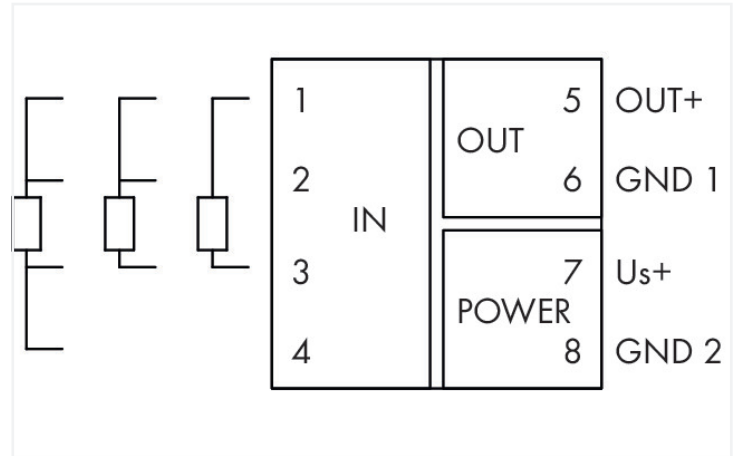
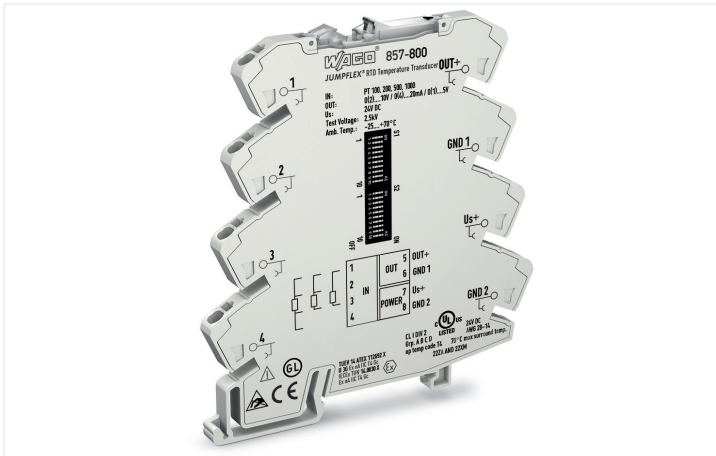


# Data Sheet | Item Number: 857-800

Temperature signal conditioner for RTD sensors; Current and voltage output signal; Configuration via DIP switch; Supply voltage: 24 VDC; 6 mm module width; light gray



<https://www.wago.com/857-800>



Color:  light gray

857-800  
DIP Switch Adjustability

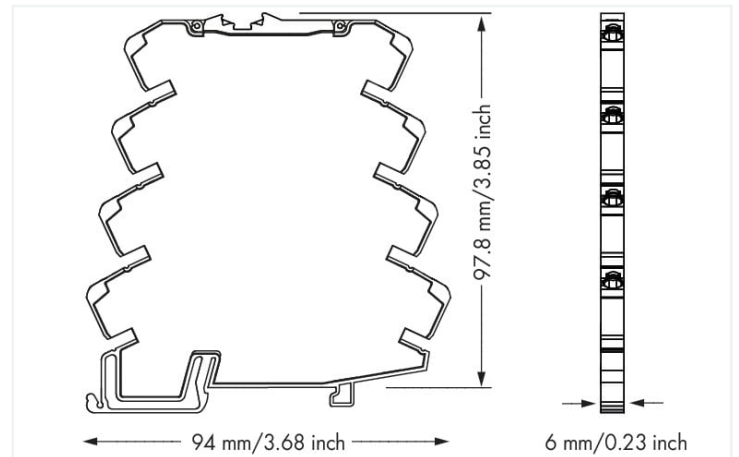
DIP Switch S1

Wire Connection	Sensor Type	Output Signal	Measurement Range Underflow	Measurement Range Overflow	Wire Break	Short Circuit
2 3 4	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 4	Pt200	4...20 mA	Lower limit of output range	Upper limit of output range	Upper limit of output range + 5%	Lower limit of output range
4	Pt500	0...10 mA	Lower limit of output range	Upper limit of output range	Upper limit of output range + 5%	Lower limit of output range
	Pt1000	2...10 mA	Lower limit of output range	Upper limit of output range	Upper limit of output range + 5%	Lower limit of output range
	1 kΩ	0...10 V	Lower limit of output range	Upper limit of output range	Upper limit of output range + 5%	Lower limit of output range
	4.5 kΩ	2...10 V	Lower limit of output range	Upper limit of output range	Upper limit of output range + 5%	Lower limit of output range
		0...5 V	Lower limit of output range	Upper limit of output range	Upper limit of output range + 5%	Lower limit of output range
		1...5 V	Lower limit of output range	Upper limit of output range	Upper limit of output range + 5%	Lower limit of output range

