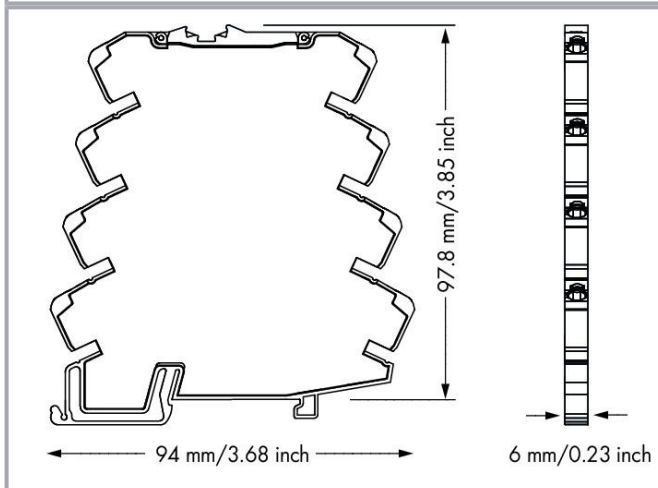
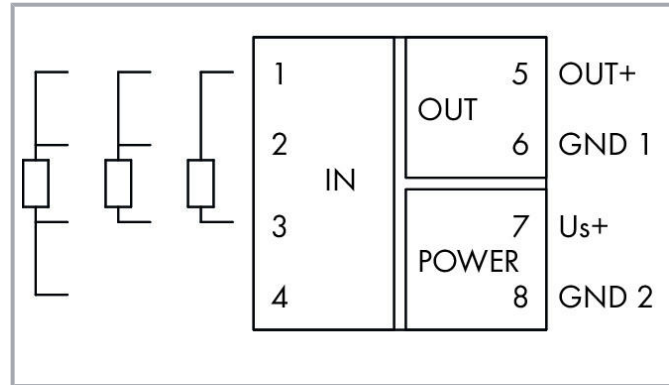
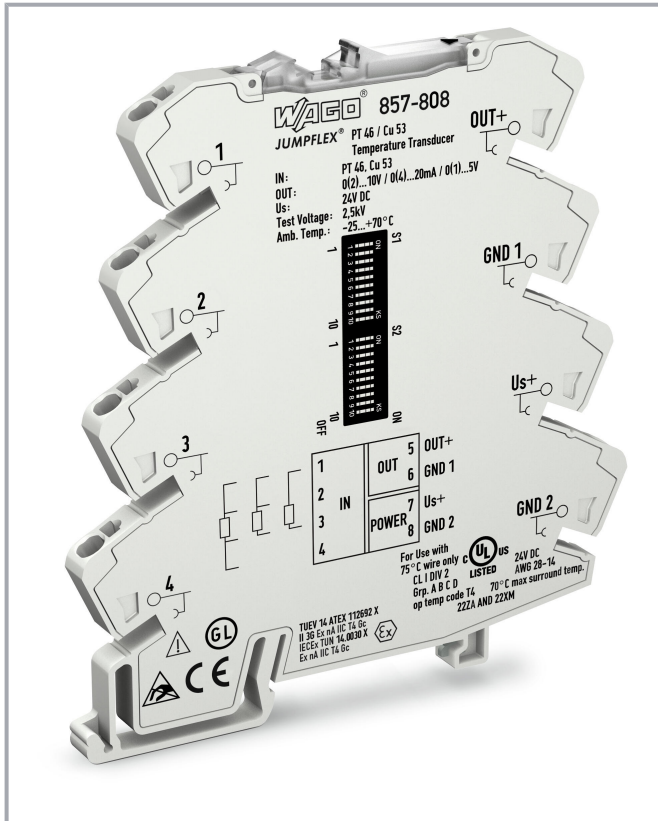


Data sheet | Item number: 857-808

Temperature signal conditioner for RTD sensors; Current and voltage output signal; Supply voltage: 24 VDC; 6 mm module width



www.wago.com/857-808



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

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Phone: +49571 887-0 | Fax: +49571 887-169
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Item description

Short description:

This temperature signal conditioner records signals from Pt46 and Cu53 sensors, converting a temperature signal into a standard analog signal at the output.

Features:

- 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
- Safe 3-way isolation with 2.5 kV test voltage per EN 61140

Data

Technical data

Configuration

Configuration options	DIP switch DIP switch
-----------------------	--------------------------

Input

Input signal type	Pt sensors Cu sensors
-------------------	--------------------------

Input – RTD sensors

Sensor types (RTD)	Pt46 Cu53
Sensor connection	2-wire; 3-wire; 4-wire (switchable)
Sensor power supply (RTD) (max.)	≤ 0.5 mA
Measurement range, temperature (RTD)	-200 ... 300°C (Pt46); 0 ... 180°C (Cu53)
Measurement span (RTD) (min.)	50 K

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

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



Load impedance (voltage output)	$\geq 2 \text{ k}\Omega$
Load impedance (current output)	$\leq 600 \Omega$

