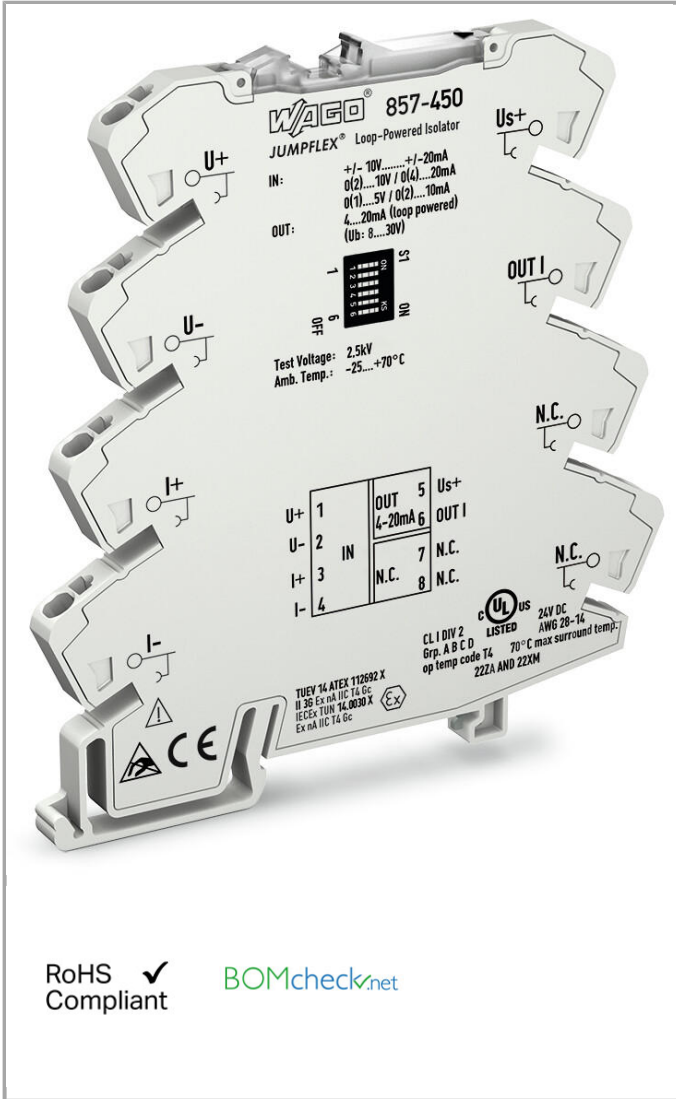


Data sheet | Item number: 857-450

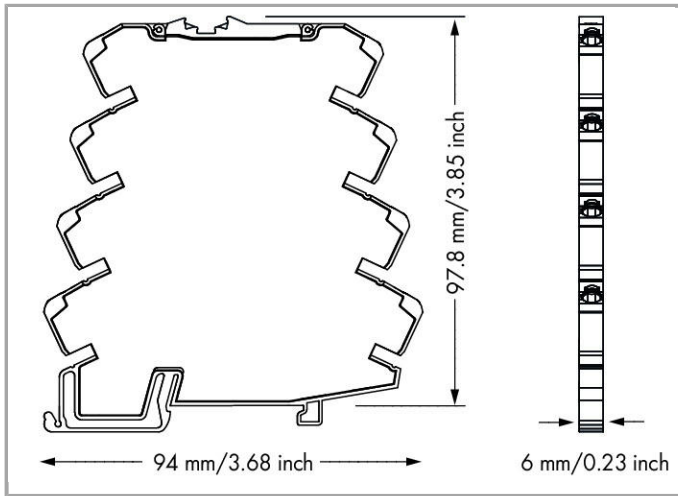
Loop-powered isolation amplifier; Bipolar current and voltage input signal;
Current output signal; Configuration via DIP switch; Power via input; 6 mm
module width



857-450



U+	1	IN U, I	OUT 5	Us+	
U-	2		4-20mA	OUT 1	
I+	3		N.C.	7	N.C.
I-	4		N.C.	8	N.C.



