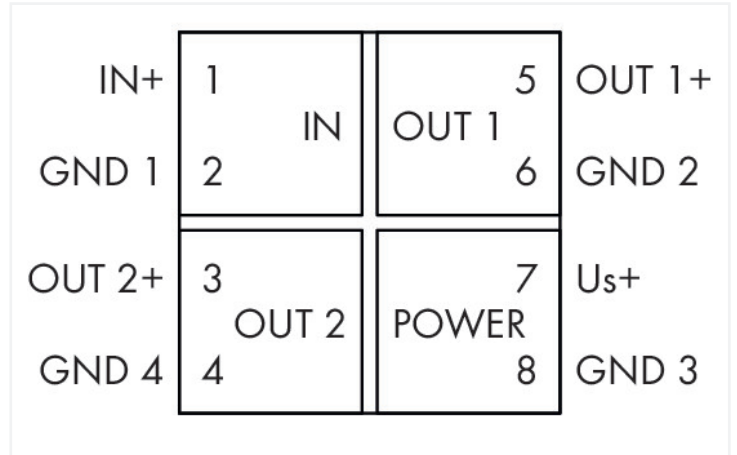
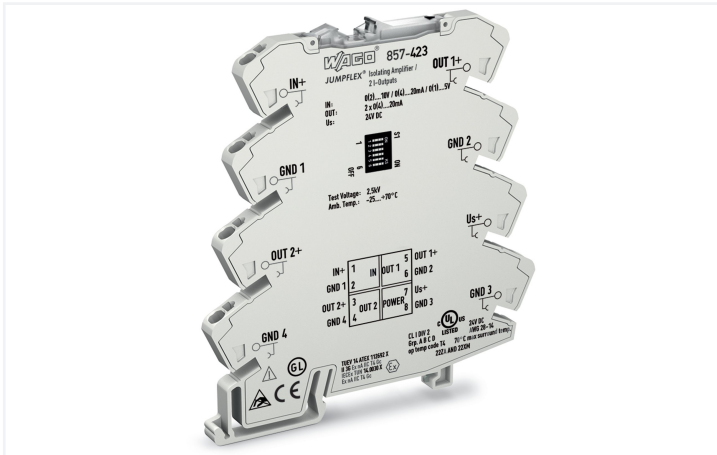


# Data Sheet | Item Number: 857-423

Isolation amplifier; Current and voltage input signal; 2 x current output signal; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm<sup>2</sup>

<https://www.wago.com/857-423>

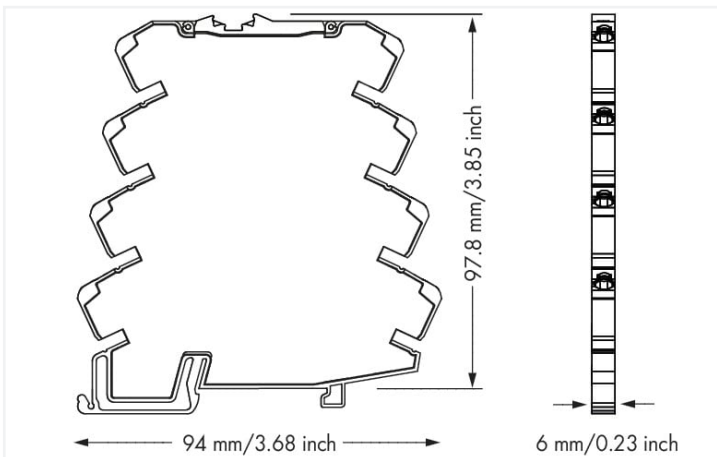
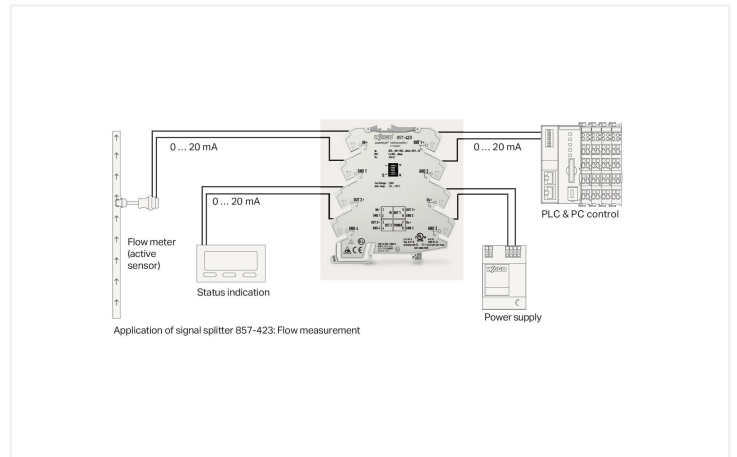


