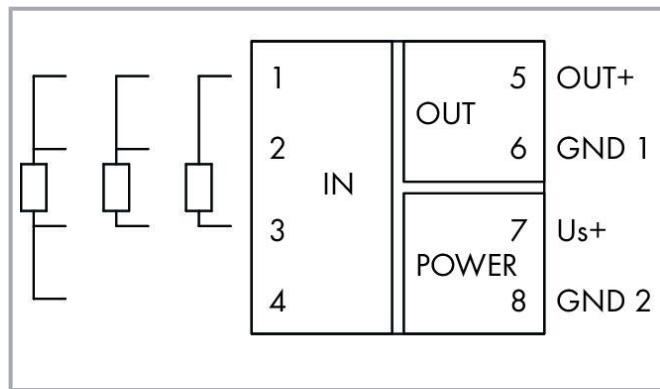
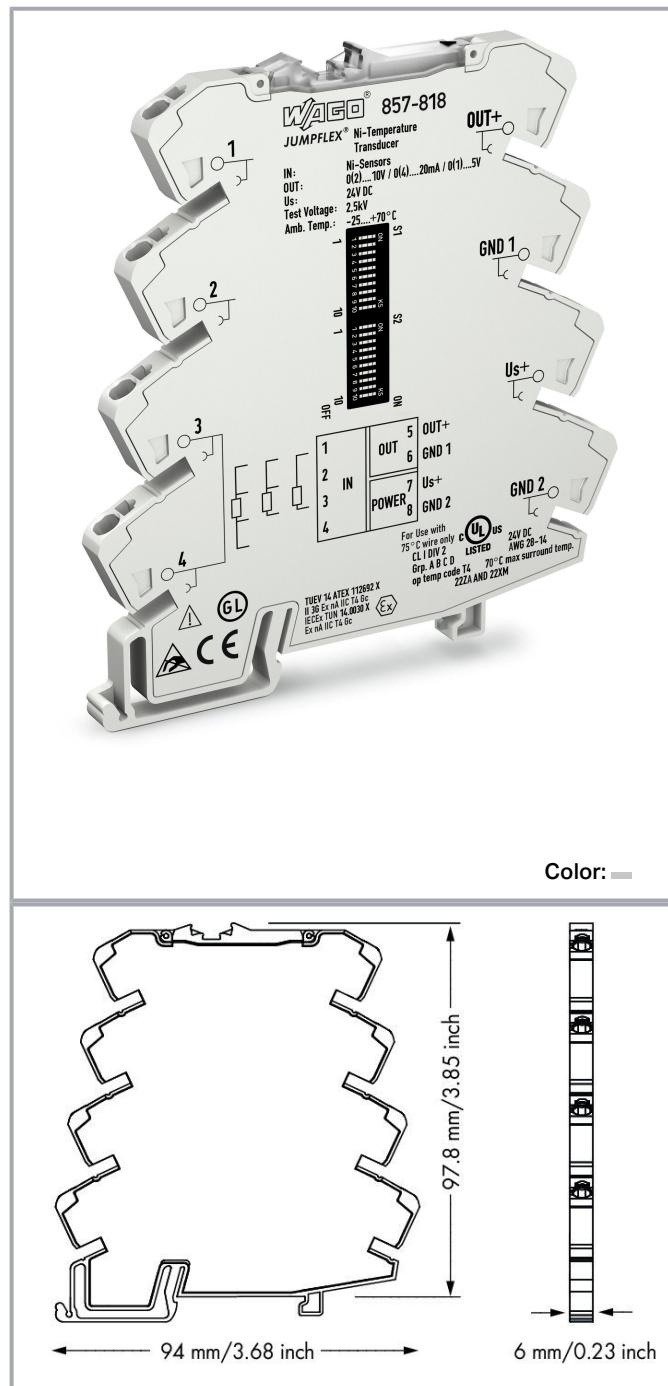


Temperature signal conditioner for Ni sensors; Current and voltage output signal; Configuration via software; Supply voltage: 24 VDC; 6 mm module width; light gray

