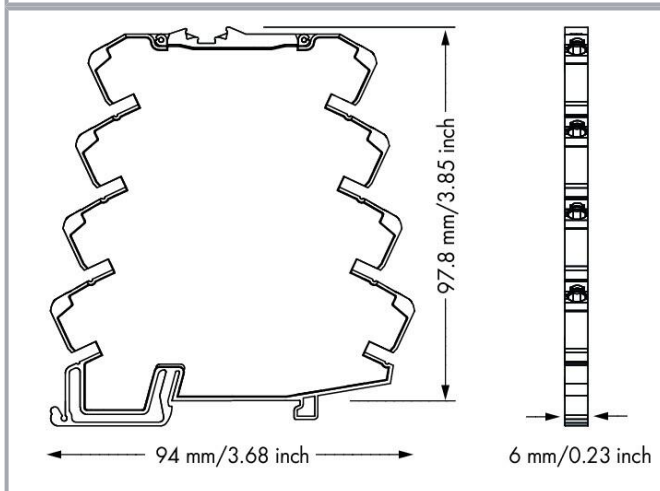
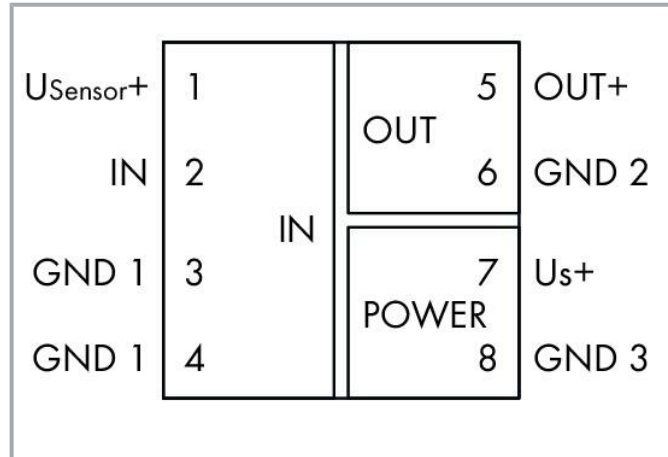
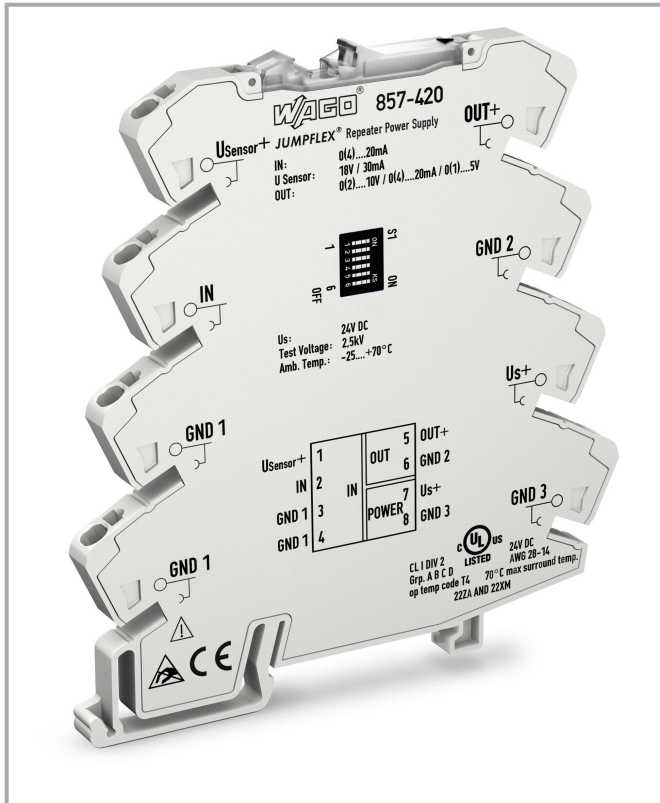


Data sheet | Item number: 857-420

Isolation amplifier; Current input signal; Current and voltage output signal;
Supply voltage: 24 VDC; 6 mm module width; 2,50 mm²



www.wago.com/857-420



857-420
DIP Switch Adjustability

•• ON Default

DIP Switch S1 (6-fold)							
1	2	3	4	5	6	Input Signal	Output Signal
						n.c.	0...20 mA
					•	n.c.	4...20 mA
				•		n.c.	0...10 V
			•			n.c.	2...10 V
		•				n.c.	0...5 V
		•	•			n.c.	1...5 V
		•	•	•		n.c.	0...20 mA
		•	•	•	•	n.c.	4...20 mA
		•	•	•	•	n.c.	0...10 V
		•	•	•	•	n.c.	2...10 V
		•	•	•	•	n.c.	0...5 V
		•	•	•	•	n.c.	1...5 V

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

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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.

Item description

Short description:

WAGO's isolation amplifier provides the power required for 2- or 3-wire field transmitters and electrically isolates analog signals.

