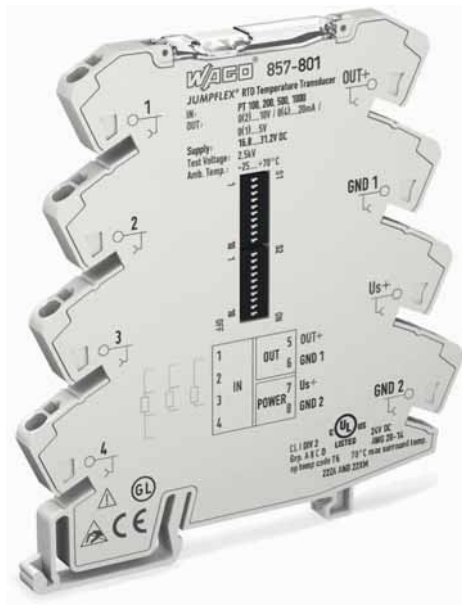
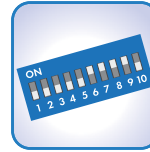


JUMPFLEX® Transducers

Temperature transducer for Pt100, Pt200, Pt500 and Pt1000 * as well as resistors 0 ... 1 kΩ; 0 ... 4.5 kΩ



Configuration via:



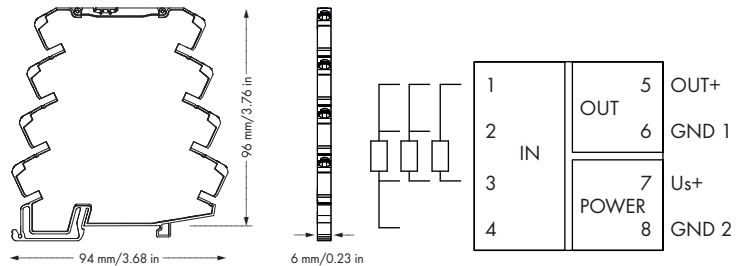
DIP Switches



PC Configuration Software



Smartphone App



Short description:

The 857-801 Temperature Transducer records Pt100, Pt200, Pt500 and Pt1000 sensors, as well as resistors up to 4.5 kΩ, converting the temperature signal into a standard analog signal on the output side.

Characteristics:

- PC configuration interface
- For Pt100, Pt200, Pt500 and Pt1000 sensors, as well as resistors up to 4.5 kΩ
- 2-, 3-, and 4-wire connection technology
- Calibrated scale switching
- Sensor's wire break/short circuit
- Measuring range underflow/overflow
- 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, PC configuration software, smartphone app
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Input:

Input signal	PT sensors and resistors *
Sensor types	Pt100, Pt200, Pt500, Pt1000 *
Sensor connection	2-wire, 3-wire, 4-wire (switchable) *
Temperature range	-200 °C ... +850 °C
Sensorspeisestrom	< 0.5 mA
Resistor input	0 ... 1 kΩ, 0 ... 4.5 kΩ *

Output:

Output signal	0 ... 20 mA, 4 ... 20 mA, 0 ... 10 V, 2 ... 10 V, 0 ... 5 V, 1 ... 5 V, 0 ... 10 mA, 2 ... 10 mA *
Load impedance	≤ 600 Ω (Out = mA) ≥ 2 kΩ (Out = V)
Step response	180 ms (360 ms at 3-wire)

General specifications:

Voltage supply V_s	24 V DC
Supply voltage range	16.8 V ... 31.2 V
Current consumption at 24 V DC	< 40 mA
Min. measuring span	50 K (50 Ω)
Transmission error	≤ 0.1 % at max. measuring span
Transmission error of set	
measuring span	((10 K / set measuring span [K]) + 0.1) %
Temperature coefficient	≤ 0.02 % /K

Description

JUMPFLEX® transducers, for DIN 35 rail

Item No.

