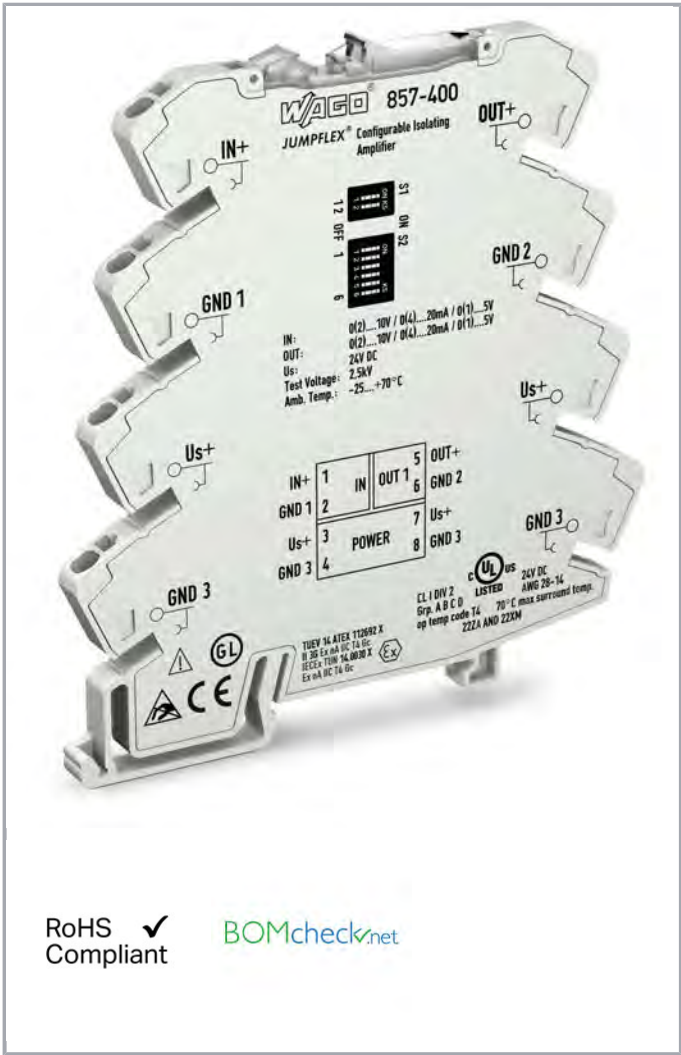


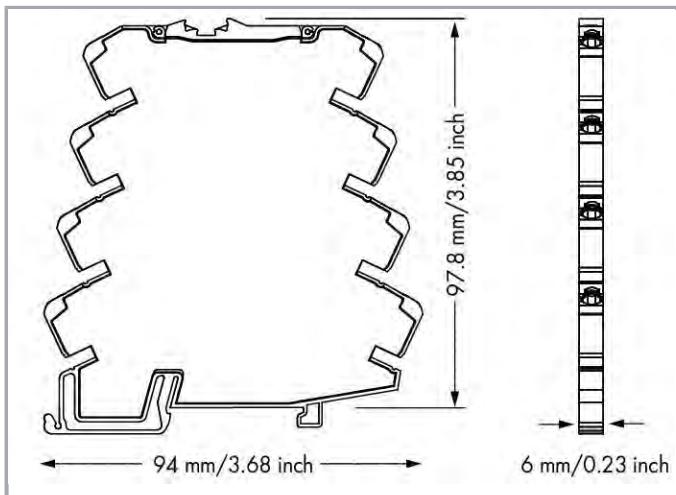
Data sheet | Item number: 857-400

Isolation amplifier; Current and voltage input signal; Current and voltage output signal; Zero/span adjustment; Configuration via DIP switch; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm²



IN+	1	IN	5	OUT+
GND 1	2		6	GND 2
Us+	3	POWER	7	Us+
GND 3	4		8	GND 3

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



B17-400
DIP Switch Adjustability

• ON Default

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

Item description

Short description:

This configurable signal conditioner converts, amplifies, filters and electrically isolates standard analog signals.

Features:

- Zero/span adjustment across the entire measurement range
- Calibrated measurement range switching
- Switchable limit frequency
- Safe 3-way isolation with 2.5 kV test voltage per EN 61140

Note:

Die Anschlüsse 3 (Us+) und 7 (Us+) sowie 4 (GND 3) und 8 (GND 3) sind intern gebrückt.
Stromtragfähigkeit zwischen Anschluss 3/4 und 7/8 max: 1 A

Data

Technical Data

Configuration

Configuration options

DIP switch

Input

Input signal type

Voltage

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

	Electricity
Input signal (voltage)	0 ... 5 V; 1 ... 5 V; 0 ... 10 V; 2 ... 10 V (calibrated switching)
Input signal (current)	0 ... 20 mA; 4 ... 20 mA (calibrated switching)
Input resistance (current input)	$\leq 50 \Omega$
Input resistance (voltage input)	$\geq 100 \text{ k}\Omega$
Input current (max.)	50 mA
Input voltage (max.)	30 V
Zero/span adjustment	$\pm 3\%$ of upper-range value

