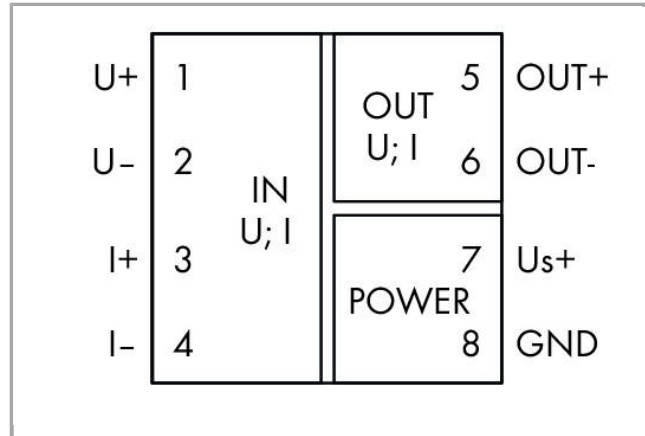
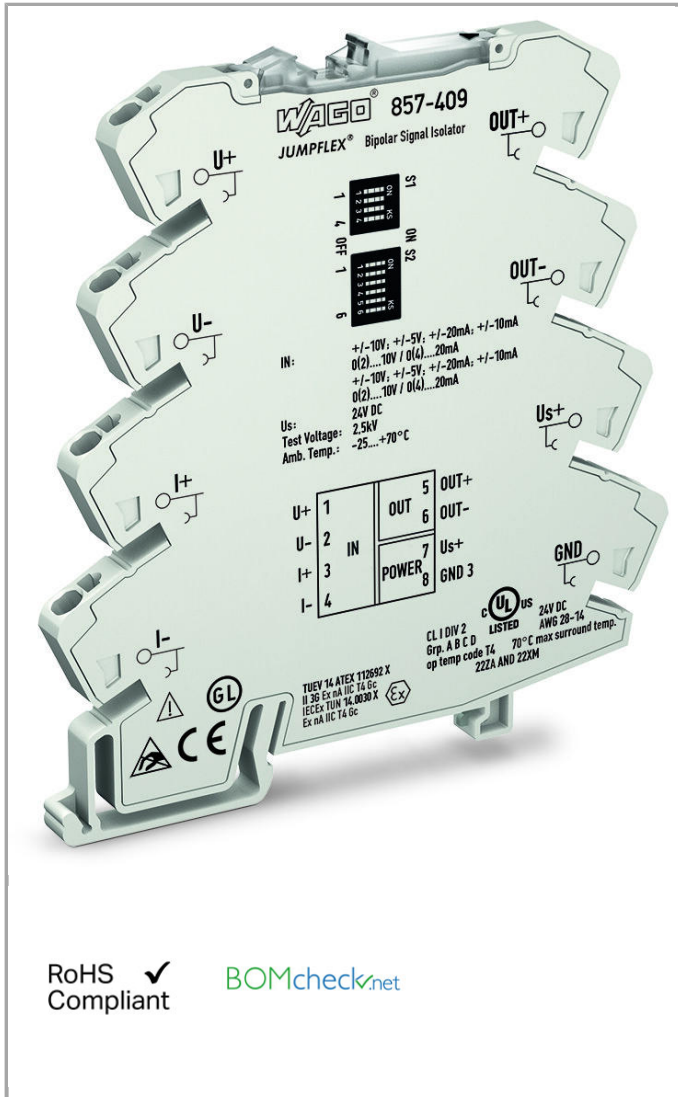