857-801

Pack. Unit

1

Temperature transducer for
Pt 100, Pt 200, Pt 500 und Pt 1000
as well as resistors *

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
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Connection and type of mounting:

Wire connection	CAGE CLAMP® S
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 / 0.37 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 49.2 g

Standards and approvals:

Conformity marking	CE
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
Shipbuilding	Ⓢ

Accessories

see pages 268 ... 271

(* Additional setting options as well as output signal inversion via PC configuration software or smartphone app)

DIP Switch Adjustability

● = ON

857-801

DIP Switch S1

Wire connection		Sensor type			Output signal						Measuring range underflow	Measuring range overflow	Wire break	Short circuit
1	2	3	4	5	6	7	8		9	10				
	2-wire				Pt100			0 ... 20 mA			Lower limit of output range - 5 % *	Upper limit of output range + 2,5 % *	Upper limit of output range + 5 % *	Lower limit of output range - 12,5 % *
●	3-wire	●			Pt200	●		4 ... 20 mA						
	4-wire		●		Pt500		●	0 ... 10 mA	●		Lower limit of output range	Upper limit of output range + 2,5 %	Upper limit of output range + 5 %	Lower limit of output range
			●	●	Pt1000	●	●	2 ... 10 mA						
				●	1 kΩ		●	0 ... 10 V		●	Lower limit of output range	Upper limit of output range	Upper limit of output range + 5 %	Upper limit of output range + 5 %
			●	●	4.5 kΩ	●	●	2 ... 10 V						
							●	0 ... 5 V	●	●	Lower limit of output range	Upper limit of output range	Lower limit of output range	Lower limit of output range
						●	●	1 ... 5 V						

* acc. to NAMUR NE 43

DIP Switch S2

Start temperature						End temperature																															
1	2	3	4	°C	°F	5	6	7	8	9	10	°C	°F	5	6	7	8	9	10	°C	°F	5	6	7	8	9	10	°C	°F	5	6	7	8	9	10	°C	°F
●				-200	-328	●						0	32	●				●		75	167						●	210	410					●	●	475	887
	●			-175	-283		●					5	41		●			●		80	176	●					●	220	428	●				●	●	500	932
●	●			-150	-238	●	●					10	50	●	●			●		85	185		●				●	230	446		●			●	●	525	997
		●		-125	-193			●				15	59			●		●		90	194	●	●				●	240	464	●	●			●	●	550	1022
●		●		-100	-148	●		●				20	68	●		●		●		95	203			●			●	250	482			●		●	●	575	1067
	●	●		-90	-130		●	●				25	77		●	●		●		100	212	●		●			●	260	500	●		●		●	●	600	1022
●	●	●		-80	-112	●	●	●				30	86	●	●	●		●		110	230		●	●			●	270	518		●	●		●	●	625	1112
			●	-70	-94				●			35	95				●	●		120	248	●	●	●			●	280	536	●	●	●		●	●	650	1202
●			●	-60	-76	●			●			40	104	●			●	●		130	266				●		●	290	554				●	●	●	675	1247
	●		●	-50	-58		●		●			45	113		●		●	●		140	284	●			●		●	300	572	●			●	●	●	700	1292
●	●		●	-40	-40	●	●		●			50	122	●	●		●	●		150	302		●		●		●	325	617		●		●	●	●	725	1337
		●	●	-30	-22			●	●			55	131			●	●	●		160	320	●	●		●		●	350	662	●	●		●	●	●	750	1382
●		●	●	-20	-4	●		●	●			60	140	●		●	●	●		170	338			●	●		●	375	707			●	●	●	●	775	1427
	●	●	●	-10	14		●	●	●			65	149		●	●	●	●		180	356	●		●	●		●	400	752	●		●	●	●	●	800	1472
●	●	●	●	0	32	●	●	●	●			70	158	●	●	●	●	●		190	374		●	●	●		●	425	797		●	●	●	●	●	825	1517
●	●	●	●	0	32	●	●	●	●			70	158	●	●	●	●	●		200	392	●	●	●	●		●	450	842	●	●	●	●	●	●	850	1562

The minimum distance from the start temperature to the end temperature may not fall short of 50K degrees on the Celsius (C) scale or 122K degrees on the Fahrenheit (F) scale.

Default Settings

All DIP switches are in „OFF“ position for delivery.
This is the position used to parameterize the device via PC configuration software.

Sensor connection	2-wire
Sensor type	Pt 100
Start temperature	0 °C
End temperature	100 °C
Output signal	0 ... 20 mA
Measuring range underflow	0 mA
Measuring range overflow	20.5 mA
Wire break	21 mA
Short circuit	0 mA