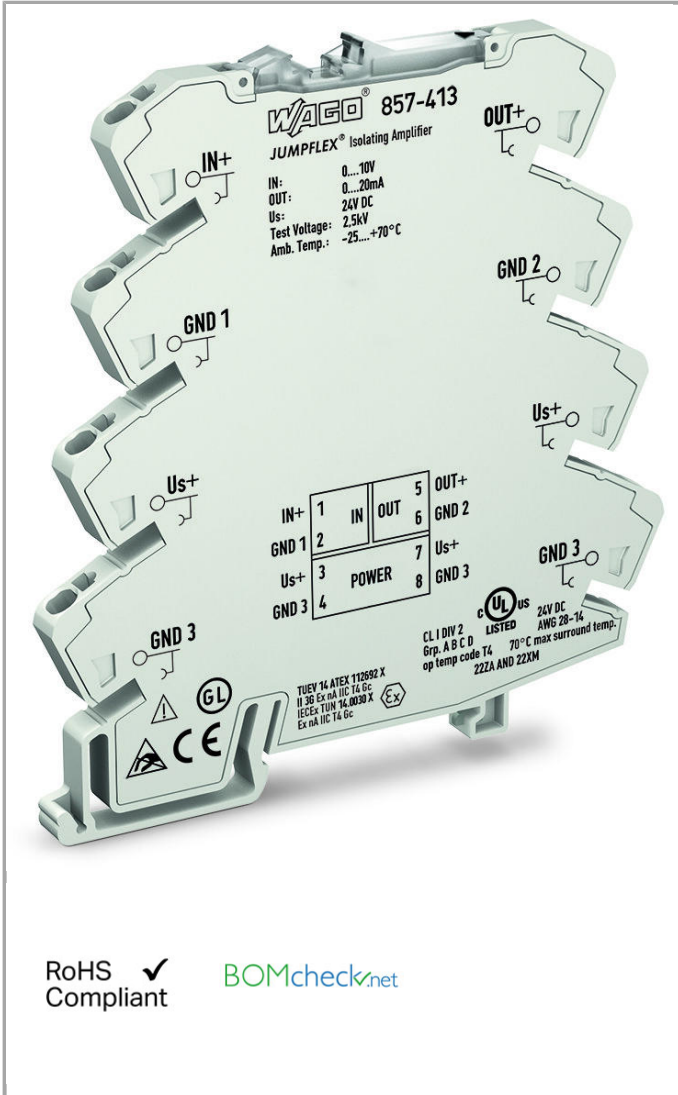


Data sheet | Item number: 857-413

Isolation amplifier; Voltage input signal; Current output signal; Supply voltage: 24 VDC; 6 mm module width



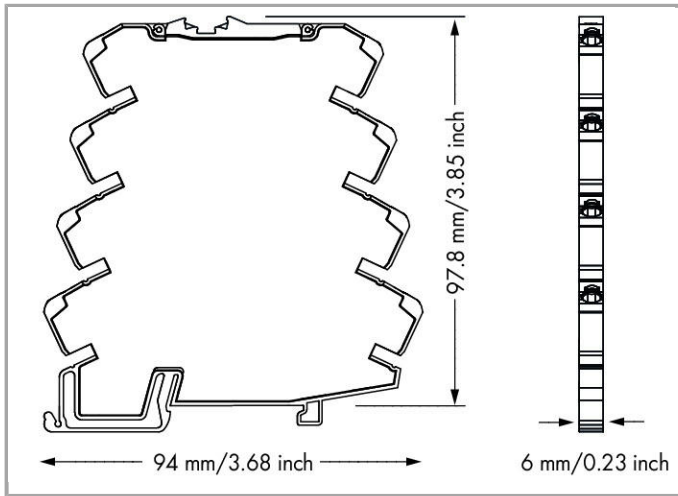
www.wago.com/857-413



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

RoHS Compliant

[BOMcheck.net](https://www.bomcheck.net)



Item description

Short description:

The pre-configured isolation amplifier converts, amplifies, filters and electrically isolates standard analog signals.