Features:

- Power supply to SMART transmitters
- Calibrated measurement range switching
- Safe 3-way isolation with 2.5 kV test voltage per EN 61140

Data

Technical data

Configuration

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

Input

Input signal type	Current
Input signal (current)	0 ... 20 mA; 4 ... 20 mA (calibrated switching)
Input resistance (current input)	$\leq 50 \Omega$
Sensor supply	$U_V = 18 \text{ V}; 30 \text{ mA}$
Input current (max.)	50 mA

Output (analog)

Output signal type	Current Voltage
Output signal (voltage)	0 ... 5 V; 1 ... 5 V; 0 ... 10 V; 2 ... 10 V (calibrated switching)
Output signal (current)	0 ... 20 mA; 4 ... 20 mA (calibrated switching)
Load impedance (voltage output)	$\geq 2 \text{ k}\Omega$
Load impedance (current output)	$\leq 600 \Omega$
Offset	$\leq 20 \mu\text{A}$
Residual ripple	$\leq 10 \text{ mV (rms)}$

Signal Processing

Limit frequency	100 Hz
Step response (typ.)	3.5 ms

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



Measurement Error

Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/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	≤ 45 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 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
---------------	-------------

Material Data

Fire load	0.598 MJ
Weight	37 g

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



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
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 8.0	EC002653
ETIM 7.0	EC002653
PU (SPU)	1 pcs
Packaging type	bag
Country of origin	DE
GTIN	4045454471330
Customs tariff number	85437090300

Environmental Product Compliance

CAS-No.	7439-92-1
REACH Candidate List Substance	Lead
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	ce64656d-412b-4516-98df-5ed8de7a42d7
SCIP notification number (Belgium)	4c90b0c1-78ad-4ba4-b535-0af67a1f8320
SCIP notification number (Bulgaria)	732775ad-c71a-4423-a43d-c02e179eee1a
SCIP notification number (Czech Republic)	4c11b42c-d2cb-4953-99d2-5593704fc922
SCIP notification number (Denmark)	c2235d56-3d67-4d70-bd3b-788ab942f897
SCIP notification number (Finland)	746ee700-ccb7-472f-aa8a-e5213a150ca4
SCIP notification number (France)	ba5998fc-93e1-477b-b378-1aa4cb09e5b0

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SCIP notification number (Germany)	b822bbec-8555-4354-a97a-7f2f11cfcfda
SCIP notification number (Hungary)	e76638ca-8dcd-4e9b-b157-a001fc9a899e
SCIP notification number (Italy)	5aee997a-84ed-415e-801b-059d52d4e2aa
SCIP notification number (Netherlands)	efe4d42d-5e98-4989-a0a5-981a102c7dae
SCIP notification number (Poland)	c097994e-a837-4b27-888d-21cf581fdf5d
SCIP notification number (Romania)	9d1a17e5-d0d4-4b39-af60-df178c8617ae
SCIP notification number (Sweden)	0bb3c17a-5974-424b-928f-467e5f350d41

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

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

Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	DNV DNV Germany GmbH	DNV-CG-0339, Aug. 2021	TAA00001D1

Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	ANSI/ISA 12.12.01	E198726

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Optional accessories

Terminal blocks

Supply module



Item no.: 857-979

Supply and through module

www.wago.com/857-979

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

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

Interface module

Interface adapters



Item no.: 857-980

Interface adapter; 16-pole; analog

www.wago.com/857-980

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; 2-way; 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

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

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Item no.: 859-405/000-005
Jumper; for jumper slot; 5-way; insulated; red

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



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



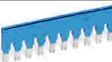
Item no.: 859-410/000-029
Jumper; for jumper slot; 10-way; insulated; yellow

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



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

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

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



Item no.: 859-406/000-006
Jumper; for jumper slot; 6-way; insulated; blue

www.wago.com/859-406/000-006



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

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

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

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

	WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; 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 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 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 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 type; white www.wago.com/793-5501

Downloads

Documentation

Bid Text

857-420 docx - Datei	2019 Feb 20	docx 17.1 kB	Download
857-420 X81 - Datei	2019 Feb 19	xml 5.5 kB	Download

Instruction Leaflet

Messumformer und Trennverstärker Speisetrenner, konfigurierbar Strom und Spannungsausgang		pdf 1.4 MB	Download
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Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 Aug 18	pdf 2.2 MB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 857-420		URL	Download
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CAE data

EPLAN Data Portal 857-420

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

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	URL	Download
ZUKEN Portal 857-420	URL	Download
WSCAD Universe 857-420	URL	Download

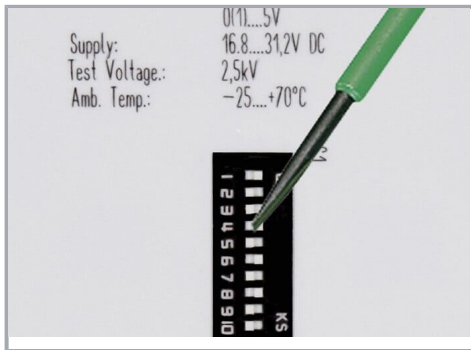
Environmental Product Compliance

Compliance Search

Environmental Product Compliance 857-420	URL	Download
Isolation amplifier; Current input signal; Current and voltage output signal; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm ²		

Installation Notes

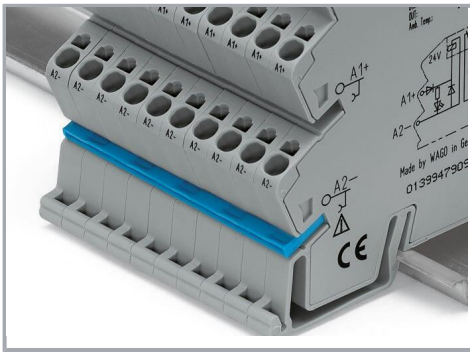
Configuring



Configuration via DIP switch

Commoning

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



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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