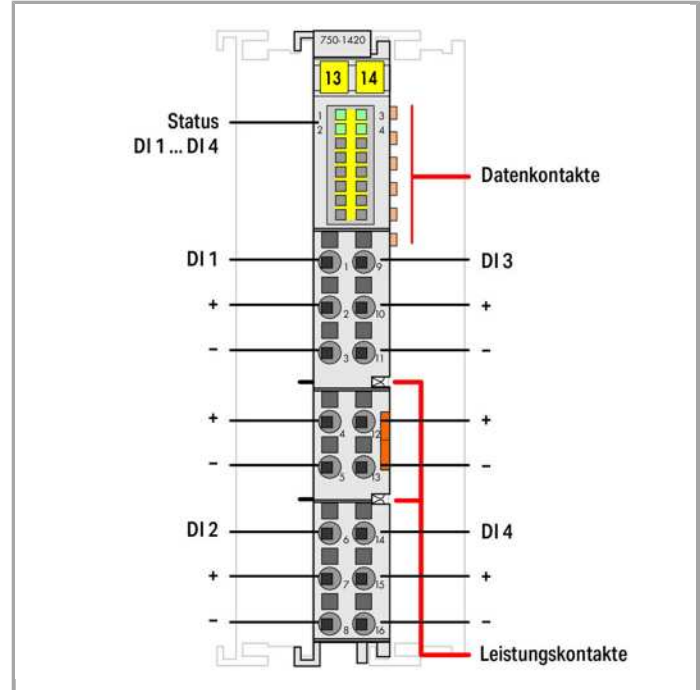
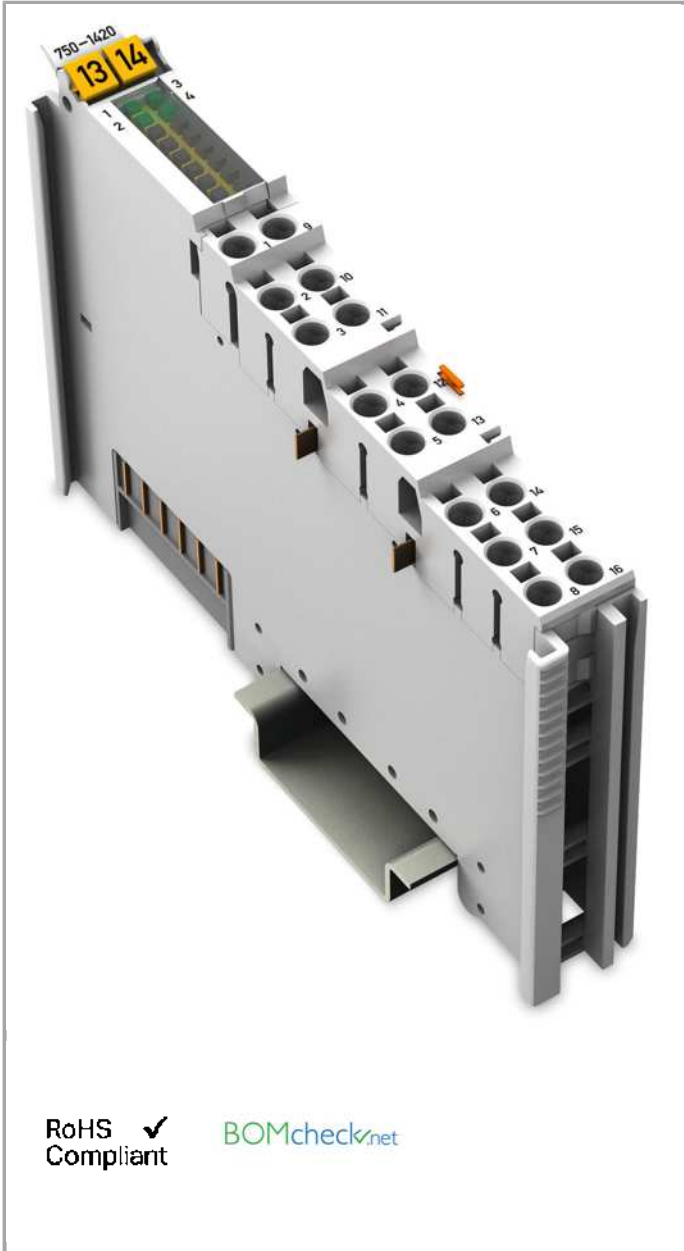


