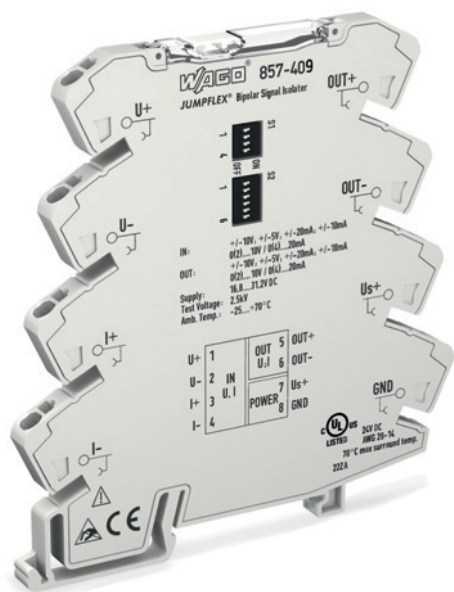
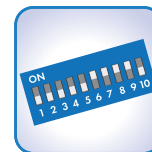


JUMPFLEX® Signal Conditioners

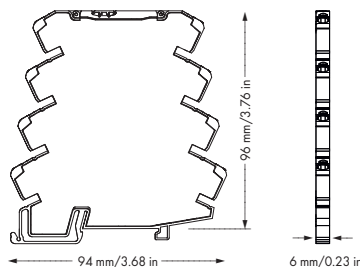
Bipolar Isolation Amplifier



Configuration via:



DIP switch



U+	1	IN U; I	OUT	5	OUT+
U-	2		U; I	6	OUT-
I+	3	POWER		7	Us+
I-	4			8	GND

Short description:

The 857-409 Bipolar Isolation Amplifier converts unipolar and bipolar standard signals and amplifies, filters and electrically isolates analog standard signals.

Characteristics:

- Overload protection of current input using reversible fuse
- Zero/span adjustment across the entire measuring range
- Calibrated scale switching
- Standard analog unipolar and bipolar signals, input/output
- Switchable max. operating frequency
- Safe 3-way isolation with 2.5kV test voltage to EN 61140

Description	Item No.	Pack. Unit
JUMPFLEX® Signal Conditioner, for DIN 35 rail Bipolar Isolation Amplifier	857-409	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 mm² ... 2.5 mm² / AWG 28 ... 14 fine-stranded: 0.34 mm² ... 2.5 mm² / 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	42 g	
Standards and approvals:		
Conformity marking	CE	
UL 508		
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4	
Shipbuilding	GL, PRS, BV	
EMC immunity of interference	EN 61000-6-2	
EMC emission of interference	EN 61000-6-3	
Accessories	see pages 226 ... 236	

Technical Data	
Configuration:	
Configuration	DIP switch
Input:	
Input signal	Voltage: ± 5V, 0 - 5V, 1 - 5V, ± 10V, 0 - 10V, 2 - 10V Current: ± 10mA, 0 - 10mA, 2 - 10mA, ± 20mA, 0 - 20mA, 4 - 20mA
Input resistance	approx. 1MΩ (U input) approx. 50Ω (I input)
Output:	
Output signal	Voltage: ± 5V, 0 - 5V, 1 - 5V, ± 10V, 0 - 10V, 2 - 10V, Current: ± 10mA, 0 - 10mA, 2 - 10mA, ± 20mA, 0 - 20mA, 4 - 20mA
Load impedance	≤ 600 Ω (I output) ≥ 2 kΩ (U output)
Overload capacity	32 V / 50 mA
Residual ripple	< 10mV eff
General specifications:	
Nominal supply voltage V _s	24 VDC
Supply voltage range	V _s -30 % ... +30 %
Current consumption at 24 VDC	≤ 25 mA
Max. operating frequency	100 Hz / > 5 kHz (switchable via DIP switch)
Response time (T _{10/90})	< 3.5ms / < 60μs
Transmission error	≤ 0.1 % of upper range value
Temperature coefficient	≤ 0.01% /K
Zero/span adjustment	± 5 % of upper range value (adjustable via zero/span potentiometer)

DIP Switch Adjustability

● = ON

857-409

Dip Switch S1 (4-fold)

Dip Switch S2 (6-fold)

Input Signal				Output Signal					Max. Operating Frequency		
1	2	3	4	1	2	3	4	5	6		
●								●		± 20 mA	5 kHz
●	●						●	●		± 10 mA	100 Hz
●				●	●			●		± 10 V	
●	●			●	●	●	●			± 5 V	
									●	0 ... 20 mA	
		●						●		4 ... 20 mA	
	●					●				0 ... 10 mA	
	●	●				●		●		2 ... 10 mA	
				●	●					0 ... 10 V	
		●		●	●			●		2 ... 10 V	
	●			●	●	●				0 ... 5 V	
	●	●		●	●	●		●		1 ... 5 V	

Default Settings

Input	± 10 V
Output	± 10 V
Max. Operating Frequency	5 kHz