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 ... 20 mA; 4 ... 20 mA; 0 ... 10 mA; 2 ... 10 mA (calibrated switching)
Load impedance (voltage output)	$\geq 2 \text{ k}\Omega$
Load impedance (current output)	$\leq 600 \Omega$

Signal processing

Limit frequency	100 Hz / 5 kHz (configurable via DIP switch)
Step response (typ.)	3,5 ms (100 Hz); 100 μ s (5 kHz)

Measurement error

Transmission error (typ.)	$\leq 0.1\%$ of upper-range value
Temperature coefficient	$\leq 0.01\%$ /K

Power supply

Power supply type	24 VDC
Nominal supply voltage U_S	DC 24 V
Supply voltage range	$\pm 30\%$
Power consumption at nominal supply voltage	$\leq 25 \text{ mA}$

Safety and protection:

Test voltage (input/output/supply)	AC 2,5 kV; 50 Hz; 1 min
Protection type	IP20

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



Connection data

Connection technology	Push-in CAGE CLAMP®
Solid conductor	0,08 ... 2,5 mm² / 28 ... 14 AWG
Fine-stranded conductor	0,34 ... 2,5 mm² / 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-rail	97,8 mm / 3.85 inch
Depth	94 mm / 3.701 inch

Mechanical data

Mounting type	DIN-35 rail
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Material Data

Fire load	0.585 MJ
Weight	36.8 g

Environmental Requirements

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

Standards and specifications

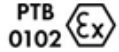
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4

Commercial data

Product Group	6 (Interface Electronics)
Packaging type	bag
Country of origin	DE
GTIN	4045454471293
Customs tariff number	85437090300

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

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
	UL UL International Germany GmbH (HAZARDOUS LOCATIONS)	ANSI/ISA 12.12.01	E198726 Sec.4

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAA00001D1
	NK Nippon Kaiji Kyokai	-	TA17255M
	PRS Polski Rejestr Statków	-	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

Counterpart

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

Compatible products

tools



Item no.: 210-720

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

transfer module



Item no.: 857-980

Interface adapter; 16-pole; analog

Marking accessories



Item no.: 2009-110

Marking strips; on reel; 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



Item no.: 2009-115/000-002

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



Item no.: 2009-115/000-006

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



Item no.: 2009-115/000-007

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



Item no.: 2009-115/000-012

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



Item no.: 2009-115/000-017

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



Item no.: 2009-115/000-023

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



Item no.: 2009-115/000-024

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

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


Item no.: 793-501

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


Item no.: 793-501/000-002

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


Item no.: 793-501/000-005

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


Item no.: 793-501/000-006

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


Item no.: 793-501/000-007

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


Item no.: 793-501/000-012

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


Item no.: 793-501/000-017

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


Item no.: 793-501/000-023

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


Item no.: 793-501/000-024

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


Item no.: 793-502

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


Item no.: 793-502/000-002

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


Item no.: 793-502/000-005

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


Item no.: 793-502/000-006

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


Item no.: 793-502/000-007

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

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


Item no.: 793-502/000-012

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


Item no.: 793-502/000-017

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


Item no.: 793-502/000-023

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


Item no.: 793-502/000-024

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


Item no.: 793-503

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


Item no.: 793-503/000-002

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


Item no.: 793-503/000-005

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


Item no.: 793-503/000-006

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


Item no.: 793-503/000-007

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


Item no.: 793-503/000-012

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


Item no.: 793-503/000-017

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


Item no.: 793-503/000-023

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


Item no.: 793-503/000-024

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

Item no.: 793-504

Subject to changes.