Data sheet | Item number: 750-1420

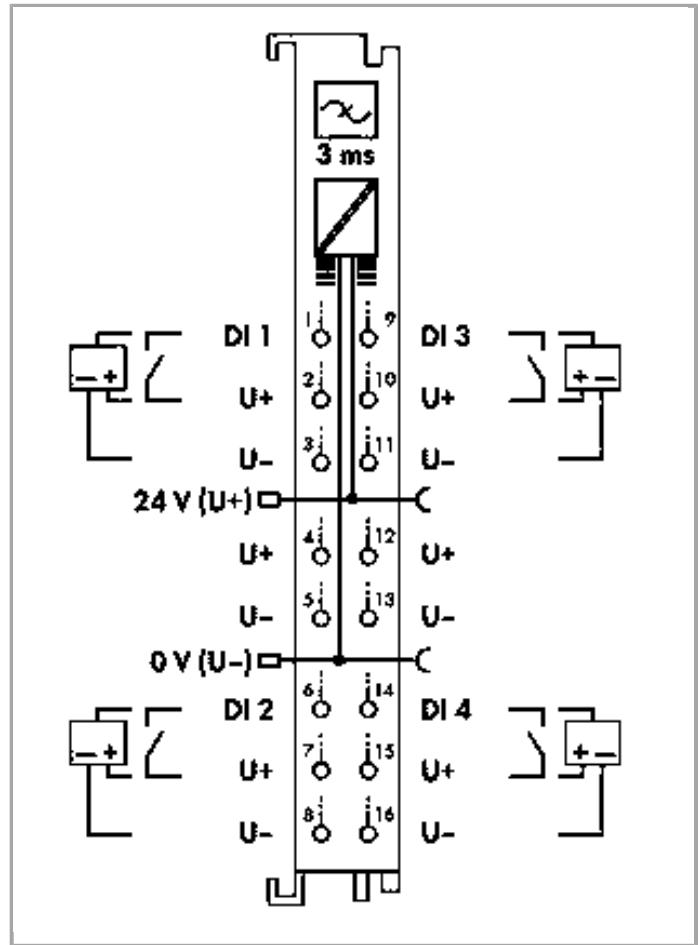
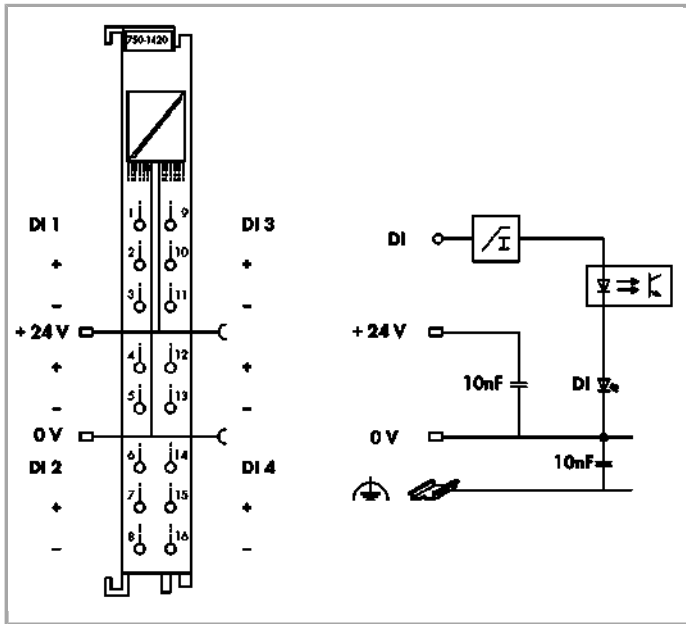
4-channel digital input; 24 VDC; 3 ms; 3-conductor connection

[www.wago.com/750-1420](http://www.wago.com/750-1420)



RoHS Compliant

[BOMcheck.net](http://BOMcheck.net)



### Item description

The 3-conductor digital input module provides four channels in a width of just 12 mm (0.47 inch).

It receives binary control signals from digital field devices (e.g., sensors, encoders, switches or proximity switches).

The module features Push-in CAGE CLAMP® connections enabling solid conductors to be connected by simply pushing them in.

Each input channel has a noise-rejection RC filter with 3.0 ms time constant.

A green LED indicates the switched status of each channel.

Field and system levels are electrically isolated.

An operating tool with a 2.5 mm blade (210-719) is required to open the Push-in CAGE CLAMP® connections.