[www.wago.com/857-818](http://www.wago.com/857-818)



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

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857-818															
DIP Switch Adjustability															
DIP Switch S1															
Connection Technology		Temperature Coefficient			Sensor Type										
1	2	3	4	5	6	7									
•	2-wire	6178 ppm/K <sup>**</sup>			Ni100										
•	3-wire	5000 ppm/K	•		Ni120										
•	4-wire	6720 ppm/K	•	•	Ni200										
		6370 ppm/K	•	•	Ni500										
					Ni1000										
* 6178 ppm/K acc. to DIN 4376															
DIP Switch S2															
Start Temperature										End Temperature					
8	9	10	°C	1	2	3	4	5	T/°C	1	2	3	4	5	T/°C
•	•	•	100	•	•	•	•	•	100	•	•	•	•	•	210
•	•	•	-60	•	0	10	•	•	110	•	•	•	•	•	220
•	•	•	-50	•	•	10	•	•	120	•	•	•	•	•	230
•	•	•	-40	•	•	20	•	•	130	•	•	•	•	•	240
•	•	•	-30	•	•	30	•	•	140	•	•	•	•	•	250
•	•	•	-20	•	•	40	•	•	150	•	•	•	•	•	260
•	•	•	-10	•	•	50	•	•	160	•	•	•	•	•	270
•	•	•	0	•	•	60	•	•	170	•	•	•	•	•	280
•	•	•		•	•	70	•	•	180	•	•	•	•	•	290
•	•	•		•	•	80	•	•	190	•	•	•	•	•	300
•	•	•		•	•	90	•	•	200						
DIP Switch S2															
6	7	8	Output Signal	9	10	Measurement Range Underflow	Measurement Range Overflow	Wire Break	Short Circuit						
•	•	•	0...20 mA	9	10	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 % **						
•	•	•	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 +5 %						
•	•	•	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 %						
•	•	•	2...10 V			Lower limit of output range	Upper limit of output range	Lower limit of output range	Lower 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	Lower limit of output range						

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

## Item description

### 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

## Data

### Technical data

### Configuration

Configuration options	DIP switch
Input signal type	Ni sensors
Input voltage (max.)	±31.2 VDC

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

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## Input (RTD sensors)

Sensor types (RTD)	Ni100 Ni120 Ni200 Ni500 Ni1000
--------------------	--------------------------------------------

## 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)
----------------------	-------------------------------------------------

## Measurement Error

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

## Supply

Power supply type	24 VDC
Nominal supply voltage $U_S$	DC 24 V
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)	AC 2.5 kV; 50 Hz; 1 min
------------------------------------	-------------------------

## Connection data

Connection technology	Push-in CAGE CLAMP®
-----------------------	---------------------

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-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------

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	60.5 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	27-21-01-20
ETIM 8.0	EC002919
ETIM 7.0	EC002919
PU (SPU)	1 pcs

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

Packaging type	bag
Country of origin	DE
GTIN	4050821099789
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	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
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

Logo	Approval	Additional Approval Text	Certificate name
	EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC_Certificate_RU_C- DE.AM02.B.00115_19

### Declarations of conformity and manufacturer's declarations

Certificate

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

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Logo	Approval	Additional Approval Text	name
	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

## Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	BV Bureau Veritas S.A.	Rules for class. of Steel Ships	40179_BO
	DNV DNV Germany GmbH	DNV-CG-0339,Aug.2021	TAA00001D1
	PRS Polski Rejestr Statków	-	TE/2186 /880590/18

## Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TÜV_14_ATEX_112692_X (II 3 G Ex nA IIC T4 Gc)
	CCC CNEX	CNCA-C23-01	2020312310000210 (Ex ec IIC T4 Gc)
	EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02.B. 00144/19 (2 Ex nA IIC T4 Gc X)
	IECEx TUEV Nord Cert GmbH	IEC 60079-0	IECEX_TUN_14.0030_X
	UKEx WAGO GmbH & Co. KG	EN 60079-0	WAGO22UKEX004X