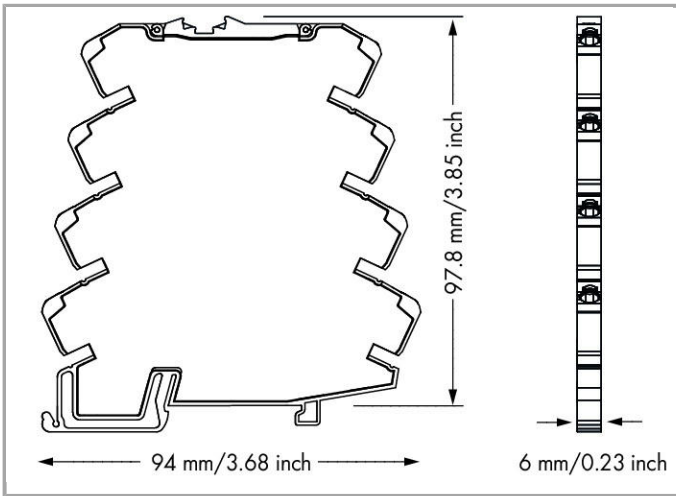
Data sheet | Item number: 857-409

Isolation amplifier; Bipolar current and voltage input signal; Bipolar current and voltage output signal; Zero/span adjustment; Configuration via DIP switch; Supply voltage: 24 VDC; 6 mm module width



www.wago.com/857-409





857-409
DIP Switch Adjustability

• = ON Default

DIP Switch S1 (4-fold)				DIP Switch S2 (6-fold)			Max. Operating Frequency				
1	2	3	4	1	2	3		4	5	6	
•										±20 mA	5 kHz
•	•									±10 mA	100 Hz
•	•	•			•	•	•			±10 V	
•	•	•	•		•	•	•	•		±5 V	
	•									0...20 mA	
	•									4...20 mA	
	•									0...10 mA	
	•									2...10 mA	
	•									0...10 V	
	•									2...10 V	
	•									0...5 V	
	•									1...5 V	

Item description

Short description:

The bipolar isolation amplifier converts analog, unipolar and bipolar, standard signals. It is also designed to amplify, filter and electrically isolate standard analog signals.

Features:

- Input overcurrent protection via resettable fuse
- Zero/span adjustment across the entire measuring range
- Switching between measuring ranges is calibrated
- Analog, unipolar and bipolar, standard signals at input/output
- Switchable max. operating frequency

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

Data

Technical Data

Configuration

Configuration options

DIP switches

Input

Input signal type	Voltage Current
Input signal voltage	± 5 V; 0 ... 5 V; 1 ... 5 V
Input signal, current	±10 mA; 0 ... 10 mA; 2 ... 10 mA
Input resistance (input/voltage)	1 MΩ (approx.)
Max. input current	50 mA
Max. input voltage	32 V

Zero/span adjustment	± 5 % of the full scale value
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Output

Output signal type	Current Voltage
Output signal voltage	±5 V; 0 ... 5 V; 1 ... 5 V; ±10 V; 0 ... 10 V; 2 ... 10 V
Output signal current	±10 mA; 0 ... 10 mA; 2 ... 10 mA; ±20 mA; 0 ... 20 mA; 4 ... 20 mA
Load impedance (output/voltage)	≥ 2 kΩ
Load impedance (output/current)	≤ 600 Ω
Residual ripple	≤ 10 mV (rms)

Signal processing

Max. operating frequency	100 Hz / 5 kHz (configurable via DIP switch)
Step response typ.	3.5 ms (100 Hz); 60.000000000000005 μs (5 kHz)

Measurement error

Transmission error typ.	≤ 0.1 % of upper range value
Temperature coefficient	≤ 0.01 %/K

Power supply

Type of power supply	24 VDC
Nominal supply voltage U_S	DC 24 V
Supply voltage range	±30 %
Current consumption at supply voltage	≤ 25 mA

Safety and protection:

Test voltage (input/output/supply)	AC 2.5 kV; 50 Hz; 1 min
Protection class	IP20

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

Geometrical Data

Width	6 mm / 0.236 inch
Height from upper-edge of DIN-35 rail	97.8 mm / 3.85 inch
Depth	94 mm / 3.701 inch

Mechanical data

Type of mounting	DIN-35 rail
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Material Data

