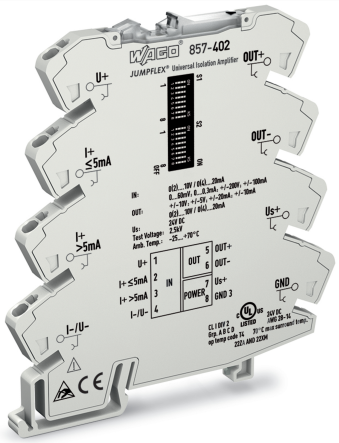
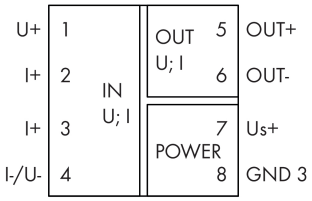
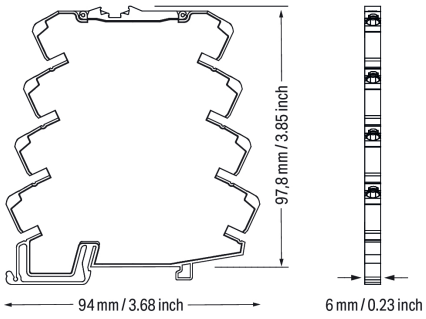
Data Sheet | Item Number: 857-402

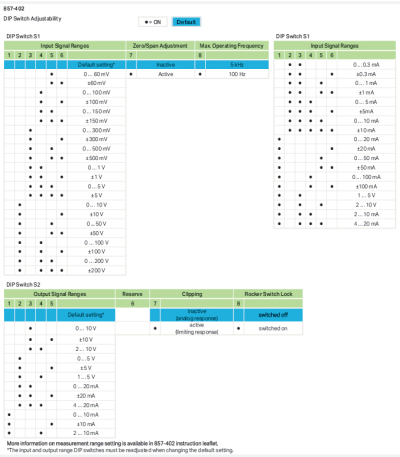
Isolation amplifier; Current and voltage input signal; Bipolar current and voltage output signal; Zero/span adjustment; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm²

https://www.wago.com/857-402









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
- Zero/span adjustment across the entire measurement range (via push/slide switch)
- 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

Technical data

Configuration

Configuration options	DIP switch Push/slide switch

Input

Input signal type	Voltage Current

Input

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
Zero/span adjustment	adjustable via push/slide switch

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

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

Protection type	IP20

Test voltage

Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min

Continued on next page

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	0.598 MJ
Weight	38.4 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

Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4050821099772
Customs tariff number	85437090300
End of Sale	2020-12-31
End of Production	2021-01-05
End of Delivery	2021-01-15
End of Service and Repair	2022-12-31

Continued on next page

Product Classification

UNSPSC	32101502
eCl@ss 10.0	27-21-01-20
eCl@ss 9.0	27-21-01-20
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)	7c1afd18-ec9f-445f-89e5-2cf8aee46324
SCIP notification number (Belgium)	1c4fd152-a24e-4953-96a9-cccb572085ea
SCIP notification number (Bulgaria)	5029fa79-5c8f-4625-8e02-572e2ceaa02f
SCIP notification number (Czech Republic)	7c44fd98-4a2a-44c5-bd3e-2d4f9c0ff9bc
SCIP notification number (Denmark)	a7fdb0a6-0fcb-4822-9ee5-6ed89c172248
SCIP notification number (Finland)	43a84fd9-4bbd-4a6c-bd04-a20b3f54a5d3
SCIP notification number (France)	d8cc2984-14b7-4b28-9094-12a453f5fbc5
SCIP notification number (Germany)	ab2b4551-fd12-4d0f-aeb0-3635c231f4f6
SCIP notification number (Hungary)	e946114a-c0e5-46e5-aa8a-47b2d61d243b
SCIP notification number (Italy)	c31b2c36-621d-43e2-95b7-ae6ed86d6463
SCIP notification number (Netherlands)	3b7c9966-02fe-4950-b941-aa69cb9a2782
SCIP notification number (Poland)	c33eab76-c36f-4773-8d6e-98d8ae65fee5
SCIP notification number (Romania)	adfe6f20-d011-4059-aefd-e82f1d5e6e9e
SCIP notification number (Sweden)	5507d526-041f-496d-a3ec-4e2ab74057ea