Features:

- Input/Output: current/voltage signal
- Safe 3-way isolation with 2.5kV test voltage per EN 61140

Data

Technical Data

Configuration

Configuration options	permanently configured
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Input

Input signal type	Voltage
Input signal voltage	0 ... 10 V
Input resistance (input/voltage)	$\geq 100 \text{ k}\Omega$
Max. input voltage	30 V

Output

Output signal type	Current
Output signal current	0 ... 20 mA
Load impedance (output/current)	$\leq 600 \Omega$

Signal processing

Max. operating frequency	100 Hz
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Step response typ.	3.5 ms
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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	0.6 MJ
Weight	36.01 g

Environmental Requirements

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

Standards and specifications


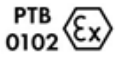
Conformity marking	1
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4

Commercial data





Product Group	6 (Interface Electronics)
Country of origin	DE
GTIN	4045454609870
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
	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
	<p>UL</p> <p>UL International Netherlands B.V. (ORDINARY LOCATIONS)</p>	UL 508	E175199 Sec.4

Compatible products

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
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Jumper

Item no.: 281-482 Comb-style jumper bar; insulated; 2-way; IN = IN terminal block	www.wago.com/281-482
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Item no.: 859-402 Push-in type jumper bar; 2-way; Nominal current 18 A; insulated	www.wago.com/859-402
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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
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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
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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
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Item no.: 859-403 Push-in type jumper bar; 3-way; Nominal current 18 A; insulated	www.wago.com/859-403
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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
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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
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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
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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













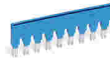

Item no.: 859-407/000-006
Push-in type jumper bar; 7-way; Nominal current 18 A; insulated

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

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

	<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
	<p>Item no.: 793-501/000-023 WMB marking card; as card; not stretchable; plain; snap-on type</p>	www.wago.com/793-501/000-023
	<p>Item no.: 793-501/000-024 WMB marking card; as card; not stretchable; plain; snap-on type</p>	www.wago.com/793-501/000-024

	<p>Item no.: 793-502 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type</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</p>	www.wago.com/793-502/000-002
	<p>Item no.: 793-502/000-005 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type</p>	www.wago.com/793-502/000-005
	<p>Item no.: 793-502/000-006 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type</p>	www.wago.com/793-502/000-006
	<p>Item no.: 793-502/000-007 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type</p>	www.wago.com/793-502/000-007
	<p>Item no.: 793-502/000-012 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type</p>	www.wago.com/793-502/000-012
	<p>Item no.: 793-502/000-017 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type</p>	www.wago.com/793-502/000-017
	<p>Item no.: 793-502/000-023 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type</p>	www.wago.com/793-502/000-023
	<p>Item no.: 793-502/000-024 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type</p>	www.wago.com/793-502/000-024
	<p>Item no.: 793-503 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type</p>	www.wago.com/793-503
	<p>Item no.: 793-503/000-002 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type</p>	www.wago.com/793-503/000-002
	<p>Item no.: 793-503/000-005 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type</p>	www.wago.com/793-503/000-005
	<p>Item no.: 793-503/000-006 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type</p>	www.wago.com/793-503/000-006
	<p>Item no.: 793-503/000-007 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type</p>	www.wago.com/793-503/000-007
	<p>Item no.: 793-503/000-012 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type</p>	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 www.wago.com/793-506
WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type /000-005



Item no.: 793-506/000-006 www.wago.com/793-506
WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type /000-006



Item no.: 793-506/000-012 www.wago.com/793-506
WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type /000-012



Item no.: 793-506/000-017 www.wago.com/793-506
WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type /000-017



Item no.: 793-5501 www.wago.com/793-5501
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type



Item no.: 793-5501/000-002 www.wago.com/793-5501
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type /000-002



Item no.: 793-5501/000-005 www.wago.com/793-5501
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type /000-005



Item no.: 793-5501/000-006 www.wago.com/793-5501
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type /000-006



Item no.: 793-5501/000-007 www.wago.com/793-5501
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type /000-007



Item no.: 793-5501/000-012 www.wago.com/793-5501
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type /000-012



Item no.: 793-5501/000-014 www.wago.com/793-5501
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type /000-014



Item no.: 793-5501/000-017 www.wago.com/793-5501
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type /000-017



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



Item no.: 793-5501/000-024 www.wago.com/793-5501
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type /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**General accessories****Item no.: 857-979**

Supply and through module

www.wago.com/857-979**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**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



Downloads

Documentation

Instruction Leaflet

Signal Conditioners and Isolation Amps 0...10 V / 0...20 mA	22-jun-2015	pdf 1.5 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

3D Download 857-413		URL	Download
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Subject to changes.