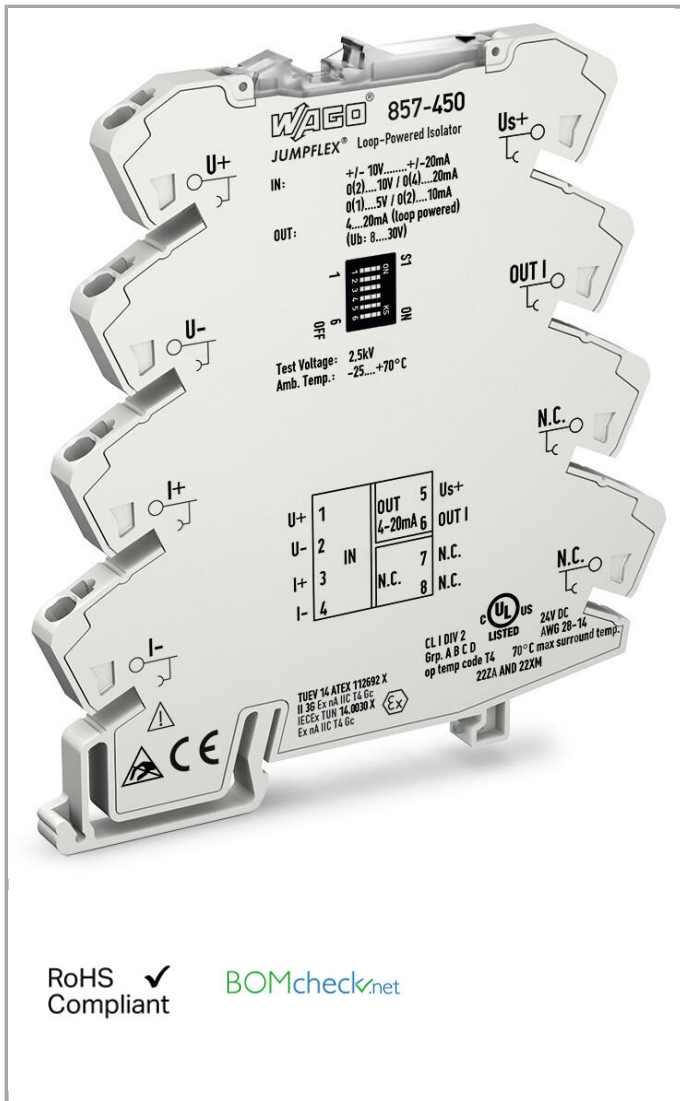


Data sheet | Item number: 857-450

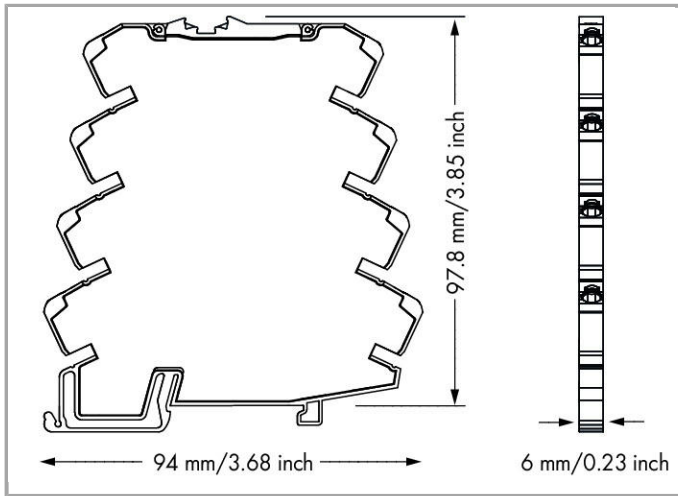
Loop-powered isolation amplifier; Bipolar current and voltage input signal;
 Current output signal; Configuration via DIP switch; Power via input; 6 mm
 module width



www.wago.com/857-450



U+	1	IN	OUT	5	Us+
U-	2		4-20mA	6	OUT I
I+	3	U, I	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		50 Hz
•	•	•	•	•	±20 mA		
•	•	•	•	•	2...10 mA		
•	•	•	•	•	0...10 mA		
•	•	•	•	•	±10 mA		
•	•	•	•	•	0...5 mA		
•	•	•	•	•	±5 mA		
•	•	•	•	•	0...20 V		
•	•	•	•	•	±20 V		
•	•	•	•	•	2...10 V		
•	•	•	•	•	0...10 V		
•	•	•	•	•	±10 V		
•	•	•	•	•	1...5 V		
•	•	•	•	•	0...5 V		
•	•	•	•	•	±5 V		
•	•	•	•	•	0...2 V		
•	•	•	•	•	±2 V		
•	•	•	•	•	0...1 V		
•	•	•	•	•	±1 V		

