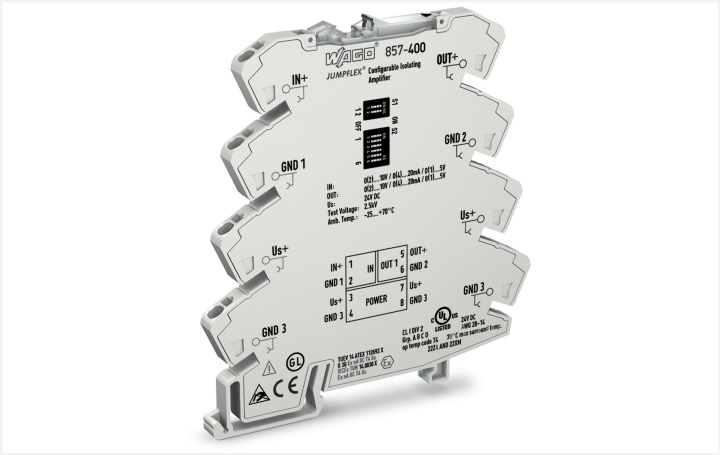
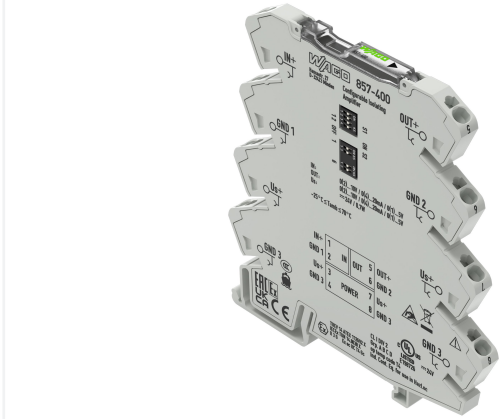
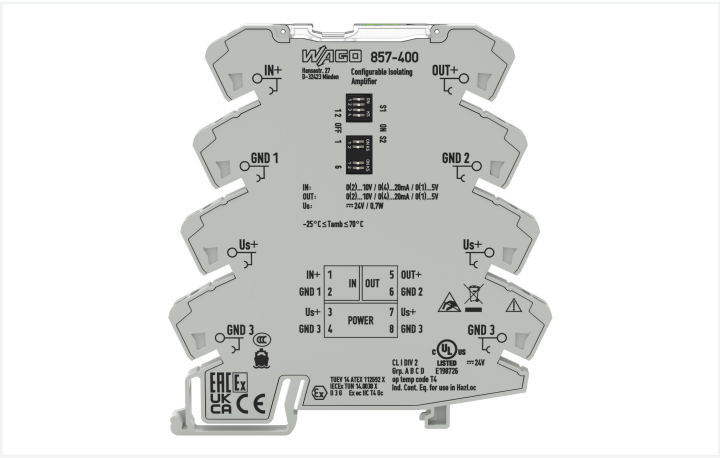
Data Sheet | Item Number: 857-400

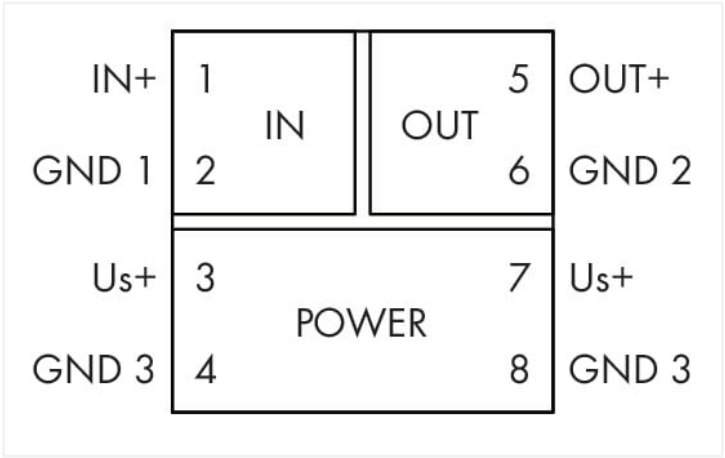
Isolation amplifier; Current and voltage input signal; Current and voltage output signal; Zero/span adjustment; Configuration via DIP switch; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm²