857-423  
DIP Switch Adjustability

= ON  Default

DIP Switch S1 (6-fold)

1	2	3	Input Signal	4	Max. Operating Frequency	5	Output Signal 1	6	Output Signal 2
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0 ... 20 mA	<input checked="" type="checkbox"/>	1 kHz	<input checked="" type="checkbox"/>	0 ... 20 mA	<input checked="" type="checkbox"/>	0 ... 20 mA
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4 ... 20 mA	<input checked="" type="checkbox"/>	100 Hz	<input checked="" type="checkbox"/>	4 ... 20 mA	<input checked="" type="checkbox"/>	4 ... 20 mA
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0 ... 10 V	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2 ... 10 V	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0 ... 5 V	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1 ... 5 V	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



Dimensions in mm

## Short description:

WAGO's signal splitter converts, amplifies, filters and electrically isolates standard analog signals. **Features:**

- Two configurable current outputs
- Calibrated measurement range switching
- Switchable limit frequency

## Notes

Note	<b>Use shielded signal lines!</b> Only use shielded signal lines for analog input and output signals. Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.
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## Technical data

## Configuration

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

## Input

Input signal type	Voltage Current
Input signal (voltage)	0 ... 5 V; 1 ... 5 V; 0 ... 10 V; 2 ... 10 V (calibrated, switchable)
Input signal (current)	0 ... 20 mA; 4 ... 20 mA (calibrated, switchable)
Input resistance (current input)	≤ 50 Ω
Input resistance (voltage input)	≥ 100 kΩ

## Output (analog)

Output signal type	Current
Output signal (current)	0 ... 20 mA; 4 ... 20 mA (calibrated switching)
Load impedance (current output)	≤ 300 Ω per channel

## Signal processing

Limit frequency	100 Hz / 1 kHz (configurable via DIP switch)
Step response (typ.)	3.5 ms (100 Hz); 300 μs (1 kHz)

## Measurement error

Transmission error (typ.)	≤ 0.1 % of upper-range value
Transmission error (max.)	≤ 0.2 % of upper-range value
Transmission error (under interference)	≤ 10 %
Temperature coefficient	≤ 0.01 %/K

## Power supply

Power supply type	24 VDC
Nominal supply voltage $U_S$	DC 24 V
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 35 mA

## Safety and protection

Rated Voltage	300 V
Protection type	IP20

## Test voltage

Test voltage (input/output/supply)	AC 3 kV; 50 Hz; 1 min
------------------------------------	-----------------------

## Insulation coordination (UL)

Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output 1/ analog output 2/supply)	Reinforced insulation (safe isolation)

## Insulation coordination

Overvoltage category	II
Pollution degree	2

## 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
Cable type	Shielded cable

### 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

Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.363 MJ
Weight	40.6 g

### Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Processing temperature	-25 ... +50 °C
Temperature range of connection cable	$\geq (T_{\text{ambient}} + 10 \text{ K})$
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	27-21-01-20
eCl@ss 9.0	27-21-01-20
ETIM 9.0	EC002653
ETIM 8.0	EC002653
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4045454471316
Customs tariff number	85437090300

### Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 7439-92-1 75980-60-8
REACH Candidate List Substance	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

### Environmental Product Compliance

SCIP notification number (Austria)	f3bd2dd6-8897-4727-8817-eb8fa4f61833
SCIP notification number (Belgium)	6461991f-6733-4ab1-96d8-363c4c0ad2d1
SCIP notification number (Bulgaria)	0909499e-b080-4fb2-838b-98acad664bd1
SCIP notification number (Czech Republic)	9cb4d383-a36c-4264-be61-624a74c1699b
SCIP notification number (Denmark)	3e5537a9-59e8-4490-96fc-80cc1df749cf
SCIP notification number (Finland)	77584296-15bf-4327-bfa4-a92bdb8232ef
SCIP notification number (France)	a3a6bac3-78ac-411b-a7ae-18317cb7da7a
SCIP notification number (Germany)	1aac8de7-6254-4741-923d-9ee0f0d08019
SCIP notification number (Hungary)	0529448d-a98e-4ab8-8359-594effec587a
SCIP notification number (Italy)	52b6c194-a8eb-4660-9154-c8c6e3105cfe
SCIP notification number (Netherlands)	49bf022e-ca61-4f49-9ce1-2614f036ad4d
SCIP notification number (Poland)	85edb9a3-3ac3-4dab-b3a5-499070b23c99
SCIP notification number (Romania)	5acb356f-906f-48b0-84d7-748ba0bfdc2e
SCIP notification number (Sweden)	ac6b507e-39a6-4f8d-9254-a4f1bb9e7bfc