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.4

Declarations of conformity and manufacturer's declarations

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

Continued on next page

Approvals for hazardous areas

Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	ANSI/ISA 12.12.01	E198726

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 857-402

Documentation

Bid Text

857-402	18.07.2019	xml 6.82 KB
857-402	18.07.2019	docx 18.71 KB
857-402	18.07.2019	pdf 75.55 KB

Instruction Leaflet

Messumformer und Trennverstärker	pdf 1747.71 KB

CAD/CAE-Data

CAD data

2D/3D Models 857-402

CAE data

EPLAN Data Portal 857-402

WSCAD Universe 857-402

ZUKEN Portal 857-402

Continued on next page

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 Interface module

1.1.2.1 Interface adapters



Item No.: 857-980
Interface adapter; 16-pole; analog

1.1.3 Jumper

1.1.3.1 Jumper



Item No.: 281-482
Jumper; 2-way; insulated; gray



Item No.: 859-410/000-006
Jumper; for jumper slot; 10-way; insulated; blue



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



Item No.: 859-410/000-005
Jumper; for jumper slot; 10-way; insulated; red



Item No.: 859-410/000-029
Jumper; for jumper slot; 10-way; insulated; yellow



Item No.: 859-402/000-006
Jumper; for jumper slot; 2-way; insulated; blue



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



Item No.: 859-402/000-005
Jumper; for jumper slot; 2-way; insulated; red



Item No.: 859-402/000-029
Jumper; for jumper slot; 2-way; insulated; yellow

Item No.: 859-403/000-006
Jumper; for jumper slot; 3-way; insulated; blue



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



Item No.: 859-403/000-005
Jumper; for jumper slot; 3-way; insulated; red



Item No.: 859-403/000-029
Jumper; for jumper slot; 3-way; insulated; yellow



Item No.: 859-404/000-006
Jumper; for jumper slot; 4-way; insulated; blue



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



Item No.: 859-404/000-005
Jumper; for jumper slot; 4-way; insulated; red



Item No.: 859-404/000-029
Jumper; for jumper slot; 4-way; insulated; yellow



Item No.: 859-405/000-006
Jumper; for jumper slot; 5-way; insulated; blue



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



Item No.: 859-405/000-005
Jumper; for jumper slot; 5-way; insulated; red



Item No.: 859-405/000-029
Jumper; for jumper slot; 5-way; insulated; yellow



Item No.: 859-406/000-006
Jumper; for jumper slot; 6-way; insulated; blue



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



Item No.: 859-406/000-005
Jumper; for jumper slot; 6-way; insulated; red



Item No.: 859-406/000-029
Jumper; for jumper slot; 6-way; insulated; yellow



Item No.: 859-407/000-006
Jumper; for jumper slot; 7-way; insulated; blue



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



Item No.: 859-407/000-005
Jumper; for jumper slot; 7-way; insulated; red

Continued on next page

1.1.3.1 Jumper



Item No.: 859-407/000-029
Jumper; for jumper slot; 7-way; insulated; yellow



Item No.: 859-408/000-006
Jumper; for jumper slot; 8-way; insulated; blue



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



Item No.: 859-408/000-005
Jumper; for jumper slot; 8-way; insulated; red



Item No.: 859-408/000-029
Jumper; for jumper slot; 8-way; insulated; yellow



Item No.: 859-409/000-006
Jumper; for jumper slot; 9-way; insulated; blue



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



Item No.: 859-409/000-005
Jumper; for jumper slot; 9-way; insulated; red



Item No.: 859-409/000-029
Jumper; for jumper slot; 9-way; insulated; yellow

1.1.4 Marking

1.1.4.1 Marker

Item No.: 793-5501
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white



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



Item No.: 793-566
WMB marking card; as card; MARKED; 1 ... 50 (2x); 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



Item No.: 2009-115
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

1.1.4.2 Marking strip



Item No.: 2009-110
Marking strips; for Smart Printer; 50 m on roll; not stretchable; plain; snap-on type; white

1.1.5 Power supply

1.1.5.1 Power Supply



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

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1.1.6 Terminal blocks

1.1.6.1 Supply and through module



Item No.: 857-979
Supply and through module

1.1.7 Tool

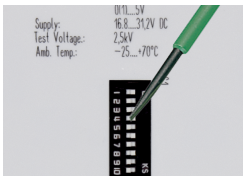
1.1.7.1 Operating tool



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

Installation Notes

Configuring

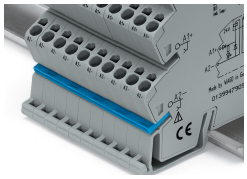


Configuration via DIP switch



Configuration via push/slide switch

Commoning



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