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
Input signal, current	±5 mA; 0 ... 5 mA; ±10 mA
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
------------------	-------------

Material Data

Color	light gray
-------	------------

Fire load	0.599 MJ
Weight	37.904 g

Environmental Requirements

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

Standards and specifications

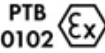

Conformity marking	1
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3

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 www.wago.com/787-2852

General accessories

Item no.: 857-979

Supply and through module www.wago.com/857-979

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

**Item no.: 859-402/000-005**

Push-in type jumper bar; 2-way; Nominal current 18 A; insulated www.wago.com/859-402/000-005

**Item no.: 859-402/000-006**

Push-in type jumper bar; 2-way; Nominal current 18 A; insulated www.wago.com/859-402/000-006

**Item no.: 859-402/000-029**

Push-in type jumper bar; 2-way; Nominal current 18 A; insulated www.wago.com/859-402/000-029

**Item no.: 859-403**

Push-in type jumper bar; 3-way; Nominal current 18 A; insulated www.wago.com/859-403

**Item no.: 859-403/000-005**

Push-in type jumper bar; 3-way; Nominal current 18 A; insulated www.wago.com/859-403/000-005

**Item no.: 859-403/000-006**

Push-in type jumper bar; 3-way; Nominal current 18 A; insulated www.wago.com/859-403/000-006

**Item no.: 859-403/000-029**

Push-in type jumper bar; 3-way; Nominal current 18 A; insulated www.wago.com/859-403/000-029

**Item no.: 859-404**

Push-in type jumper bar; 4-way; Nominal current 18 A; insulated www.wago.com/859-404

**Item no.: 859-404/000-005**

Push-in type jumper bar; 4-way; Nominal current 18 A; insulated www.wago.com/859-404/000-005

**Item no.: 859-404/000-006**

Push-in type jumper bar; 4-way; Nominal current 18 A; insulated www.wago.com/859-404/000-006



Item no.: 859-404/000-029
Push-in type jumper bar; 4-way; Nominal current 18 A; insulated

www.wago.com/859-404/000-029



Item no.: 859-405
Push-in type jumper bar; 5-way; Nominal current 18 A; insulated

www.wago.com/859-405



Item no.: 859-405/000-005
Push-in type jumper bar; 5-way; Nominal current 18 A; insulated

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



Item no.: 859-405/000-006
Push-in type jumper bar; 5-way; Nominal current 18 A; insulated

www.wago.com/859-405/000-006



Item no.: 859-405/000-029
Push-in type jumper bar; 5-way; Nominal current 18 A; insulated

www.wago.com/859-405/000-029



Item no.: 859-406
Push-in type jumper bar; 6-way; Nominal current 18 A; insulated

www.wago.com/859-406



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



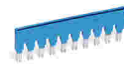
Item no.: 859-410
Push-in type jumper bar; 10-way; Nominal current 18 A; insulated

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

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

Marking accessories

Item no.: 2009-110
Marking strips; on reel; not stretchable; plain; snap-on type

www.wago.com/2009-110

Item no.: 2009-115
WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/2009-115
















Item no.: 2009-115/000-002
WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/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

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>	<p>www.wago.com/2009-115/000-007</p>
	<p>Item no.: 2009-115/000-012 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	<p>www.wago.com/2009-115/000-012</p>
	<p>Item no.: 2009-115/000-017 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	<p>www.wago.com/2009-115/000-017</p>
	<p>Item no.: 2009-115/000-023 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	<p>www.wago.com/2009-115/000-023</p>
	<p>Item no.: 2009-115/000-024 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	<p>www.wago.com/2009-115/000-024</p>
	<p>Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501</p>
	<p>Item no.: 793-501/000-002 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501/000-002</p>
	<p>Item no.: 793-501/000-005 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501/000-005</p>
	<p>Item no.: 793-501/000-006 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501/000-006</p>
	<p>Item no.: 793-501/000-007 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501/000-007</p>
	<p>Item no.: 793-501/000-012 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501/000-012</p>
	<p>Item no.: 793-501/000-017 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501/000-017</p>
	<p>Item no.: 793-501/000-023 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501/000-023</p>
	<p>Item no.: 793-501/000-024 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501/000-024</p>
	<p>Item no.: 793-502 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type</p>	<p>www.wago.com/793-502</p>

**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

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

Downloads

Documentation

Instruction Leaflet

Loop-Powered Isolation Amplifier

18-jun-2015

pdf
1.8 MB

Download

Additional Information

Disposal; Electrical and electronic equipment, Packaging

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