### Data

#### Technical Data

Number of digital inputs	4
Total number of channels (module)	4
Type of signal	Voltage



Type of signal voltage	DC 24 V
Sensor supply voltage	24 V DC
Sensor connection	4 x (3-conductor)
Input characteristic	high-side switching
Input characteristic	Type 3
Input filter (digital)	3 ms
Input current per channel for signal (0) typ.	1.6 mA
Input current per channel for signal (1) min.	4.3 mA
Input current per channel for signal (1) max.	4.6 mA
Voltage range for signal (0)	-3 ... +5 VDC
Voltage range for signal (1)	11 ... 30 VDC
Max. input data width (internal)	4 Bit
Field supply voltage	DC 24 V (-25 ... 30 %); über Leistungskontakte; zur Weiterleitung getunnelt
Current consumption, field supply (module with no external load)	2 mA
System supply voltage	DC 5 V; via data contacts
Current consumption, system supply (5 V)	4 mA
Isolation field – system	500 VAC (1 min)
Indicators	LED (1-4) green: Status DI 1 ... DI 4
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity of the power jumper contacts	10 A

### Connection data

Connection technology: inputs/outputs	16 x Push-in CAGE CLAMP®
Connection type (1)	Inputs/Outputs
Solid conductor	0.08 ... 1.5 mm <sup>2</sup> / 28 ... 16 AWG
Fine-stranded conductor	0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 Inch
Conductor type (1)	f-st
Conductor type (2)	s
Conductor type (1)	fine-stranded
Conductor type (2)	solid

### Geometrical Data

Width	12 mm / 0.472 inch
Height	69 mm / 2.717 inch
Height from upper-edge of DIN-35 rail	61.8 mm / 2.433 inch
Depth	100 mm / 3.937 inch



## Mechanical data

Type of mounting	DIN-35 rail
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## Material Data

Color	lichtgrau
Housing material	Polycarbonate, polyamide 6.6
Fire load	0.954 MJ
Weight	45 g
Conformity marking	CE

## Environmental Requirements

Surrounding air (operating) temperature	0 ... 55 °C
Surrounding air (storage) temperature	-40 ... 85 °C
Degree of protection	IP20
Degree of pollution (5)	2 per IEC 61131-2
Operating altitude	0 ... 2000 m
Mounting position	horizontal (standing/lying) or vertical
Relative air humidity (no condensation)	95 %
Vibration resistance	4g per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible H <sub>2</sub> S contaminant concentration at a relative humidity < 75 %	10 ppm
Permissible SO <sub>2</sub> contaminant concentration at a relative humidity < 75 %	25 ppm

## Commercial data

Country of origin	DE
GTIN	4050821085614
Customs Tariff No.	85389099990
Product Group	15 (Remote I/O)

## Approvals / Certificates

### Ex-Approvals

Logo	Approval	Certificate name
	ATEX TUEV Nord Cert GmbH	TÜV 07 ATEX 554086 X en.



TUEV Nord  
TUEV Nord Cert GmbH

IECEX TUN 09.0001 X









UL  
Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)

E198726 Sec.1 (HAZARDOUS LOCATIONS)

Country specific Approvals

Logo	Approval	Certificate name
	KC National Radio Research Agency	MSIP-REM-W43-DIM750

Ship Approvals

Logo	Approval	Certificate name
	ABS American Bureau of Shipping	16-HG1554285-PDA
	BV Bureau Veritas S.A.	30389/A1 BV
	BV Bureau Veritas S.A.	30389/B0 BV
	DNV DNV Germany GmbH	A-14093
	GL Germanischer Lloyd	11 631 - 10 HH
	LR Lloyds Register	02/20026 (E5)
	NK	TA17255M



Nippon Kaiji Kyokai


**PRS**  
 Polski Rejestr Statków

TE/2210/880590/18


**PRS**  
 Polski Rejestr Statków

TE/1989/880590/13


**RINA**  
 RINA Germany GmbH





ELE134212XG

## UL-Approvals


Logo	Approval	Certificate name
	<b>UL</b> UL International Netherlands B.V. (ORDINARY LOCATIONS)	E175199 Sec.1 (ORDINARY LOCATIONS)

## Compatible products



## Supply module

	<b>Item no.: 750-601</b> Power Supply; 24 VDC	<a href="http://www.wago.com/750-601">www.wago.com/750-601</a>
	<b>Item no.: 750-602</b> Power Supply; 24 VDC	<a href="http://www.wago.com/750-602">www.wago.com/750-602</a>
	<b>Item no.: 750-610</b> Power Supply; 24 VDC; fuse holder; Diagnostics	<a href="http://www.wago.com/750-610">www.wago.com/750-610</a>
	<b>Item no.: 750-612</b> Power Supply; 0 ... 230 V AC/DC	<a href="http://www.wago.com/750-612">www.wago.com/750-612</a>

