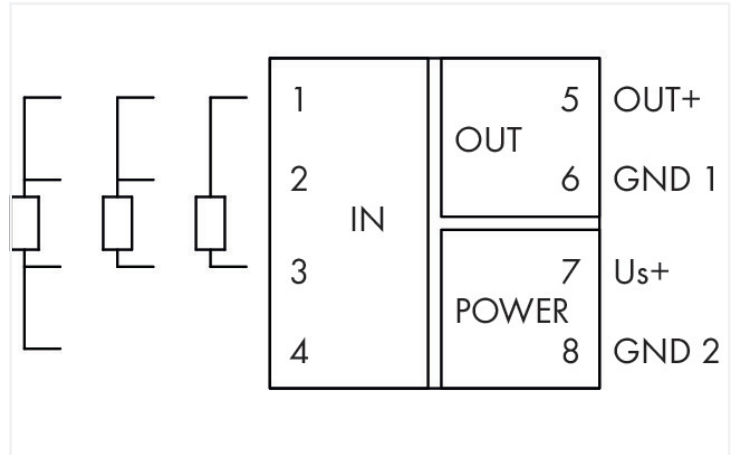
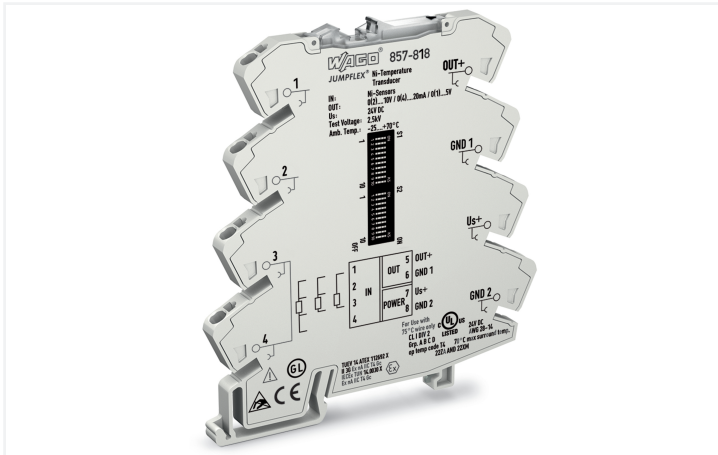


Data Sheet | Item Number: 857-818

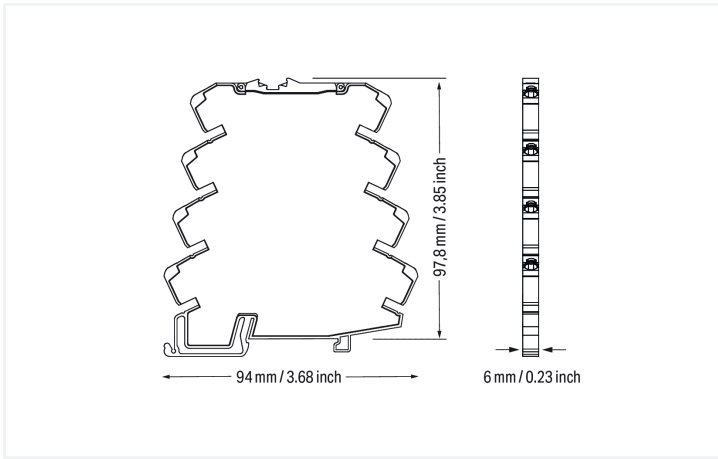
Temperature signal conditioner for Ni sensors; Current and voltage output signal; Configuration via software; Supply voltage: 24 VDC; 6 mm module width; light gray



<https://www.wago.com/857-818>



Color: ■ light gray



857-818
DIP Switch Adjustability

DIP Switch S1

Connection Technology	Temperature Coefficient	Sensor Type
2-wire	5.178 ppm/K	Ni100
3-wire	5000 ppm/K	Ni120
4-wire	6720 ppm/K	Ni200
	6370 ppm/K	Ni500
	6178 ppm/K acc. to DIN 4376	Ni1000

DIP Switch S2

Start Temperature	End Temperature
100	210
110	220
120	230
130	240
140	250
150	260
160	270
170	280
180	290
190	300

DIP Switch S2

Output Signal	Measurement Range Underflow	Measurement Range Overflow	Wire Break	Short Circuit
5...20 mA	Lower limit of output range -5%	Upper limit of output range $+2.5\%$	Upper limit of output range -2.5%	Lower limit of output range $+2.5\%$
4...20 mA	Lower limit of output range	Upper limit of output range $+2.5\%$	Upper limit of output range $+5\%$	Lower limit of output range
0...10 mA	Lower limit of output range	Upper limit of output range $+2.5\%$	Upper limit of output range $+5\%$	Upper limit of output range
2...10 V	Lower limit of output range	Upper limit of output range	Upper limit of output range $+5\%$	Upper limit of output range
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	Lower limit of output range	Upper limit of output range	Lower limit of output range = 0 V or 0 mA	Lower limit of output range

*but not when lower limit of output range = 0 V or 0 mA
**acc. to NAMUR NE 43

Short description:

WAGO's Ni temperature signal conditioner (Ni = nickel) records signals from Ni sensors featuring all standard characteristics and converts the temperature signal into a standard analog signal at the output.