DIP Switch S2

Start Temperature	End Temperature	Start Temperature	End Temperature
1 2 3 4 °C °F	5 6 7 8 °C °F	9 10 °C °F	11 12 °C °F
-200 -328	0 32	75 167	210 410
-175 -283	5 41	80 176	220 428
-150 -238	10 50	85 185	230 446
-125 -193	15 59	90 194	240 464
-100 -148	20 68	95 203	250 482
-75 -103	25 77	100 212	260 500
-50 -58	30 86	110 230	270 518
-25 -13	35 95	120 248	280 536
0 32	40 104	130 266	290 554
25 77	45 113	140 284	300 572
50 122	50 122	150 302	325 617
75 167	55 131	160 320	350 662
100 212	60 140	170 338	375 707
125 257	65 149	180 356	400 752
150 302	70 158	190 374	425 797
175 337		200 392	450 842
200 372			
225 417			
250 462			
275 507			
300 552			
325 597			
350 642			
375 687			
400 732			
425 777			
450 822			
475 867			
500 912			
525 957			
550 1002			
575 1047			
600 1092			
625 1137			
650 1182			
675 1227			
700 1272			
725 1317			
750 1362			
775 1407			
800 1452			
825 1497			
850 1542			

\* acc. to NAMUR NE 43



Dimensions in mm

## Short description:

WAGO's temperature signal conditioner records Pt100, Pt200, Pt500, and Pt1000 sensors, as well as resistors up to 4.5 kOhm, converting the temperature signal into a standard analog signal at the output.

## Features:

- For Pt100, Pt200, Pt500 and Pt1000 sensors, as well as resistors up to 4.5 kOhm
- 2-, 3- and 4-wire connection technology
- Calibrated measurement range switching
- Detects a sensor wire break/short circuit
- Detects measurement range underflow/overflow
- Clipping capability for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

Technical data	
Configuration	DIP switch
Input	Input signal type Pt sensors Resistance

### Input (RTD sensors)

Sensor types (RTD)	Pt100 Pt200 Pt500 Pt1000
Sensor power supply (RTD) max.	≤ 0.5 mA
Temperature measurement range (RTD)	-200 ... 850°C

### Input (resistors)

Input range (resistor)	0 ... 1 kΩ; 0 ... 4.5 kΩ
------------------------	--------------------------

### Output (analog)

Output signal type	Current Voltage
Output signal (voltage)	0 ... 5 V; 1 ... 5 V; 0 ... 10 V; 2 ... 10 V
Output signal (current)	0 ... 10 mA; 2 ... 10 mA; 0 ... 20 mA; 4 ... 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω

### Signal processing

Step response (typ.)	180 ms (2-wire); 360 ms (3-wire)
----------------------	----------------------------------

### Measurement error

Transmission error (typ.)	≤ 0.1 % at full measurement span
Transmission error for the set measurement range	≤ ((10 K/set measurement range [K]) + 0.1) %
Temperature coefficient	≤ 0.02 %/K

### Supply

Power supply type	24 VDC
Nominal supply voltage $U_S$	DC 24 V
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA

### Safety and protection

Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	AC 2.5 kV; 50 Hz; 1 min

### Connection data

Connection technology	Push-in CAGE CLAMP®
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm <sup>2</sup> / 22 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inches

### Physical data

Width	6 mm / 0.236 inches
Height	94 mm / 3.701 inches
Depth from upper-edge of DIN-rail	97.8 mm / 3.85 inches

### Mechanical data

Mounting type	DIN-35 rail
---------------	-------------

### Material data

Color	light gray
Fire load	0.418 MJ
Weight	35.3 g

### Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Relative humidity	5 ... 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

### Standards and specifications

Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DNV

### Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
eCl@ss 10.0	27-21-01-29
eCl@ss 9.0	27-20-02-06
ETIM 8.0	EC002919
ETIM 7.0	EC002919
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4045454470128
Customs tariff number	85437090300

### Environmental Product Compliance

CAS-No.	7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Lead
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	18d0a87d-bb35-4b42-bba2-e1971d4739b1
SCIP notification number (Belgium)	1f2fe9d0-536a-4644-aa00-574d7a086709
SCIP notification number (Bulgaria)	6eb8b90b-e755-4cdf-9d9f-85f513b2f530
SCIP notification number (Czech Republic)	03108352-4dba-454f-a6f1-d4e09f8cc18d
SCIP notification number (Denmark)	26a58e4c-5504-4e78-9b49-eb746565ddd1
SCIP notification number (Finland)	4e48f299-96d8-4f28-9c0f-d3b571642d51
SCIP notification number (France)	13292952-78df-4879-8c6e-21dcd8da9daf
SCIP notification number (Germany)	4f8414b3-3970-470e-8a6d-e6b490c7716a
SCIP notification number (Hungary)	c7c0edf4-0baa-4704-bf79-5e09253a732b
SCIP notification number (Italy)	63af3c96-c94e-457c-94e9-0491f5c3e31f
SCIP notification number (Netherlands)	fe840f60-0242-44fe-9a9d-212ece7599cf
SCIP notification number (Poland)	ea6a54b1-1413-4f99-b8a2-510158b8a5d9
SCIP notification number (Romania)	202d51cb-6c22-4e4c-a67c-2542b8e82bd1
SCIP notification number (Sweden)	95ed46b3-c0f7-472f-987f-304709c7024f

Subject to changes. Please also observe the further product documentation!

---

Current addresses can be found at: [www.wago.com](http://www.wago.com)