Color	light gray
Fire load	0.598 MJ
Weight	38.4 g

Environmental Requirements

Surrounding air (operating) temperature	-25 ... 70 °C
Surrounding air (storage) temperature	-40 ... 85 °C

Standards and specifications


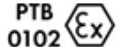
Conformity marking	1
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3

Commercial data

Product Group	6 (Interface Electronics)
Country of origin	DE
GTIN	4045454828493
Customs Tariff No.	85437090300

Approvals / Certificates

Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	IECEX TUEV Nord Cert GmbH	IEC 60079-0	IECEX_TUN_14.0030_X
	IECEX TUEV Nord Cert GmbH	EN 60079-0	TÜV_14_ATEX_112692_X

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	BV Bureau Veritas S.A.	-	40179_A0

BUREAU
VERITAS**DNV GL**

Det Norske Veritas, Germanischer Lloyd

-


TAA00001D1

**PRS**

Polski Rejestr Statków

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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

Compatible products**General accessories****Item no.: 857-979**

Supply and through module

www.wago.com/857-979**power supply****Item no.: 787-2852**

Switched-mode power supply; for JUMPFLEX® Signal Conditioners; 1-phase; 24 VDC output voltage; 1 A output current

www.wago.com/787-2852**assembling****Item no.: 249-116**

Screwless end stop; 6 mm wide

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

Screwless end stop; 10 mm wide












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

Screwless end stop; 14 mm wide

www.wago.com/249-197**Marking accessories****Item no.: 2009-110**

Marking strips; on reel; not stretchable; plain; snap-on type

www.wago.com/2009-110

	<p>Item no.: 2009-115 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	www.wago.com/2009-115
	<p>Item no.: 2009-115/000-002 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	www.wago.com/2009-115/000-002
	<p>Item no.: 2009-115/000-006 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	www.wago.com/2009-115/000-006
	<p>Item no.: 2009-115/000-007 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	www.wago.com/2009-115/000-007
	<p>Item no.: 2009-115/000-012 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	www.wago.com/2009-115/000-012
	<p>Item no.: 2009-115/000-017 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	www.wago.com/2009-115/000-017
	<p>Item no.: 2009-115/000-023 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	www.wago.com/2009-115/000-023
	<p>Item no.: 2009-115/000-024 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	www.wago.com/2009-115/000-024
	<p>Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type</p>	www.wago.com/793-501
	<p>Item no.: 793-501/000-002 WMB marking card; as card; not stretchable; plain; snap-on type</p>	www.wago.com/793-501/000-002
	<p>Item no.: 793-501/000-005 WMB marking card; as card; not stretchable; plain; snap-on type</p>	www.wago.com/793-501/000-005
	<p>Item no.: 793-501/000-006 WMB marking card; as card; not stretchable; plain; snap-on type</p>	www.wago.com/793-501/000-006
	<p>Item no.: 793-501/000-007 WMB marking card; as card; not stretchable; plain; snap-on type</p>	www.wago.com/793-501/000-007
	<p>Item no.: 793-501/000-012 WMB marking card; as card; not stretchable; plain; snap-on type</p>	www.wago.com/793-501/000-012
	<p>Item no.: 793-501/000-017 WMB marking card; as card; not stretchable; plain; snap-on type</p>	www.wago.com/793-501/000-017



Item no.: 793-501/000-023
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-023



Item no.: 793-501/000-024
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-024



Item no.: 793-502
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-502



Item no.: 793-502/000-002
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-502/000-002



Item no.: 793-502/000-005
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-502/000-005



Item no.: 793-502/000-006
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-502/000-006



Item no.: 793-502/000-007
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-502/000-007



Item no.: 793-502/000-012
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-502/000-012



Item no.: 793-502/000-017
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-502/000-017



Item no.: 793-502/000-023
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-502/000-023



Item no.: 793-502/000-024
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-502/000-024



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



Item no.: 793-503/000-002
WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-503/000-002



Item no.: 793-503/000-005
WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-503/000-005



Item no.: 793-503/000-006
WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-503/000-006