Features:

- For Ni100, Ni120, Ni200; Ni500 and Ni1000 sensors
- Calibrated measurement range switching
- Clipping capability for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

Technical data

Configuration

Configuration options DIP switch

Input

Input signal type Ni sensors
Input voltage (max.) ±31.2 VDC

Input (RTD sensors)

Sensor types (RTD)	Ni100 Ni120 Ni200 Ni500 Ni1000
Sensor connection	2-wire; 3-wire; 4-wire (switchable)

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

Signal Processing

Step response (typ.)	60 ms (2-wire) 120 ms (3-wire) 30 ms (4-wire)
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Measurement Error

Transmission error (typ.)	$\leq 0.1 \%$ of upper-range value
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Power Supply

Power supply type	24 VDC
Nominal supply voltage U_s	24 VDC
Supply voltage range	$\pm 30 \%$
Current 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)	2.5 kVAC; 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 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
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Material data

Color	light gray
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.363 MJ
Weight	33 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)
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4050821099789
Customs tariff number	85437090300

Product Classification

UNSPSC	41111970
eCl@ss 10.0	27-21-01-29
eCl@ss 9.0	27-21-01-20
ETIM 9.0	EC002919
ETIM 10.0	EC002919
ECCN	NO US CLASSIFICATION

Environmental Product Compliance


CAS-No.	1303-86-2 1317-36-8 7439-92-1 75980-60-8 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	118c38f9-b8e5-41c1-9131-8af3ac0fafb3
SCIP notification number (Belgium)	9ebd3eb0-2ad8-46bb-8b1a-580a7f9239b3
SCIP notification number (Bulgaria)	5a1b6bfd-1f83-48fd-ae80-59d8b260abad
SCIP notification number (Czech Republic)	0c552cb9-09e4-4fed-897b-fca44ff0299b
SCIP notification number (Denmark)	11fa4f9c-5a96-4559-a2d8-150dc2292078

Environmental Product Compliance

SCIP notification number (Finland)	4f77b6af-adde-4623-855e-2aafa9e36881
SCIP notification number (France)	aa30642a-2e3f-47a4-b9ed-bde974e48d7c
SCIP notification number (Germany)	30c0623d-92c8-434e-800e-93bd4bb348b0
SCIP notification number (Hungary)	bf8e9b2d-9463-4168-8878-753f768b7379
SCIP notification number (Italy)	752eb549-690f-4a7c-99fe-eb75c38a957b
SCIP notification number (Netherlands)	1a6f0c07-58a7-462b-acd3-0df46b12a99b
SCIP notification number (Poland)	7b8c44d0-329d-4b82-9375-83f912497bdd
SCIP notification number (Romania)	89b18d31-3e59-44a6-9354-8ffa1a6f8ac8
SCIP notification number (Sweden)	7347a19a-1991-47de-ae3a-5813de7f9b89

Approvals / Certificates



General approvals **Declarations of conformity and manufacturer's declarations**



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081



Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Approval	Standard	Certificate Name
BV Bureau Veritas S.A.	Rules for class. of Steel Ships	40179_B0
DNV DNV Germany GmbH	DNV-CG-0339, Aug. 2021	TAA00001D1

Approvals for hazardous areas







Approval	Standard	Certificate Name
CCC CNEX	CNCA-C23-01	2020312310000210 (Ex ec IIC T4 Gc)
IECEx TUEV Nord Cert GmbH	-	IECEx TUN14.0030X
UKEx WAGO GmbH & Co. KG	EN 60079-0	WAGO22UKEX004X
UL Underwriters Laboratories Inc. (HAZARDOUS LOCA- TIONS)	ANSI/ISA 12.12.01	E198726

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product
Compliance 857-818 

Documentation

Bid Text				Instruction Leaflet			
857-818	19.02.2019	xml 5.49 KB		CCC Ex (Additional information)	26.04.2023	pdf 140.99 KB	
857-818	20.02.2019	docx 17.20 KB		Messumformer und Trennverstärker		pdf 1523.50 KB	

CAD/CAE-Data

CAD data	CAE data
2D/3D Models 857-818	EPLAN Data Portal 857-818
	WSCAD Universe 857-818
	ZUKEN Portal 857-818

1 Compatible Products

1.1 Optional Accessories

1.1.1 Installation

1.1.1.1 Mounting accessories



Item No.: 249-117
Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

Item No.: 249-197
Screwless end stop; 14 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

Item No.: 249-116
Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.1.2 Interface module