Signal processing

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

Transmission error (typ.)	$\leq 0.1 \%$ at full measurement span
Transmission error for the set measurement range	$\leq ((10 \text{ K/set measurement range [K]} + 0.1) \%)$
Temperature coefficient	$\leq 0.02 \%/K$

Supply

Power supply type	24 VDC
Nominal supply voltage U_S	DC 24 V
Supply voltage range	$\pm 30 \%$
Power consumption at nominal supply voltage	$\leq 40 \text{ mA}$

Safety and protection

Protection type	IP20
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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 ² / 28 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch

Physical data

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

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Mechanical data

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

Material data

Weight	35.4 g
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Environmental requirements

Surrounding air temperature (operation)	-25 ... 70 °C
Surrounding air 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

Commercial data

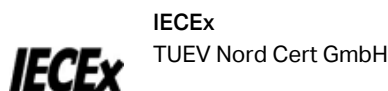
Product Group	6 (Interface Electronics)
PU (SPU)	1 Each
Packaging type	bag
Country of origin	DE
GTIN	4050821468929
Customs tariff number	85437090300

Approvals / Certificates

Ex-Approvals

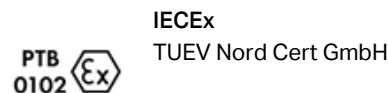
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	EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02.B. 00144/19

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



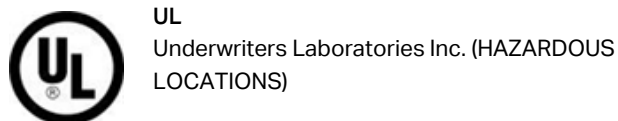
IEC 60079-0

IECEX_TUN_14.0030_X



EN 60079-0

TÜV_14_ATEX_112692_X



ANSI/ISA 12.12.01

E198726

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	BV Bureau Veritas S.A.	Rules for class. of Steel Ships	40179_B0
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAA00001D1
	PRS Polski Rejestr Statków	-	TE/2186 /880590/18

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL UL International Netherlands B.V. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.4

Optional accessories

Tool

Operating tool		
	Item no.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured	www.wago.com/210-720

Terminal blocks

Through terminal block	
------------------------	--

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**Item no.: 857-979**

Supply and through module

www.wago.com/857-979**Interface module**

Interface adapter

**Item no.: 857-980**

Interface adapter; 16-pole; analog

www.wago.com/857-980**Mounting**

Mounting accessories

**Item no.: 249-116**

Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

www.wago.com/249-116**Item no.: 249-117**

Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

www.wago.com/249-117**Item no.: 249-197**

Screwless end stop; 14 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

www.wago.com/249-197**Power supplies**

Power supply

**Item no.: 787-2852**

Switched-mode power supply; 1-phase; 24 VDC output voltage; 1 A output current; -

www.wago.com/787-2852**Jumpers**

Jumper

**Item no.: 859-408**

Jumper; for jumper slot; 8-way; insulated; light gray

www.wago.com/859-408**Item no.: 281-482**

Jumper; insulated; gray

www.wago.com/281-482**Item no.: 859-404/000-005**

Jumper; for jumper slot; 4-way; insulated; red

www.wago.com/859-404/000-005**Item no.: 859-404/000-006**

Jumper; for jumper slot; 4-way; insulated; blue

www.wago.com/859-404/000-006**Item no.: 859-405/000-005**

Jumper; for jumper slot; 5-way; insulated; red

www.wago.com/859-405/000-005

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Item no.: 859-405/000-029
Jumper; for jumper slot; 5-way; insulated; yellow

www.wago.com/859-405/000-029



Item no.: 859-405
Jumper; for jumper slot; 5-way; insulated; light gray

www.wago.com/859-405



Item no.: 859-404/000-029
Jumper; for jumper slot; 4-way; insulated; yellow

www.wago.com/859-404/000-029



Item no.: 859-406
Jumper; for jumper slot; 6-way; insulated; light gray

www.wago.com/859-406



Item no.: 859-405/000-006
Jumper; for jumper slot; 5-way; insulated; blue

www.wago.com/859-405/000-006



Item no.: 859-406/000-005
Jumper; for jumper slot; 6-way; insulated; red

www.wago.com/859-406/000-005



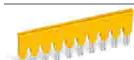
Item no.: 859-409/000-029
Jumper; for jumper slot; 9-way; insulated; yellow

www.wago.com/859-409/000-029



Item no.: 859-410/000-005
Jumper; for jumper slot; 10-way; insulated; red

www.wago.com/859-410/000-005



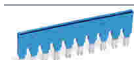
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Jumper; for jumper slot; 10-way; insulated; yellow