**Item no.: 793-503/000-007**WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type www.wago.com/793-503/000-007**Item no.: 793-503/000-012**WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type www.wago.com/793-503/000-012**Item no.: 793-503/000-017**WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type www.wago.com/793-503/000-017**Item no.: 793-503/000-023**WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type www.wago.com/793-503/000-023**Item no.: 793-503/000-024**WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type www.wago.com/793-503/000-024**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**Item no.: 793-504/000-002**WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type www.wago.com/793-504/000-002**Item no.: 793-504/000-005**WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type www.wago.com/793-504/000-005**Item no.: 793-504/000-006**WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type www.wago.com/793-504/000-006**Item no.: 793-504/000-012**WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type www.wago.com/793-504/000-012**Item no.: 793-504/000-017**WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type www.wago.com/793-504/000-017**Item no.: 793-504/000-023**WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type www.wago.com/793-504/000-023**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**Item no.: 793-505/000-005**WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type www.wago.com/793-505/000-005**Item no.: 793-505/000-006**WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type www.wago.com/793-505/000-006

**Item no.: 793-505/000-007**

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

www.wago.com/793-505

/000-007

**Item no.: 793-505/000-012**

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

www.wago.com/793-505

/000-012

**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**Item no.: 793-506/000-005**

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

www.wago.com/793-506

/000-005

**Item no.: 793-506/000-006**

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

www.wago.com/793-506

/000-006

**Item no.: 793-506/000-012**

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

www.wago.com/793-506

/000-012

**Item no.: 793-506/000-017**

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

www.wago.com/793-506

/000-017

**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

www.wago.com/793-5501**Item no.: 793-5501/000-002**

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

www.wago.com/793-5501

/000-002

**Item no.: 793-5501/000-005**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501

/000-005

**Item no.: 793-5501/000-006**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501

/000-006

**Item no.: 793-5501/000-007**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501

/000-007

**Item no.: 793-5501/000-012**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501

/000-012

**Item no.: 793-5501/000-014**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501

/000-014

**Item no.: 793-5501/000-017**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501

/000-017



Item no.: 793-5501/000-023
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-023



Item no.: 793-5501/000-024
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-024



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



Item no.: 793-566/000-002
WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-566/000-002



Item no.: 793-566/000-005
WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-566/000-005



Item no.: 793-566/000-006
WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-566/000-006



Item no.: 793-566/000-007
WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-566/000-007



Item no.: 793-566/000-012
WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-566/000-012



Item no.: 793-566/000-017
WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-566/000-017



Item no.: 793-566/000-023
WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-566/000-023



Item no.: 793-566/000-024
WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type

www.wago.com/793-566/000-024

transfer module

Item no.: 857-980
JUMPFLEX® adapter; with 16-pole flat cable connector per DIN 41651; analog

www.wago.com/857-980

tools

Item no.: 210-720
Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm

www.wago.com/210-720
















Jumper
















Item no.: 281-482
Comb-style jumper bar; insulated; 2-way; IN = IN terminal block

www.wago.com/281-482

Item no.: 859-402
Push-in type jumper bar; 2-way; Nominal current 18 A; insulated