857-450
DIP Switch Adjustability

• = ON Default

DIP switch (6 positions)

1	2	3	4	5	Input Signal	Output Signal	Max. Operating Frequency							
•	•	•	•	•	4...20 mA	4...20 mA	100 Hz							
•	•	•	•	0...20 mA	4...20 mA		50 Hz							
•	•	•	•	±20 mA			4...20 mA							
•	•	•	•	2...10 mA				4...20 mA						
•	•	•	•	0...10 mA					4...20 mA					
•	•	•	•	±10 mA						4...20 mA				
•	•	•	•	0...5 mA							4...20 mA			
•	•	•	•	±5 mA								4...20 mA		
•	•	•	•	0...20 V									4...20 mA	
•	•	•	•	±20 V										4...20 mA
•	•	•	•	2...10 V		4...20 mA								
•	•	•	•	0...10 V	4...20 mA									
•	•	•	•	±10 V			4...20 mA							
•	•	•	•	1...5 V				4...20 mA						
•	•	•	•	0...5 V					4...20 mA					
•	•	•	•	±5 V						4...20 mA				
•	•	•	•	0...2 V							4...20 mA			
•	•	•	•	±2 V								4...20 mA		
•	•	•	•	0...1 V									4...20 mA	
•	•	•	•	±1 V										4...20 mA

Item description

Short description:

The Loop-Powered Isolation Amplifier converts analog, unipolar and bipolar, standard signals. It is also designed to amplify, filter and electrically isolate standard analog signals.

Features:

- No additional supply voltage required
- Zero/span adjustment
- Analog, unipolar and bipolar, standard signals at input
- Calibrated scale switching
- Switchable max. operating frequency
- Safe 2-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	±1 V; 0 ... 1 V; ±2 V; 0 ... 2 V; ±5 V; 0 ... 5 V; 1 ... 5 V; ±10 V; 0 ... 10 V; 2 ... 10 V; ±20 V; 0 ... 20 V
Input signal, current	±5 mA; 0 ... 5 mA; ±10 mA; 0 ... 10 mA; 2 ... 10 mA; ±20 mA; 0 ... 20 mA; 4 ... 20 mA
Input resistance (input/current)	≤ 50 Ω
Input resistance (input/voltage)	≥ 1 MΩ
Max. input current	50 mA

Max. input voltage	30 V
Zero/span adjustment	± 5 % of the full scale value

Output

Output signal type	Current
Output signal current	4 ... 20 mA
Load impedance (output/current)	≤ 600 Ω

Signal processing

Max. operating frequency	100 Hz / 30 Hz (configurable via DIP switch)
Step response typ.	3.5 ms

Measurement error

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

Power supply

Type of power supply	loop-powered (via output)
Supply voltage	DC 8 ... 30 V (power derived from the output circuit)

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 MJ
Weight	37.904 g

Environmental Requirements

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

Standards and specifications

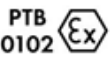

Conformity marking	1
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3

Commercial data


Product Group	6 (Interface Electronics)
Country of origin	DE
GTIN	4045454828479
Customs Tariff No.	85437090300

Approvals / Certificates

Ex-Approvals


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

UL-Approvals


Logo	Approval	Additional Approval Text	Certificate name
	UL UL International Netherlands B.V. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.4

Compatible products

power supply

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










tools
















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
















	Item no.: 857-980 Interface adapter; 16-pole; analog	857-980
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





Marking accessories

	Item no.: 2009-110 Marking strips; on reel; not stretchable; plain; snap-on type	2009-110
	Item no.: 2009-115 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-115
	Item no.: 2009-115/000-002 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-115 /000-002
	Item no.: 2009-115/000-006 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-115 /000-006
	Item no.: 2009-115/000-007 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-115 /000-007
	Item no.: 2009-115/000-012 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-115 /000-012
	Item no.: 2009-115/000-017 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-115 /000-017
	Item no.: 2009-115/000-023 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-115 /000-023
	Item no.: 2009-115/000-024 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-115 /000-024

	Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type		793-501
	Item no.: 793-501/000-002 WMB marking card; as card; not stretchable; plain; snap-on type	/000-002	793-501
	Item no.: 793-501/000-005 WMB marking card; as card; not stretchable; plain; snap-on type	/000-005	793-501
	Item no.: 793-501/000-006 WMB marking card; as card; not stretchable; plain; snap-on type	/000-006	793-501
	Item no.: 793-501/000-007 WMB marking card; as card; not stretchable; plain; snap-on type	/000-007	793-501
	Item no.: 793-501/000-012 WMB marking card; as card; not stretchable; plain; snap-on type	/000-012	793-501
	Item no.: 793-501/000-017 WMB marking card; as card; not stretchable; plain; snap-on type	/000-017	793-501
	Item no.: 793-501/000-023 WMB marking card; as card; not stretchable; plain; snap-on type	/000-023	793-501
	Item no.: 793-501/000-024 WMB marking card; as card; not stretchable; plain; snap-on type	/000-024	793-501
	Item no.: 793-502 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type		793-502
	Item no.: 793-502/000-002 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type	/000-002	793-502
	Item no.: 793-502/000-005 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type	/000-005	793-502
	Item no.: 793-502/000-006 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type	/000-006	793-502
	Item no.: 793-502/000-007 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type	/000-007	793-502
	Item no.: 793-502/000-012 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type	/000-012	793-502

	Item no.: 793-502/000-017 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type /000-017	793-502
	Item no.: 793-502/000-023 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type /000-023	793-502
	Item no.: 793-502/000-024 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type /000-024	793-502
	Item no.: 793-503 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type	793-503
	Item no.: 793-503/000-002 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type /000-002	793-503
	Item no.: 793-503/000-005 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type /000-005	793-503
	Item no.: 793-503/000-006 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type /000-006	793-503
	Item no.: 793-503/000-007 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type /000-007	793-503
	Item no.: 793-503/000-012 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type /000-012	793-503
	Item no.: 793-503/000-017 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type /000-017	793-503
	Item no.: 793-503/000-023 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type /000-023	793-503
	Item no.: 793-503/000-024 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type /000-024	793-503
	Item no.: 793-504 WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type	793-504
	Item no.: 793-504/000-002 WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type /000-002	793-504
	Item no.: 793-504/000-005 WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type /000-005	793-504

	Item no.: 793-504/000-006 WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type	793-504
		/000-006
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		/000-012
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		/000-017
	Item no.: 793-504/000-023 WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type	793-504
		/000-023
	Item no.: 793-505 WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type	793-505
	Item no.: 793-505/000-005 WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type	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	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	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	793-505
		/000-012
	Item no.: 793-506 WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type	793-506
	Item no.: 793-506/000-005 WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type	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	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	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	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	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	/000-002	793-5501
	Item no.: 793-5501/000-005 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-005	793-5501
	Item no.: 793-5501/000-006 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-006	793-5501
	Item no.: 793-5501/000-007 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-007	793-5501
	Item no.: 793-5501/000-012 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-012	793-5501
	Item no.: 793-5501/000-014 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-014	793-5501
	Item no.: 793-5501/000-017 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-017	793-5501
	Item no.: 793-5501/000-023 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-023	793-5501
	Item no.: 793-5501/000-024 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-024	793-5501
	Item no.: 793-566 WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type		793-566
	Item no.: 793-566/000-002 WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type	/000-002	793-566
	Item no.: 793-566/000-005 WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type	/000-005	793-566
	Item no.: 793-566/000-006 WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type	/000-006	793-566
	Item no.: 793-566/000-007 WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type	/000-007	793-566
	Item no.: 793-566/000-012 WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type	/000-012	793-566



