

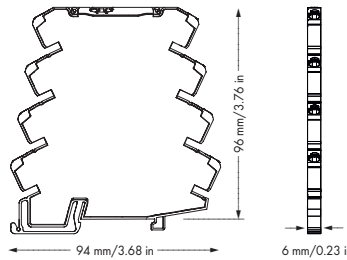
Configuration via:



DIP Switches



Push/Slide Switch



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

Short description:

The universal 857-402 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 (slide switch)
- Calibrated scale switching for all 456 signals
- Standard analog unipolar and bipolar signals, input/output
- Switchable max. operating frequency
- Clipping capability allows analog standard signal limitation to upper range values.
- Safe 3-way isolation with 2.5kV test voltage to EN 61140

Technical Data	
Configuration:	
Configuration	DIP switches, push/slide switch
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 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	approx. 1 MΩ (U input) ≤ 5 mA approx. 100 Ω; > 5 mA approx. 10 Ω (I input)
Output:	
Output signal	Voltage: ± 5 V, 0 ... 5 V, 1 ... 5 V, ± 10 V, 0 ... 10 V, 2 ... 10 V Current: ± 10 mA, 0 ... 10 mA, 2 ... 10 mA, ± 20 mA, 0 ... 20 mA, 4 ... 20 mA
Load impedance	≤ 600 Ω (I output) ≥ 1 kΩ (U output)

Description	Item No.	Pack. Unit
JUMPFLEX® Transducer, for DIN 35 rail	857-402	1
Universal isolation amplifier		
Technical Data		
General specifications:		
Voltage supply V _N	24 V DC	
Supply voltage range	16.8 V ... 31.2 V	
Current consumption at 24 V DC	≤ 40 mA	
Max. operating frequency	100 Hz / > 5 kHz (switchable via DIP switch)	
Response time (T _{10,90})	< 3.5 ms / < 100 μs	
Transmission error	≤ 0.08 % of upper range value	
Temperature coefficient	≤ 0.01 % / K	
Zero/span adjustment	Adjustable via push/slide switch	
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	CAGE CLAMP® S	
Cross sections	solid: 0.08 mm ² ... 2.5 mm ² / AWG 28 ... 14 fine-stranded: 0.34 mm ² ... 2.5 mm ² / AWG 22 ... 14	
Strip lengths	9 ... 10 mm / 0.37 in	
Dimensions and weight:		
Dimensions (mm) W x H x L	6 x 96 x 94	
Weight	Height from upper-edge of DIN 35 rail 54.3 g	
Standards and approvals:		
Conformity marking	CE	
UL 508		
ANSI/ISA 12.12.01	(pending)	
Shipbuilding	@ (pending)	
Accessories	see pages 268 ... 271	

DIP Switch Adjustability

● = ON

857-402

DIP Switch S1

Input Signal Ranges						Zero/Span Adjustment		Max. Operating Frequency		
1	2	3	4	5	6	7	8			
								Default setting*	Inactive	< 100 Hz
				●		●		0 ... 60 mV	Active	≥ 5 kHz
				●	●			± 60 mV		
			●					0 ... 100 mV		
			●	●				± 100 mV		
			●	●				0 ... 150 mV		
			●	●	●			± 150 mV		
	●							0 ... 300 mV		
	●			●				± 300 mV		
	●	●						0 ... 500 mV		
	●	●	●					± 500 mV		
	●	●						0 ... 1 V		
	●	●		●				± 1 V		
	●	●	●					0 ... 5 V		
	●	●	●	●				± 5 V		
●								0 ... 10 V		
●				●				± 10 V		
●			●					0 ... 50 V		
●			●	●				± 50 V		
●	●							0 ... 100 V		
●	●			●				± 100 V		
●	●	●						0 ... 200 V		
●	●	●	●					± 200 V		

DIP Switch S1

Input Signal Ranges					
1	2	3	4	5	6
●	●				
●	●			●	
●	●		●		
●	●	●	●		
●	●	●			
●	●	●	●	●	
●	●	●	●	●	●
●					
●				●	
●			●		
●			●	●	
●		●			
●		●	●		
●	●				
●	●		●		
●	●	●			
●	●	●	●		

More information on measurement range setting is available in 857-402 instruction leaflet.

DIP Switch S2

Output Signal Ranges					Reserve	Clipping		Rocker Switch Lock
1	2	3	4	5	6	7	8	
								Default setting*
		●				●		inactive (analog response)
		●	●				●	active (limiting response)
		●		●				switched off
		●	●					switched on
		●						0 ... 10 V
		●	●					± 10 V
		●						2 ... 10 V
	●							0 ... 5 V
	●		●					± 5 V
	●	●						1 ... 5 V
	●	●		●				0 ... 20 mA
	●	●		●				± 20 mA
	●	●	●					4 ... 20 mA
●								0 ... 10 mA
●				●				± 10 mA
●			●					2 ... 10 mA

*** Default setting**

Input	± 10 V
Output	± 10 V
Max. operating frequency	> 5 kHz
*The input and output range DIP switches must be readjusted when changing the default setting.	