www.wago.com/859-410/000-029



Item no.: 859-410
Jumper; for jumper slot; 10-way; insulated; light gray

www.wago.com/859-410



Item no.: 859-410/000-006
Jumper; for jumper slot; 10-way; insulated; blue

www.wago.com/859-410/000-006



Item no.: 859-403/000-005
Jumper; for jumper slot; 3-way; insulated; red

www.wago.com/859-403/000-005



Item no.: 859-402/000-029
Jumper; for jumper slot; 2-way; insulated; yellow

www.wago.com/859-402/000-029



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

	Item no.: 859-403/000-029 Jumper; for jumper slot; 3-way; insulated; yellow	www.wago.com/859-403/000-029
	Item no.: 859-403/000-006 Jumper; for jumper slot; 3-way; insulated; blue	www.wago.com/859-403/000-006
	Item no.: 859-408/000-005 Jumper; for jumper slot; 8-way; insulated; red	www.wago.com/859-408/000-005
	Item no.: 859-408/000-029 Jumper; for jumper slot; 8-way; insulated; yellow	www.wago.com/859-408/000-029
	Item no.: 859-409 Jumper; for jumper slot; 9-way; insulated; light gray	www.wago.com/859-409
	Item no.: 859-408/000-006 Jumper; for jumper slot; 8-way; insulated; blue	www.wago.com/859-408/000-006
	Item no.: 859-403 Jumper; for jumper slot; 3-way; insulated; light gray	www.wago.com/859-403
	Item no.: 859-409/000-005 Jumper; for jumper slot; 9-way; insulated; red	www.wago.com/859-409/000-005
	Item no.: 859-404 Jumper; for jumper slot; 4-way; insulated; light gray	www.wago.com/859-404
	Item no.: 859-409/000-006 Jumper; for jumper slot; 9-way; insulated; blue	www.wago.com/859-409/000-006
	Item no.: 859-402/000-006 Jumper; for jumper slot; 2-way; insulated; blue	www.wago.com/859-402/000-006
	Item no.: 859-402 Jumper; for jumper slot; 2-way; insulated; light gray	www.wago.com/859-402
	Item no.: 859-402/000-005 Jumper; for jumper slot; 2-way; insulated; red	www.wago.com/859-402/000-005
	Item no.: 859-406/000-006 Jumper; for jumper slot; 6-way; insulated; blue	www.wago.com/859-406/000-006

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

**Item no.: 859-406/000-029**

Jumper; for jumper slot; 6-way; insulated; signal yellow

www.wago.com/859-406/000-029**Item no.: 859-407/000-006**

Jumper; for jumper slot; 7-way; insulated; blue

www.wago.com/859-407/000-006**Item no.: 859-407/000-005**

Jumper; for jumper slot; 7-way; insulated; red

www.wago.com/859-407/000-005**Item no.: 859-407/000-029**

Jumper; for jumper slot; 7-way; insulated; yellow

www.wago.com/859-407/000-029**Item no.: 859-407**

Jumper; for jumper slot; 7-way; insulated; light gray

www.wago.com/859-407**Marking accessories**

Marking strip

**Item no.: 2009-110**

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

www.wago.com/2009-110

Marker

**Item no.: 2009-115**

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

www.wago.com/2009-115**Item no.: 793-501**

WMB marking card; as card; not stretchable; plain; snap-on type; white

www.wago.com/793-501**Item no.: 793-502**

WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white

www.wago.com/793-502**Item no.: 793-503**

WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white

www.wago.com/793-503**Item no.: 793-504**

WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white

www.wago.com/793-504**Item no.: 793-505**

WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; white

www.wago.com/793-505**Item no.: 793-506**

WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white

www.wago.com/793-506**Item no.: 793-566**

WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type; white

www.wago.com/793-566

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

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Item no.: 793-5501

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white

www.wago.com/793-5501

Downloads

Documentation

Bid Text

857-808 docx - Datei	2019. 2. 20.	docx 17.8 kB	Download
857-808 X81 - Datei	2019. 2. 19.	xml 5.8 kB	Download

Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 857-808	URL	Download
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CAE data

EPLAN Data Portal 857-808	URL	Download
WSCAD Universe 857-808	URL	Download
ZUKEN Portal 857-808	URL	Download

Environmental Product Compliance

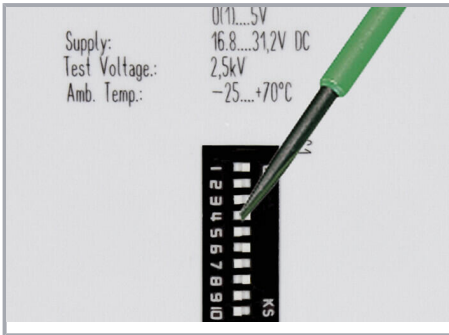
Compliance Search

Environmental Product Compliance 857-808 Temperature signal conditioner for RTD sensors; Current and voltage output signal; Supply voltage: 24 VDC; 6 mm module width	URL	Download
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Subject to changes. Please also observe the further product documentation!

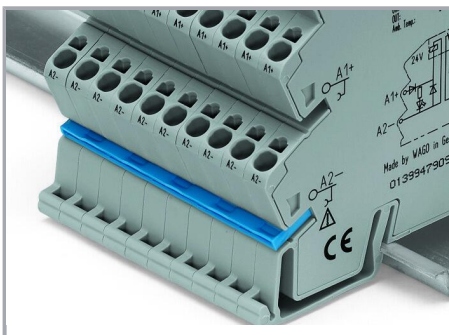
Installation Notes

Configuration



Configuration via DIP switch

Commoning



Commoning, not discrete wiring – Same outline allows use of a single in-line, push-in jumper.

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