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



**UL**  
Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)

ANSI/ISA 12.12.01

E198726

## Optional accessories

### 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](http://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](http://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](http://www.wago.com/249-197)

### Power supplies

#### Power supply unit

**Item no.: 787-2852**

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

[www.wago.com/787-2852](http://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](http://www.wago.com/859-408)**Item no.: 281-482**

Jumper; 2-way; insulated; gray

[www.wago.com/281-482](http://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](http://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](http://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](http://www.wago.com/859-405/000-005)

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

	<b>Item no.: 859-405/000-029</b> Jumper; for jumper slot; 5-way; insulated; yellow	<a href="http://www.wago.com/859-405/000-029">www.wago.com/859-405/000-029</a>
	<b>Item no.: 859-405</b> Jumper; for jumper slot; 5-way; insulated; light gray	<a href="http://www.wago.com/859-405">www.wago.com/859-405</a>
	<b>Item no.: 859-404/000-029</b> Jumper; for jumper slot; 4-way; insulated; yellow	<a href="http://www.wago.com/859-404/000-029">www.wago.com/859-404/000-029</a>
	<b>Item no.: 859-406</b> Jumper; for jumper slot; 6-way; insulated; light gray	<a href="http://www.wago.com/859-406">www.wago.com/859-406</a>
	<b>Item no.: 859-405/000-006</b> Jumper; for jumper slot; 5-way; insulated; blue	<a href="http://www.wago.com/859-405/000-006">www.wago.com/859-405/000-006</a>
	<b>Item no.: 859-406/000-005</b> Jumper; for jumper slot; 6-way; insulated; red	<a href="http://www.wago.com/859-406/000-005">www.wago.com/859-406/000-005</a>
	<b>Item no.: 859-409/000-029</b> Jumper; for jumper slot; 9-way; insulated; yellow	<a href="http://www.wago.com/859-409/000-029">www.wago.com/859-409/000-029</a>
	<b>Item no.: 859-410/000-005</b> Jumper; for jumper slot; 10-way; insulated; red	<a href="http://www.wago.com/859-410/000-005">www.wago.com/859-410/000-005</a>
	<b>Item no.: 859-410/000-029</b> Jumper; for jumper slot; 10-way; insulated; yellow	<a href="http://www.wago.com/859-410/000-029">www.wago.com/859-410/000-029</a>
	<b>Item no.: 859-410</b> Jumper; for jumper slot; 10-way; insulated; light gray	<a href="http://www.wago.com/859-410">www.wago.com/859-410</a>
	<b>Item no.: 859-410/000-006</b> Jumper; for jumper slot; 10-way; insulated; blue	<a href="http://www.wago.com/859-410/000-006">www.wago.com/859-410/000-006</a>
	<b>Item no.: 859-403/000-005</b> Jumper; for jumper slot; 3-way; insulated; red	<a href="http://www.wago.com/859-403/000-005">www.wago.com/859-403/000-005</a>
	<b>Item no.: 859-402/000-029</b> Jumper; for jumper slot; 2-way; insulated; yellow	<a href="http://www.wago.com/859-402/000-029">www.wago.com/859-402/000-029</a>

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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://www.wago.com/859-406/000-006)