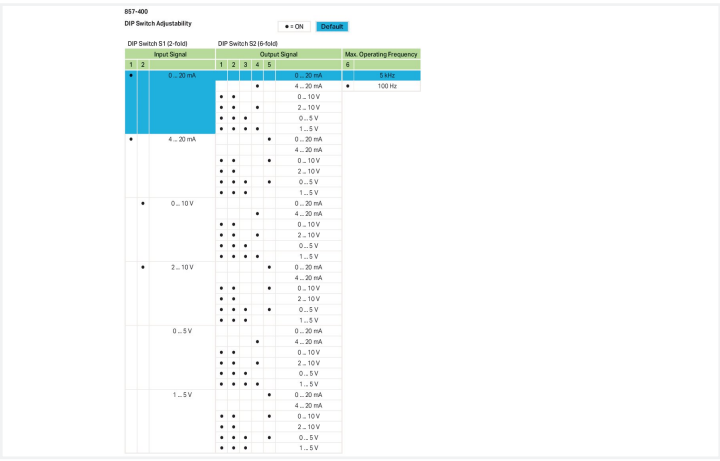
https://www.wago.com/857-400

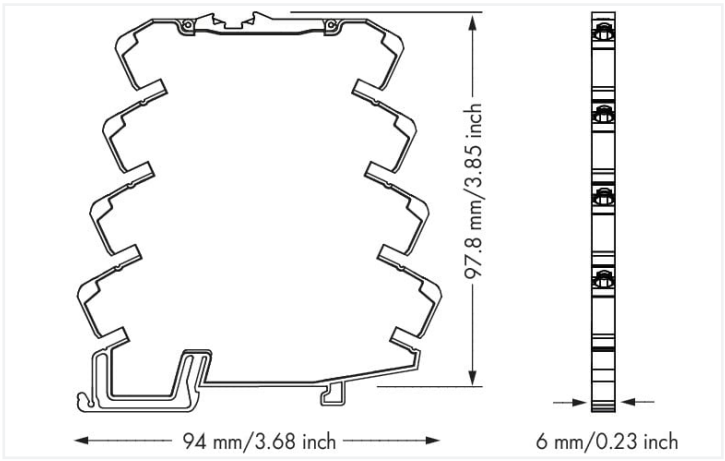












Dimensions in mm

Short description:

WAGO's configurable signal conditioner converts, amplifies, filters and electrically isolates standard analog signals.

Features:

- Calibrated measurement range switching
- Switchable limit frequency

Notes

Safety Information	Input and output must be safely isolated from any hazardous live parts!
Note	The 3 (Us+), 7 (Us+), 4 (GND 3) and 8 (GND 3) connections are internally commoned. Current carrying capacity between 3/4 and 7/8 connections: 1 A (max.) **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 Potentiometer

Input

Input signal type	Voltage Current
Input signal (voltage)	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V (calibrated, switchable)
Input signal (current)	0 … 20 mA 4 … 20 mA (calibrated, switchable)
Input resistance (current input)	≤ 50 Ω
Input resistance (voltage input)	≥ 100 kΩ
Input current (max.)	50 mA
Input voltage (max.)	30 V
Zero/span adjustment	± 3% of upper-range value

Output (analog)

Output signal type	Current Voltage
Output signal (voltage)	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V (calibrated (as delivered), switchable)
Output signal (current)	0 … 20 mA 4 … 20 mA 0 … 10 mA 2 … 10 mA (kalibriert (im Auslieferungszustand), umschaltbar)
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.)	≤ 0.1 % of upper-range value
Transmission error (max.)	≤ 0.2 % of upper-range value
Transmission error (under interference)	≤ 15 % of upper-range value
Temperature coefficient	≤ 0.01 %/K

Power supply

Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	DC 24 V
Supply voltage range	±30 %
Current consumption (default)	≤ 30 mA
Current consumption (max.)	≤ 40 mA (I_{out} 20 mA; Load impedance: 600 Ω; U_s: 16.8 V)

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Safety and protection

Rated Voltage	300 V
Protection type	IP20

Test voltage

Test voltage (input/output/supply)	AC 3 kV; 50 Hz; 1 min

Insulation coordination

Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply)	Functional insulation
Insulation type (adjacent devices)	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	0.363 MJ
Weight	43 g

Environmental requirements

Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

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