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



Item no.: 793-504/000-002

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



Item no.: 793-504/000-005

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



Item no.: 793-504/000-006

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



Item no.: 793-504/000-012

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



Item no.: 793-504/000-017

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



Item no.: 793-504/000-023

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



Item no.: 793-505

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



Item no.: 793-505/000-005

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



Item no.: 793-505/000-006

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



Item no.: 793-505/000-007

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



Item no.: 793-505/000-012

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



Item no.: 793-506

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



Item no.: 793-506/000-005

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

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



Item no.: 793-506/000-006

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



Item no.: 793-506/000-012

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



Item no.: 793-506/000-017

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



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.: 793-5501/000-002

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



Item no.: 793-5501/000-005

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



Item no.: 793-5501/000-006

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



Item no.: 793-5501/000-007

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



Item no.: 793-5501/000-012

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



Item no.: 793-5501/000-014

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



Item no.: 793-5501/000-017

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



Item no.: 793-5501/000-023

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



Item no.: 793-5501/000-024

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

Item no.: 793-566

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

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



white



Item no.: 793-566/000-002

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



Item no.: 793-566/000-005

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



Item no.: 793-566/000-006

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



Item no.: 793-566/000-007

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



Item no.: 793-566/000-012

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



Item no.: 793-566/000-017

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



Item no.: 793-566/000-023

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



Item no.: 793-566/000-024

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

assembling



Item no.: 249-116

Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray



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

Jumper



Item no.: 281-482

Comb-style jumper bar; insulated; 2-way; IN = IN terminal block; gray



Item no.: 859-402

Push-in type jumper bar; 2-way; Nominal current 18 A; insulated; light gray

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



Item no.: 859-402/000-005

Push-in type jumper bar; 2-way; Nominal current 18 A; insulated; red



Item no.: 859-402/000-006

Push-in type jumper bar; 2-way; Nominal current 18 A; insulated; blue



Item no.: 859-402/000-029

Push-in type jumper bar; 2-way; Nominal current 18 A; insulated; yellow



Item no.: 859-403

Push-in type jumper bar; 3-way; Nominal current 18 A; insulated; light gray



Item no.: 859-403/000-005

Push-in type jumper bar; 3-way; Nominal current 18 A; insulated; red



Item no.: 859-403/000-006

Push-in type jumper bar; 3-way; Nominal current 18 A; insulated; blue



Item no.: 859-403/000-029

Push-in type jumper bar; 3-way; Nominal current 18 A; insulated; yellow



Item no.: 859-404

Push-in type jumper bar; 4-way; Nominal current 18 A; insulated; light gray



Item no.: 859-404/000-005

Push-in type jumper bar; 4-way; Nominal current 18 A; insulated; red



Item no.: 859-404/000-006

Push-in type jumper bar; 4-way; Nominal current 18 A; insulated; blue



Item no.: 859-404/000-029

Push-in type jumper bar; 4-way; Nominal current 18 A; insulated; yellow



Item no.: 859-405

Push-in type jumper bar; 5-way; Nominal current 18 A; insulated; light gray



Item no.: 859-405/000-005

Push-in type jumper bar; 5-way; Nominal current 18 A; insulated; red



Item no.: 859-405/000-006

Push-in type jumper bar; 5-way; Nominal current 18 A; insulated; blue

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



Item no.: 859-405/000-029

Push-in type jumper bar; 5-way; Nominal current 18 A; insulated; yellow



Item no.: 859-406

Push-in type jumper bar; 6-way; Nominal current 18 A; insulated; light gray



Item no.: 859-406/000-005

Push-in type jumper bar; 6-way; Nominal current 18 A; insulated; red



Item no.: 859-406/000-006

Push-in type jumper bar; 6-way; Nominal current 18 A; insulated; blue



Item no.: 859-406/000-029

Push-in type jumper bar; 6-way; Nominal current 18 A; insulated; yellow



Item no.: 859-407

Push-in type jumper bar; 7-way; Nominal current 18 A; insulated; light gray



Item no.: 859-407/000-005

Push-in type jumper bar; 7-way; Nominal current 18 A; insulated; red



Item no.: 859-407/000-006

Push-in type jumper bar; 7-way; Nominal current 18 A; insulated; blue



Item no.: 859-407/000-029

Push-in type jumper bar; 7-way; Nominal current 18 A; insulated; yellow



Item no.: 859-408

Push-in type jumper bar; 8-way; Nominal current 18 A; insulated; light gray



Item no.: 859-408/000-005

Push-in type jumper bar; 8-way; Nominal current 18 A; insulated; red



Item no.: 859-408/000-006

Push-in type jumper bar; 8-way; Nominal current 18 A; insulated; blue



Item no.: 859-408/000-029

Push-in type jumper bar; 8-way; Nominal current 18 A; insulated; yellow



Item no.: 859-409

Push-in type jumper bar; 9-way; Nominal current 18 A; insulated; light gray

Item no.: 859-409/000-005

Push-in type jumper bar; 9-way; Nominal current 18 A; insulated; red

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



Item no.: 859-409/000-006
Push-in type jumper bar; 9-way; Nominal current 18 A; insulated; blue



Item no.: 859-409/000-029
Push-in type jumper bar; 9-way; Nominal current 18 A; insulated; yellow



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



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



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



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

power supply



Item no.: 787-2852
Switched-mode power supply; for JUMPFLEX® Signal Conditioners; 1-phase; 24 VDC output voltage; 1 A output current; -

General accessories



Item no.: 857-979
Supply and through module; 2,50 mm²

Downloads

Documentation

Instruction Leaflet

Messumformer und Trennverstärker
Konfigurierbar, mit Zero-/ Span-Abgleich

V 1.2.1
Jan 21, 2020

Additional Information

Disposal; Electrical and electronic equipment, Packaging

V 1.0.0

CAD/CAE-Data

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

CAD data

2D/3D Models 857-400

CAE data

EPLAN Data Portal 857-400

WSCAD Universe 857-400

Installation Notes

Configuring



Configuration via DIP switches

Commoning



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

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