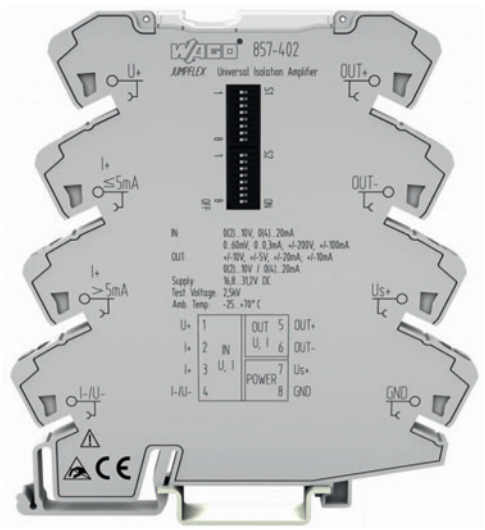
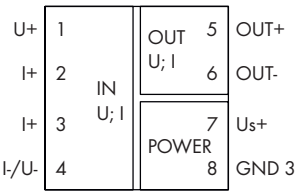
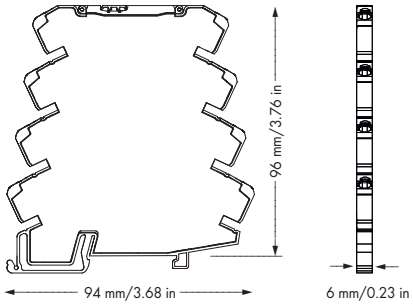
857-402

JUMPFLEX® Transducers

Universal Isolation Amplifier







Short description:
The 857-402 Universal Isolation Amplifier converts, amplifies and electrically isolates analog standard signals. The device has a 3-way isolation with a 2.5kV test voltage. In addition to standard signals, both unipolar and bipolar signals (± 10V, ± 20mA) up to 200V and 100mA can be set on the input side via DIP switches, which are accessible from the side of the housing. The analog output also supports standard unipolar and bipolar signals. Measurement range switching is calibrated. The device is supplied with 24VDC, which can be efficiently commoned using lateral push-in type jumper bars. A green LED on the front panel indicates normal operation.

The isolation amplifier provides safe isolation of input, output and supply circuits with 2.5kV test voltage according to EN 61140.

A self-resetting fuse effectively protects the current input against overload. The fuse automatically resets when the overload is removed.

Description	Item No.	Pack. Unit
Universal isolation amplifier	**857-402**	1

Accessories

General accessories	see Full Line Catalog 2010/2011
	Interface Modules

Approvals

Shipbuilding	GL (pending)
cULus ANSI/ISA 12.12.01	(pending)
Conformity marking	CE

General Specifications

Dimensions (mm) W x H x L	6 x 96 x 94
	Height from upper-edge of DIN 35 rail
Wire connection	CAGE CLAMP®S
Cross sections	solid: 0.08 mm² ... 2.5 mm² /
	AWG 28 ... 12
	fine-stranded: 0.34 mm² ... 2.5 mm² /
	AWG 22 ... 12
Stripped lengths	9 ... 10 mm / 0.37 in
Ambient operating temperature	-25 °C ... +70 °C
Storage temperature	-40 °C ... +85 °C

Technical Data

Configuration	DIP switch
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
	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
Output signal	**Voltage:**
	± 10 V, 0 ... 10 V, 2 ... 10 V,
	± 5 V, 0 ... 5 V, 1 ... 5 V
	Current:
	± 20 mA, 0 ... 20 mA, 4 ... 20 mA,
	± 10 mA, 0 ... 10 mA, 2 ... 10 mA
Load impedance	≤ 600 Ω (I output)
	≥ 1 kΩ (U output)
Max. operating frequency	100 Hz / > 5 kHz
	(switchable via DIP switch)
Voltage supply V_N	DC 24 V
Supply voltage range	16.8 V ... 31.2 V
Transmission error	< 0.08 % of upper range value
Test voltage	
(input/output/supply)	2.5 kV AC, 50 Hz, 1 min.