Item no.: 793-566/000-017

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

/000-017

793-566



Item no.: 793-566/000-023

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

/000-023

793-566



Item no.: 793-566/000-024

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

/000-024

793-566

General accessories



Item no.: 857-979

Supply and through module

857-979

Jumper



Item no.: 281-482

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

281-482



Item no.: 859-402

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

859-402



Item no.: 859-402/000-005

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

/000-005

859-402



Item no.: 859-402/000-006

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

/000-006

859-402



Item no.: 859-402/000-029

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

/000-029

859-402



Item no.: 859-403

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

859-403



Item no.: 859-403/000-005

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

/000-005

859-403



Item no.: 859-403/000-006

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

/000-006

859-403



Item no.: 859-403/000-029

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

/000-029

859-403



Item no.: 859-404

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

859-404



























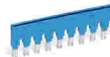




Item no.: 859-404/000-005

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

/000-005

859-404

	Item no.: 859-404/000-006 Push-in type jumper bar; 4-way; Nominal current 18 A; insulated	859-404
		/000-006
	Item no.: 859-404/000-029 Push-in type jumper bar; 4-way; Nominal current 18 A; insulated	859-404
		/000-029
	Item no.: 859-405 Push-in type jumper bar; 5-way; Nominal current 18 A; insulated	859-405
	Item no.: 859-405/000-005 Push-in type jumper bar; 5-way; Nominal current 18 A; insulated	859-405
		/000-005
	Item no.: 859-405/000-006 Push-in type jumper bar; 5-way; Nominal current 18 A; insulated	859-405
		/000-006
	Item no.: 859-405/000-029 Push-in type jumper bar; 5-way; Nominal current 18 A; insulated	859-405
		/000-029
	Item no.: 859-406 Push-in type jumper bar; 6-way; Nominal current 18 A; insulated	859-406
	Item no.: 859-406/000-005 Push-in type jumper bar; 6-way; Nominal current 18 A; insulated	859-406
		/000-005
	Item no.: 859-406/000-006 Push-in type jumper bar; 6-way; Nominal current 18 A; insulated	859-406
		/000-006
	Item no.: 859-406/000-029 Push-in type jumper bar; 6-way; Nominal current 18 A; insulated	859-406
		/000-029
	Item no.: 859-407 Push-in type jumper bar; 7-way; Nominal current 18 A; insulated	859-407
	Item no.: 859-407/000-005 Push-in type jumper bar; 7-way; Nominal current 18 A; insulated	859-407
		/000-005
	Item no.: 859-407/000-006 Push-in type jumper bar; 7-way; Nominal current 18 A; insulated	859-407
		/000-006
	Item no.: 859-407/000-029 Push-in type jumper bar; 7-way; Nominal current 18 A; insulated	859-407
		/000-029
	Item no.: 859-408 Push-in type jumper bar; 8-way; Nominal current 18 A; insulated	859-408
	Item no.: 859-408/000-005 Push-in type jumper bar; 8-way; Nominal current 18 A; insulated	859-408
		/000-005

	Item no.: 859-408/000-006 Push-in type jumper bar; 8-way; Nominal current 18 A; insulated	7000-006	859-408
	Item no.: 859-408/000-029 Push-in type jumper bar; 8-way; Nominal current 18 A; insulated	7000-029	859-408
	Item no.: 859-409 Push-in type jumper bar; 9-way; Nominal current 18 A; insulated		859-409
	Item no.: 859-409/000-005 Push-in type jumper bar; 9-way; Nominal current 18 A; insulated	7000-005	859-409
	Item no.: 859-409/000-006 Push-in type jumper bar; 9-way; Nominal current 18 A; insulated	7000-006	859-409
	Item no.: 859-409/000-029 Push-in type jumper bar; 9-way; Nominal current 18 A; insulated	7000-029	859-409
	Item no.: 859-410 Push-in type jumper bar; 10-way; Nominal current 18 A; insulated		859-410
	Item no.: 859-410/000-005 Push-in type jumper bar; 10-way; Nominal current 18 A; insulated	7000-005	859-410
	Item no.: 859-410/000-006 Push-in type jumper bar; 10-way; Nominal current 18 A; insulated	7000-006	859-410
	Item no.: 859-410/000-029 Push-in type jumper bar; 10-way; Nominal current 18 A; insulated	7000-029	859-410
assembling			
	Item no.: 249-116 Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5		249-116
	Item no.: 249-117 Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5		249-117
	Item no.: 249-197 Screwless end stop; 14 mm wide; for DIN-rail 35 x 15 and 35 x 7.5		249-197

Downloads

Documentation

Bid Text

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Instruction Leaflet

Loop-Powered Isolation Amplifier

pdf
1.8 MB

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Additional Information

Disposal; Electrical and electronic equipment, Packaging

V 1.0.0

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265.8 kB

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CAD/CAE - Smart Data

CAD data

3D Download 857-450

URL

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Subject to changes.