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

	<b>Item no.: 859-406/000-029</b> Jumper; for jumper slot; 6-way; insulated; signal yellow	<a href="http://www.wago.com/859-406/000-029">www.wago.com/859-406/000-029</a>
	<b>Item no.: 859-407/000-006</b> Jumper; for jumper slot; 7-way; insulated; blue	<a href="http://www.wago.com/859-407/000-006">www.wago.com/859-407/000-006</a>
	<b>Item no.: 859-407/000-005</b> Jumper; for jumper slot; 7-way; insulated; red	<a href="http://www.wago.com/859-407/000-005">www.wago.com/859-407/000-005</a>
	<b>Item no.: 859-407/000-029</b> Jumper; for jumper slot; 7-way; insulated; yellow	<a href="http://www.wago.com/859-407/000-029">www.wago.com/859-407/000-029</a>
	<b>Item no.: 859-407</b> Jumper; for jumper slot; 7-way; insulated; light gray	<a href="http://www.wago.com/859-407">www.wago.com/859-407</a>
<b>Tool</b>	Operating tool	
	<b>Item no.: 210-720</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured	<a href="http://www.wago.com/210-720">www.wago.com/210-720</a>
<b>Interface module</b>		
Interface adapters		
	<b>Item no.: 857-980</b> Interface adapter; 16-pole; analog	<a href="http://www.wago.com/857-980">www.wago.com/857-980</a>
<b>Terminal blocks</b>		
Supply module		
	<b>Item no.: 857-979</b> Supply and through module	<a href="http://www.wago.com/857-979">www.wago.com/857-979</a>
<b>Marking accessories</b>		
Marking strip		
	<b>Item no.: 2009-110</b> Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white	<a href="http://www.wago.com/2009-110">www.wago.com/2009-110</a>
Marker		
	<b>Item no.: 2009-115</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	<a href="http://www.wago.com/2009-115">www.wago.com/2009-115</a>
	<b>Item no.: 793-501</b> WMB marking card; as card; not stretchable; plain; snap-on type; white	<a href="http://www.wago.com/793-501">www.wago.com/793-501</a>
	<b>Item no.: 793-502</b> WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type;	<a href="http://www.wago.com/793-502">www.wago.com/793-502</a>

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

white

**Item no.: 793-503**

WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; [www.wago.com/793-503](http://www.wago.com/793-503)  
white

**Item no.: 793-504**

WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; [www.wago.com/793-504](http://www.wago.com/793-504)  
white

**Item no.: 793-505**

WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; [www.wago.com/793-505](http://www.wago.com/793-505)  
white

**Item no.: 793-506**

WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; [www.wago.com/793-506](http://www.wago.com/793-506)  
white

**Item no.: 793-566**

WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type; [www.wago.com/793-566](http://www.wago.com/793-566)  
white

**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 [www.wago.com/793-5501](http://www.wago.com/793-5501)  
type; white

**Downloads****Documentation****Bid Text**

857-818 docx - Datei	2019 Feb 20	docx 17.6 kB	<a href="#">Download</a>
857-818 X81 - Datei	2019 Feb 19	xml 5.6 kB	<a href="#">Download</a>

**Instruction Leaflet**

CCC Ex (Additional information) 857-***	2023 Apr 26	pdf 144.4 kB	<a href="#">Download</a>
Messumformer und Trennverstärker Temperaturmessumformer Ni100, Ni120, Ni200, Ni500, Ni1000 DIP-Schalter		pdf 1.6 MB	<a href="#">Download</a>

**Additional Information**

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 Aug 18	pdf 2.2 MB	<a href="#">Download</a>
-------------------------------------------------------------------------------------	------------------------	---------------	--------------------------

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

## CAD/CAE-Data

### CAD data

2D/3D Models 857-818

URL

Download

### CAE data

EPLAN Data Portal 857-818

URL

Download

WSCAD Universe 857-818

URL

Download

ZUKEN Portal 857-818

URL

Download

## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 857-818

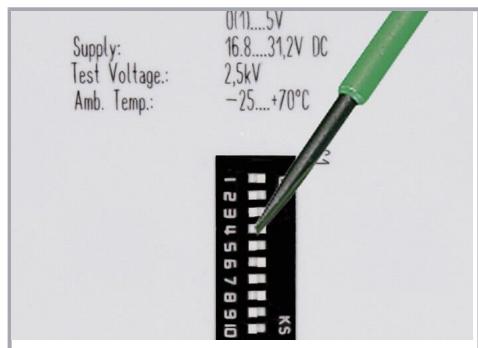
URL

Download

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

## Installation Notes

### Configuring



Configuration via DIP switch

### Commoning

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

WAGO GmbH & Co. KG

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Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.



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!

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