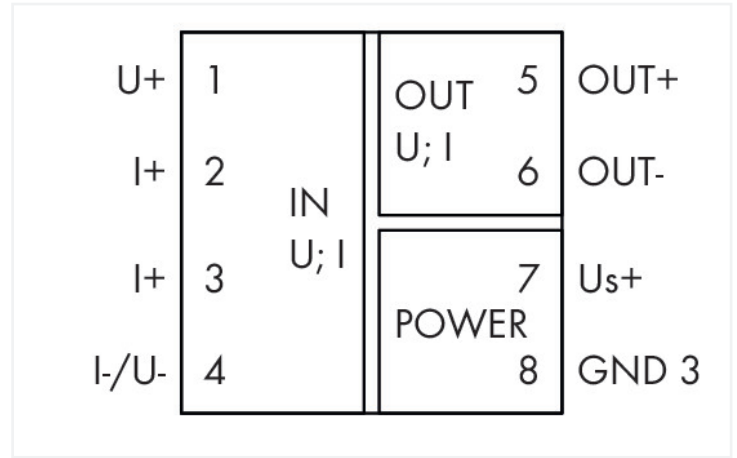


Data Sheet | Item Number: 857-403

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-Adjustability

DIP Switch S1				Reserve	Max. Operating Frequency	DIP Switch S2					
1	2	3	4	5	6	7	8	9	10	11	12
Input Signal Ranges	0...80 mV	0...100 mV	0...150 mV	0...200 mV	0...300 mV	0...500 mV	0...1 V	0...10 V	0...10 V	0...100 V	0...200 V
Reserve	Default setting	Reserve	Reserve	Reserve	Reserve	Reserve	Reserve	Reserve	Reserve	Reserve	Reserve
Input Signal Ranges	0...0.3 mA	0...1 mA	0...1 mA	0...1 mA	0...1 mA	0...1 mA	0...1 mA	0...1 mA	0...1 mA	0...1 mA	0...1 mA
Output Signal Ranges	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V
Output Signal Ranges	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V	0...10 V

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

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)
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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 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
---------------	-------------

Material data

Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.191 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

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
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
SCIP notification number (France)	65fa3ca6-9c95-4781-8fb2-2fa2faedd624
SCIP notification number (Germany)	516c27d5-1efb-47e0-b2a8-6a0202211e5e
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SCIP notification number (Italy)	cc361fab-b71b-4544-998e-a543af9c80c5
SCIP notification number (Netherlands)	a7270535-33a4-4e1c-9a38-edc13bc743b3
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SCIP notification number (Romania)	689fb8bc-de7b-4fe6-bec9-5c417eaacf08
SCIP notification number (Sweden)	86b84c70-023f-466f-8f3b-286656609762

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 Confor- mity WAGO GmbH & Co. KG	-	-

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product
Compliance 857-403



Documentation

Manual

WAGO Isolating Ampli-
fiers



Instruction Leaflet

Isolation amplifier; Cur-
rent 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

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

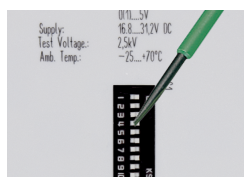


Item No.: 210-720

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

Installation Notes

Configuring

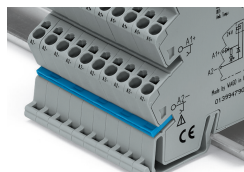


Configuration via DIP switch



Configuration via push/slide switch

Commoning



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