## tools








	<b>Item no.: 210-719</b> Operating tool with partially insulated shaft; Type 1, blade (2.5 x 0.4) mm	<a href="http://www.wago.com/210-719">www.wago.com/210-719</a>
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## Carrier rail


	<b>Item no.: 210-112</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm	<a href="http://www.wago.com/210-112">www.wago.com/210-112</a>
	<b>Item no.: 210-113</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715	<a href="http://www.wago.com/210-113">www.wago.com/210-113</a>

















	<b>Item no.: 210-114</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715	<a href="http://www.wago.com/210-114">www.wago.com/210-114</a>
	<b>Item no.: 210-115</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm	<a href="http://www.wago.com/210-115">www.wago.com/210-115</a>
	<b>Item no.: 210-118</b> Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715	<a href="http://www.wago.com/210-118">www.wago.com/210-118</a>
	<b>Item no.: 210-196</b> Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715	<a href="http://www.wago.com/210-196">www.wago.com/210-196</a>
	<b>Item no.: 210-197</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715	<a href="http://www.wago.com/210-197">www.wago.com/210-197</a>
	<b>Item no.: 210-198</b> Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715	<a href="http://www.wago.com/210-198">www.wago.com/210-198</a>
	<b>Item no.: 210-504</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715	<a href="http://www.wago.com/210-504">www.wago.com/210-504</a>
	<b>Item no.: 210-505</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715	<a href="http://www.wago.com/210-505">www.wago.com/210-505</a>
	<b>Item no.: 210-506</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715	<a href="http://www.wago.com/210-506">www.wago.com/210-506</a>
	<b>Item no.: 210-508</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715	<a href="http://www.wago.com/210-508">www.wago.com/210-508</a>

shield connection
















	<b>Item no.: 790-108</b> Shield clamping saddle; 11 mm wide; diameter of compatible conductor	<a href="http://www.wago.com/790-108">www.wago.com/790-108</a>
	<b>Item no.: 790-116</b> Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm	<a href="http://www.wago.com/790-116">www.wago.com/790-116</a>
	<b>Item no.: 790-124</b> Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 mm to 24 mm	<a href="http://www.wago.com/790-124">www.wago.com/790-124</a>
	<b>Item no.: 790-140</b> Shield clamping saddle; 43 mm wide; diameter of compatible conductor; 22 mm to 40 mm	<a href="http://www.wago.com/790-140">www.wago.com/790-140</a>
	<b>Item no.: 790-208</b> Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm	<a href="http://www.wago.com/790-208">www.wago.com/790-208</a>
	<b>Item no.: 790-216</b> Shield clamping saddle; 6–16 mm diameter; 21.8 mm wide	<a href="http://www.wago.com/790-216">www.wago.com/790-216</a>
	<b>Item no.: 790-220</b> Shield clamping saddle; 30 mm wide; 6 ... 20 mm	<a href="http://www.wago.com/790-220">www.wago.com/790-220</a>

system box

	<b>Item no.: 850-804</b> IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip	<a href="http://www.wago.com/850-804">www.wago.com/850-804</a>
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	<b>Item no.: 850-804/000-001</b> IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 2 x M20, 13 x M16, 32 x M12 cable grip	<a href="http://www.wago.com/850-804/000-001">www.wago.com/850-804/000-001</a>
	<b>Item no.: 850-805</b> IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip	<a href="http://www.wago.com/850-805">www.wago.com/850-805</a>
	<b>Item no.: 850-814/002-000</b> IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate	<a href="http://www.wago.com/850-814/002-000">www.wago.com/850-814/002-000</a>
	<b>Item no.: 850-815/002-000</b> IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate	<a href="http://www.wago.com/850-815/002-000">www.wago.com/850-815/002-000</a>
	<b>Item no.: 850-816/002-000</b> IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate	<a href="http://www.wago.com/850-816/002-000">www.wago.com/850-816/002-000</a>
	<b>Item no.: 850-817/002-000</b> IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate	<a href="http://www.wago.com/850-817/002-000">www.wago.com/850-817/002-000</a>
	<b>Item no.: 850-825</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20	<a href="http://www.wago.com/850-825">www.wago.com/850-825</a>
	<b>Item no.: 850-826</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	<a href="http://www.wago.com/850-826">www.wago.com/850-826</a>
	<b>Item no.: 850-826/002-000</b> IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	<a href="http://www.wago.com/850-826/002-000">www.wago.com/850-826/002-000</a>
	<b>Item no.: 850-827</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	<a href="http://www.wago.com/850-827">www.wago.com/850-827</a>
	<b>Item no.: 850-827/002-000</b> IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	<a href="http://www.wago.com/850-827/002-000">www.wago.com/850-827/002-000</a>
	<b>Item no.: 850-828</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	<a href="http://www.wago.com/850-828">www.wago.com/850-828</a>
	<b>Item no.: 850-828/002-000</b> IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	<a href="http://www.wago.com/850-828/002-000">www.wago.com/850-828/002-000</a>
	<b>Item no.: 850-834</b> IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20	<a href="http://www.wago.com/850-834">www.wago.com/850-834</a>
	<b>Item no.: 850-835</b> IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	<a href="http://www.wago.com/850-835">www.wago.com/850-835</a>
	<b>Item no.: 850-836</b> IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	<a href="http://www.wago.com/850-836">www.wago.com/850-836</a>