### Approvals / Certificates

#### General approvals



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.4

#### Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity 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
PRS Polski Rejestr Statków	-	TE/1098/880590/23

#### Approvals for hazardous areas



Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV14ATEX112692X (II 3G Ex ec IIC T4 Gc)
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 LOCATIONS)	ANSI/ISA 12.12.01	E198726

**Downloads**

**Environmental Product Compliance**

Compliance Search			
Environmental Product Compliance 857-423			↓

**Documentation**

Bid Text			
857-423	19.02.2019	xml 5.04 KB	↓
857-423	20.02.2019	docx 16.46 KB	↓

Instruction Leaflet			
CCC Ex (Additional information)	26.04.2023	pdf 140.99 KB	↓
Messumformer und Trennverstärker		pdf 1754.72 KB	↓

**CAD/CAE-Data**

CAD data	
2D/3D Models 857-423	↓

CAE data	
EPLAN Data Portal 857-423	↓
WSCAD Universe 857-423	↓
ZUKEN Portal 857-423	↓

**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



[Item No.: 859-402/000-029](#)

Jumper; for jumper slot; 2-way; insulated; yellow



[Item No.: 859-403/000-006](#)

Jumper; for jumper slot; 3-way; insulated; blue

[Item No.: 859-403](#)

Jumper; for jumper slot; 3-way; insulated; light gray

[Item No.: 859-403/000-005](#)

Jumper; for jumper slot; 3-way; insulated; red



[Item No.: 859-403/000-029](#)

Jumper; for jumper slot; 3-way; insulated; yellow



[Item No.: 859-404/000-006](#)

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

[Item No.: 859-404](#)

Jumper; for jumper slot; 4-way; insulated; light gray

[Item No.: 859-404/000-005](#)

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



[Item No.: 859-404/000-029](#)

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



[Item No.: 859-405/000-006](#)

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

[Item No.: 859-405](#)

Jumper; for jumper slot; 5-way; insulated; light gray

[Item No.: 859-405/000-005](#)

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



[Item No.: 859-405/000-029](#)

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



[Item No.: 859-406/000-006](#)

Jumper; for jumper slot; 6-way; insulated; blue

[Item No.: 859-406](#)

Jumper; for jumper slot; 6-way; insulated; light gray

[Item No.: 859-406/000-005](#)

Jumper; for jumper slot; 6-way; insulated; red



[Item No.: 859-406/000-029](#)

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



[Item No.: 859-407/000-006](#)

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

[Item No.: 859-407](#)

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

[Item No.: 859-407/000-005](#)

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



[Item No.: 859-407/000-029](#)

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



[Item No.: 859-408/000-006](#)

Jumper; for jumper slot; 8-way; insulated; blue

[Item No.: 859-408](#)

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

[Item No.: 859-408/000-005](#)

Jumper; for jumper slot; 8-way; insulated; red



[Item No.: 859-408/000-029](#)

Jumper; for jumper slot; 8-way; insulated; yellow



[Item No.: 859-409/000-006](#)

Jumper; for jumper slot; 9-way; insulated; blue

[Item No.: 859-409](#)

Jumper; for jumper slot; 9-way; insulated; light gray

[Item No.: 859-409/000-005](#)

Jumper; for jumper slot; 9-way; insulated; red



[Item No.: 859-409/000-029](#)

Jumper; for jumper slot; 9-way; insulated; yellow

1.1.4 Marking

1.1.4.1 Marker



**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



**Item No.: 793-502**

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



**Item No.: 793-566**

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



**Item No.: 793-503**

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



**Item No.: 793-504**

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



**Item No.: 793-505**

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



**Item No.: 793-506**

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



**Item No.: 793-501**

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



**Item No.: 2009-115**

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

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

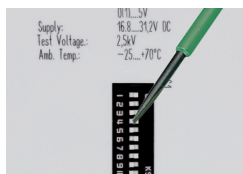


#### Item No.: 210-720

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

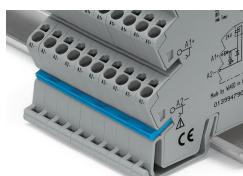
## Installation Notes

### Configuring



Configuration via DIP switch

### Commoning



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