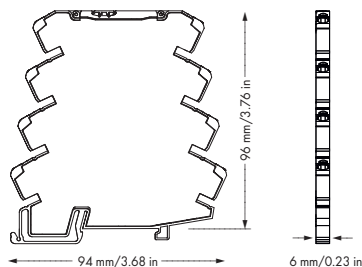
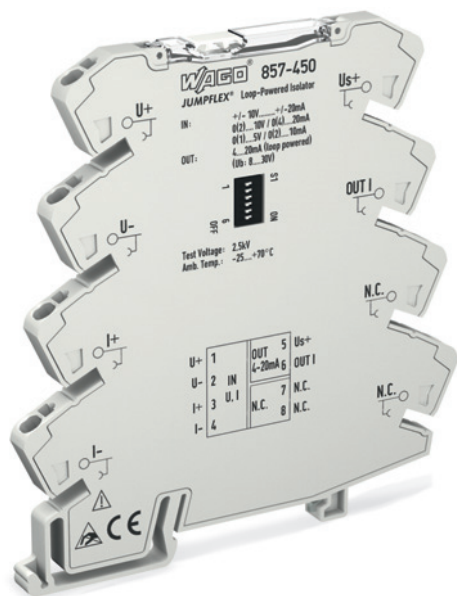
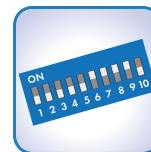


# JUMPFLEX® Signal Conditioners

## Loop-Powered Isolation Amplifier



Configuration via:



DIP switch

U+	1	OUT	5	Us+
U-	2	IN	4-20 mA	OUT I
I+	3	U, I	6	
I-	4	N.C.	7	N.C.
		N.C.	8	N.C.

### Short description:

The 857-450 Loop-Powered Isolation Amplifier converts analog, unipolar and bipolar, standard signals. It is also designed to amplify, filter and electrically isolate standard analog signals.

### Characteristics:

- No additional supply voltage required
- Zero/span adjustment
- Analog, unipolar and bipolar, standard signals at input
- Calibrated scale switching
- Switchable max. operating frequency
- Safe 2-way isolation with 2.5 kV test voltage to EN 61140

### Technical Data

#### Configuration:

Configuration DIP switch

#### Input:

Input signal

#### Current:

± 5 mA, 0 ... 5 mA,  
± 10 mA, 0 ... 10 mA, 2 ... 10 mA,  
± 20 mA, 0 ... 20 mA, 4 ... 20 mA

#### Voltage:

± 1 V, 0 ... 1 V,  
± 5 V, 0 ... 5 V, 1 ... 5 V,  
± 10 V, 0 ... 10 V, 2 ... 10 V,  
± 20 V, ± 2 V, 0 ... 2 V

Input resistance

approx. 1 MΩ (U input)  
approx. 50 Ω (I input)

#### Output:

Output signal

4 ... 20 mA

Load impedance

≤ 600 Ω

Overload capacity

30 V / 50 mA

#### General specifications:

Supply voltage

8 ... 30 V, power is derived from the output circuit

Max. operating frequency

100 Hz / 30 Hz

Response time (T<sub>10/90</sub>)

3.5 ms

Transmission error

≤ 0.1 % of upper range value

Temperature coefficient

≤ 0.01 % / K

Zero/span adjustment

± 5 % of upper range value

### Description

**JUMPFLEX® Signal Conditioner, for DIN 35 rail**  
Loop-Powered Isolation Amplifier

### Item No.

**857-450**

### Pack. Unit

1

### Technical Data

#### Environmental requirements:

Ambient operating temperature -25 °C ... +70 °C  
Storage temperature -40 °C ... +85 °C

#### Safety and protection:

Test voltage (input/output/supply) 2.5 kV AC, 50 Hz, 1 min.

#### Connection and type of mounting:

Wire connection Push-in CAGE CLAMP®  
Cross sections solid:  
0.08 mm<sup>2</sup> ... 2.5 mm<sup>2</sup> / AWG 28 ... 12  
fine-stranded:  
0.34 mm<sup>2</sup> ... 2.5 mm<sup>2</sup> / AWG 22 ... 14  
Strip lengths 9 ... 10 mm / 0.35 ... 0.39 in

#### Dimensions and weight:

Dimensions (mm) W x H x L 6 x 96 x 94  
Height from upper-edge of DIN 35 rail  
Weight 37 g

#### Standards and approvals:

Conformity marking CE  
UL 508  
ANSI/ISA 12.12.01 Class I, Div. 2, Grp. ABCD, T4  
EMC immunity of interference EN 61000-6-2  
EMC emission of interference EN 61000-6-3

#### Accessories

see pages 226 ... 236

## DIP Switch Adjustability

● = ON

857-450

DIP switch (6 positions)

Input Signal					Output Signal	Max. Operating Frequency	
1	2	3	4	5		6	
					4 ... 20 mA		100 Hz
●		●	●			●	30 Hz
●		●	●	●			
●		●					
●			●				
●			●	●			
●				●			
	●	●	●				
	●	●	●	●			
	●						
	●		●				
	●		●	●			
	●			●			
		●	●				
		●	●	●			
		●					
			●				
			●	●			
				●			
				●			

### Default setting

Input	4 ... 20 mA
Output	4 ... 20 mA
Max. operating frequency	100 Hz

## Wiring Material