## Marking accessories

	<b>Item no.: 2009-145</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145">www.wago.com/2009-145</a>
	<b>Item no.: 2009-145/000-002</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145/000-002">www.wago.com/2009-145/000-002</a>
	<b>Item no.: 2009-145/000-005</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145/000-005">www.wago.com/2009-145/000-005</a>
	<b>Item no.: 2009-145/000-006</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145/000-006">www.wago.com/2009-145/000-006</a>
	<b>Item no.: 2009-145/000-007</b> Mini-WSB Inline; plain; 1,700 Mini-WSB markers (5 mm) on roll; stretchable 5 - 5.2 mm	<a href="http://www.wago.com/2009-145/000-007">www.wago.com/2009-145/000-007</a>
	<b>Item no.: 2009-145/000-012</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145/000-012">www.wago.com/2009-145/000-012</a>
	<b>Item no.: 2009-145/000-023</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145/000-023">www.wago.com/2009-145/000-023</a>
	<b>Item no.: 2009-145/000-024</b> Mini-WSB Inline; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145/000-024">www.wago.com/2009-145/000-024</a>
	<b>Item no.: 248-501</b> Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card	<a href="http://www.wago.com/248-501">www.wago.com/248-501</a>
	<b>Item no.: 248-501/000-002</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type	<a href="http://www.wago.com/248-501/000-002">www.wago.com/248-501/000-002</a>
	<b>Item no.: 248-501/000-005</b> Mini-WSB marking card; as card; plain; snap-on type	<a href="http://www.wago.com/248-501/000-005">www.wago.com/248-501/000-005</a>
	<b>Item no.: 248-501/000-006</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type	<a href="http://www.wago.com/248-501/000-006">www.wago.com/248-501/000-006</a>
	<b>Item no.: 248-501/000-007</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type	<a href="http://www.wago.com/248-501/000-007">www.wago.com/248-501/000-007</a>
	<b>Item no.: 248-501/000-012</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type	<a href="http://www.wago.com/248-501/000-012">www.wago.com/248-501/000-012</a>
	<b>Item no.: 248-501/000-017</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type	<a href="http://www.wago.com/248-501/000-017">www.wago.com/248-501/000-017</a>



**Item no.: 248-501/000-023**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

[www.wago.com/248-501/000-023](http://www.wago.com/248-501/000-023)



**Item no.: 248-501/000-024**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

[www.wago.com/248-501/000-024](http://www.wago.com/248-501/000-024)



**Item no.: 750-103**  
Group marker carrier

[www.wago.com/750-103](http://www.wago.com/750-103)



**Item no.: 750-107**  
Group marker carrier

[www.wago.com/750-107](http://www.wago.com/750-107)

## Downloads

### Documentation

#### Manual

4-channel, 24VDC, 3.0ms 3-conductor connection; high-side switching	Aug 5, 2015	2.0 MB	Download
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#### Bid Text

750-1420 IO-Klemmen	Jan 20, 2016	DOC 27.1 kB	Download
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#### Additional Information

Disposal; Electrical and electronic equipment, Packaging	Oct 15, 2018	265.8 kB	Download
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#### System Description

Overview on WAGO-I/O-SYSTEM 750 approvals	Jun 6, 2017	314.9 kB	Download
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Design Notes Basic conditions and recommendations for higher operational safety	May 3, 2011	1.5 MB	Download
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750/753 Series I/O-System – General Product Information	May 29, 2018	2.0 MB	Download
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Use in Hazardous Environments Term definition, marking and installation regulations	May 8, 2014	1.0 MB	Download
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## smartDATA

### CAD data



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## Device Files

### Device Driver

WAGO USB Service Cable Driver / 750 and 857 Series

6.5.3.0

Sep 10, 2014

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## Product family

### **750/753 Series I/O-System**

[Learn more about the product family.](#)

[Show all products from the family](#)

Subject to changes.

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