1.1.2.1 Interface adapters



Item No.: 857-980
Interface adapter; 16-pole; analog

1.1.3 Jumper

1.1.3.1 Jumper



Item No.: 281-482
Jumper; 2-way; insulated; gray

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

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

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
































Item No.: 859-410/000-029
Jumper; for jumper slot; 10-way; insulated; yellow

Item No.: 859-402/000-006
Jumper; for jumper slot; 2-way; insulated; blue

Item No.: 859-402
Jumper; for jumper slot; 2-way; insulated; light gray










Item No.: 859-402/000-005
Jumper; for jumper slot; 2-way; insulated; red

1.1.3.1 Jumper

 <p>Item No.: 859-402/000-029 Jumper; for jumper slot; 2-way; insulated; yellow</p>	 <p>Item No.: 859-403/000-006 Jumper; for jumper slot; 3-way; insulated; blue</p>	 <p>Item No.: 859-403 Jumper; for jumper slot; 3-way; insulated; light gray</p>	 <p>Item No.: 859-403/000-005 Jumper; for jumper slot; 3-way; insulated; red</p>
 <p>Item No.: 859-403/000-029 Jumper; for jumper slot; 3-way; insulated; yellow</p>	 <p>Item No.: 859-404/000-006 Jumper; for jumper slot; 4-way; insulated; blue</p>	 <p>Item No.: 859-404 Jumper; for jumper slot; 4-way; insulated; light gray</p>	 <p>Item No.: 859-404/000-005 Jumper; for jumper slot; 4-way; insulated; red</p>
 <p>Item No.: 859-404/000-029 Jumper; for jumper slot; 4-way; insulated; yellow</p>	 <p>Item No.: 859-405/000-006 Jumper; for jumper slot; 5-way; insulated; blue</p>	 <p>Item No.: 859-405 Jumper; for jumper slot; 5-way; insulated; light gray</p>	 <p>Item No.: 859-405/000-005 Jumper; for jumper slot; 5-way; insulated; red</p>
 <p>Item No.: 859-405/000-029 Jumper; for jumper slot; 5-way; insulated; yellow</p>	 <p>Item No.: 859-406/000-006 Jumper; for jumper slot; 6-way; insulated; blue</p>	 <p>Item No.: 859-406 Jumper; for jumper slot; 6-way; insulated; light gray</p>	 <p>Item No.: 859-406/000-005 Jumper; for jumper slot; 6-way; insulated; red</p>
 <p>Item No.: 859-406/000-029 Jumper; for jumper slot; 6-way; insulated; yellow</p>	 <p>Item No.: 859-407/000-006 Jumper; for jumper slot; 7-way; insulated; blue</p>	 <p>Item No.: 859-407 Jumper; for jumper slot; 7-way; insulated; light gray</p>	 <p>Item No.: 859-407/000-005 Jumper; for jumper slot; 7-way; insulated; red</p>
 <p>Item No.: 859-407/000-029 Jumper; for jumper slot; 7-way; insulated; yellow</p>	 <p>Item No.: 859-408/000-006 Jumper; for jumper slot; 8-way; insulated; blue</p>	 <p>Item No.: 859-408 Jumper; for jumper slot; 8-way; insulated; light gray</p>	 <p>Item No.: 859-408/000-005 Jumper; for jumper slot; 8-way; insulated; red</p>
 <p>Item No.: 859-408/000-029 Jumper; for jumper slot; 8-way; insulated; yellow</p>	 <p>Item No.: 859-409/000-006 Jumper; for jumper slot; 9-way; insulated; blue</p>	 <p>Item No.: 859-409 Jumper; for jumper slot; 9-way; insulated; light gray</p>	 <p>Item No.: 859-409/000-005 Jumper; for jumper slot; 9-way; insulated; red</p>
 <p>Item No.: 859-409/000-029 Jumper; for jumper slot; 9-way; insulated; yellow</p>			

1.1.4 Marking

1.1.4.1 Marker

 <p>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</p>	 <p>Item No.: 793-502 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white</p>	 <p>Item No.: 793-566 WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type; white</p>	 <p>Item No.: 793-503 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white</p>
 <p>Item No.: 793-504 WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white</p>	 <p>Item No.: 793-505 WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; white</p>	 <p>Item No.: 793-506 WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white</p>	 <p>Item No.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white</p>
 <p>Item No.: 2009-115 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white</p>			

1.1.4.2 Marking strip



Item No.: 2009-110

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

1.1.5 Power supply

1.1.5.1 Power Supply



Item No.: 787-2852

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

1.1.6 Terminal blocks

1.1.6.1 Supply module



Item No.: 857-979

Supply and through module

1.1.6.2 Through terminal block



Item No.: 857-979

Supply and through module

1.1.7 Tool

1.1.7.1 Operating tool

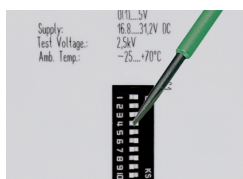


Item No.: 210-720

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

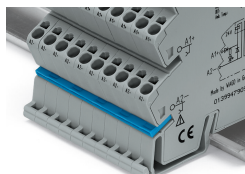
Installation Notes

Configuring



Configuration via DIP switch

Commoning



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