www.wago.com/859-402

	<p>Item no.: 859-402/000-005 Push-in type jumper bar; 2-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-402/000-005</p>
	<p>Item no.: 859-402/000-006 Push-in type jumper bar; 2-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-402/000-006</p>
	<p>Item no.: 859-402/000-029 Push-in type jumper bar; 2-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-402/000-029</p>
	<p>Item no.: 859-403 Push-in type jumper bar; 3-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-403</p>
	<p>Item no.: 859-403/000-005 Push-in type jumper bar; 3-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-403/000-005</p>
	<p>Item no.: 859-403/000-006 Push-in type jumper bar; 3-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-403/000-006</p>
	<p>Item no.: 859-403/000-029 Push-in type jumper bar; 3-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-403/000-029</p>
	<p>Item no.: 859-404 Push-in type jumper bar; 4-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-404</p>
	<p>Item no.: 859-404/000-005 Push-in type jumper bar; 4-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-404/000-005</p>
	<p>Item no.: 859-404/000-006 Push-in type jumper bar; 4-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-404/000-006</p>
	<p>Item no.: 859-404/000-029 Push-in type jumper bar; 4-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-404/000-029</p>
	<p>Item no.: 859-405 Push-in type jumper bar; 5-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-405</p>
	<p>Item no.: 859-405/000-005 Push-in type jumper bar; 5-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-405/000-005</p>
	<p>Item no.: 859-405/000-006 Push-in type jumper bar; 5-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-405/000-006</p>
	<p>Item no.: 859-405/000-029 Push-in type jumper bar; 5-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-405/000-029</p>
	<p>Item no.: 859-406 Push-in type jumper bar; 6-way; Nominal current 18 A; insulated</p>	<p>www.wago.com/859-406</p>

	Item no.: 859-406/000-005 Push-in type jumper bar; 6-way; Nominal current 18 A; insulated	www.wago.com/859-406/000-005
	Item no.: 859-406/000-006 Push-in type jumper bar; 6-way; Nominal current 18 A; insulated	www.wago.com/859-406/000-006
	Item no.: 859-406/000-029 Push-in type jumper bar; 6-way; Nominal current 18 A; insulated	www.wago.com/859-406/000-029
	Item no.: 859-407 Push-in type jumper bar; 7-way; Nominal current 18 A; insulated	www.wago.com/859-407
	Item no.: 859-407/000-005 Push-in type jumper bar; 7-way; Nominal current 18 A; insulated	www.wago.com/859-407/000-005
	Item no.: 859-407/000-006 Push-in type jumper bar; 7-way; Nominal current 18 A; insulated	www.wago.com/859-407/000-006
	Item no.: 859-407/000-029 Push-in type jumper bar; 7-way; Nominal current 18 A; insulated	www.wago.com/859-407/000-029
	Item no.: 859-408 Push-in type jumper bar; 8-way; Nominal current 18 A; insulated	www.wago.com/859-408
	Item no.: 859-408/000-005 Push-in type jumper bar; 8-way; Nominal current 18 A; insulated	www.wago.com/859-408/000-005
	Item no.: 859-408/000-006 Push-in type jumper bar; 8-way; Nominal current 18 A; insulated	www.wago.com/859-408/000-006
	Item no.: 859-408/000-029 Push-in type jumper bar; 8-way; Nominal current 18 A; insulated	www.wago.com/859-408/000-029
	Item no.: 859-409 Push-in type jumper bar; 9-way; Nominal current 18 A; insulated	www.wago.com/859-409
	Item no.: 859-409/000-005 Push-in type jumper bar; 9-way; Nominal current 18 A; insulated	www.wago.com/859-409/000-005
	Item no.: 859-409/000-006 Push-in type jumper bar; 9-way; Nominal current 18 A; insulated	www.wago.com/859-409/000-006
	Item no.: 859-409/000-029 Push-in type jumper bar; 9-way; Nominal current 18 A; insulated	www.wago.com/859-409/000-029



Item no.: 859-410
Push-in type jumper bar; 10-way; Nominal current 18 A; insulated

www.wago.com/859-410



Item no.: 859-410/000-005
Push-in type jumper bar; 10-way; Nominal current 18 A; insulated

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



Item no.: 859-410/000-006
Push-in type jumper bar; 10-way; Nominal current 18 A; insulated

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



Item no.: 859-410/000-029
Push-in type jumper bar; 10-way; Nominal current 18 A; insulated

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

Downloads

Documentation

Instruction Leaflet

Signal Conditioners and Isolating Amps Bipolar isolation amplifier Configurable	13-oct-2010	pdf 1.9 MB	Download
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Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0 10-oct-2018	pdf 265.8 kB	Download
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CAD/CAE - Smart Data

CAD data

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Subject to changes.