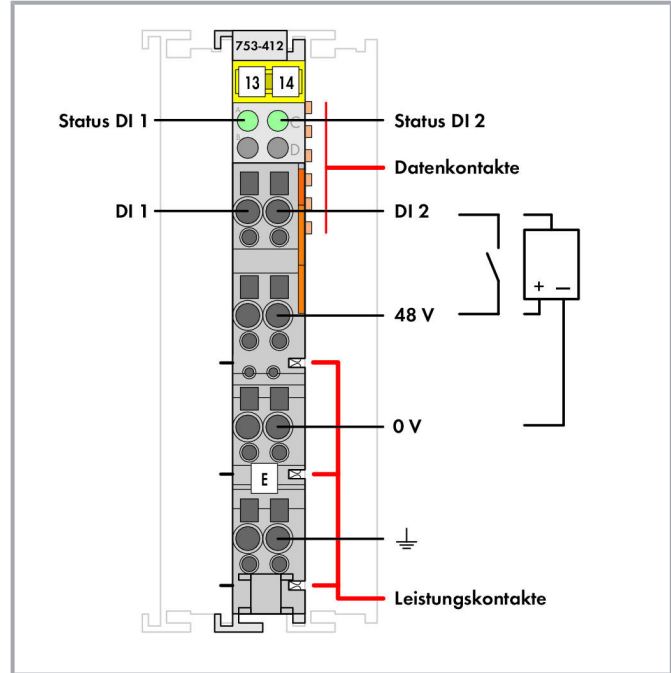
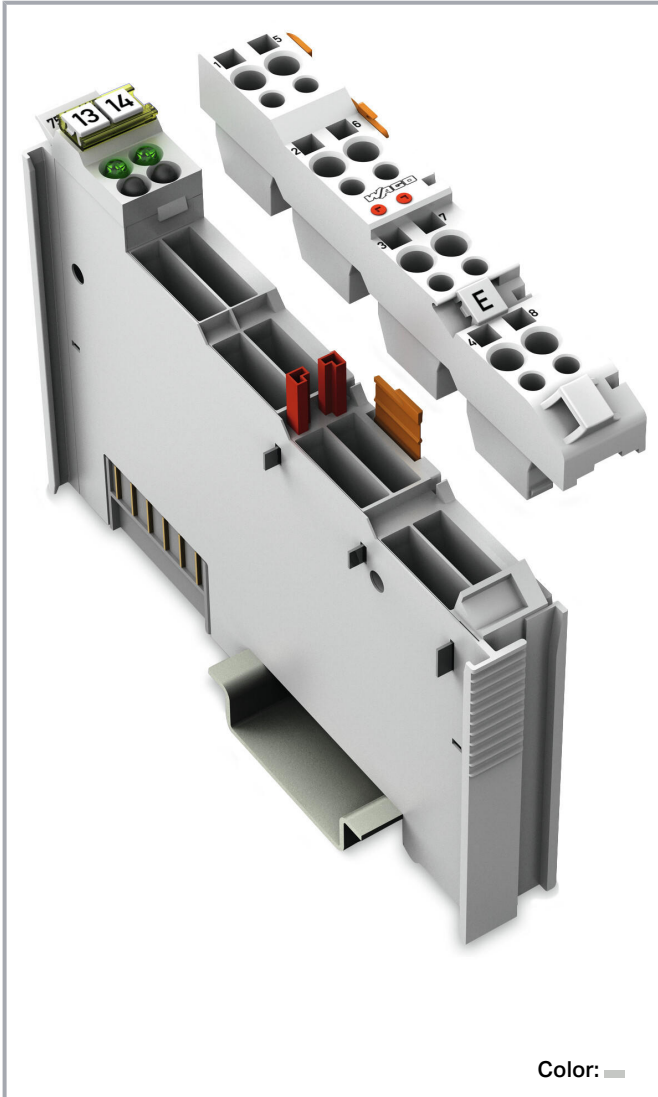


**Data sheet | Item number: 753-412**  
2-channel digital input; 48 VDC; 3 ms

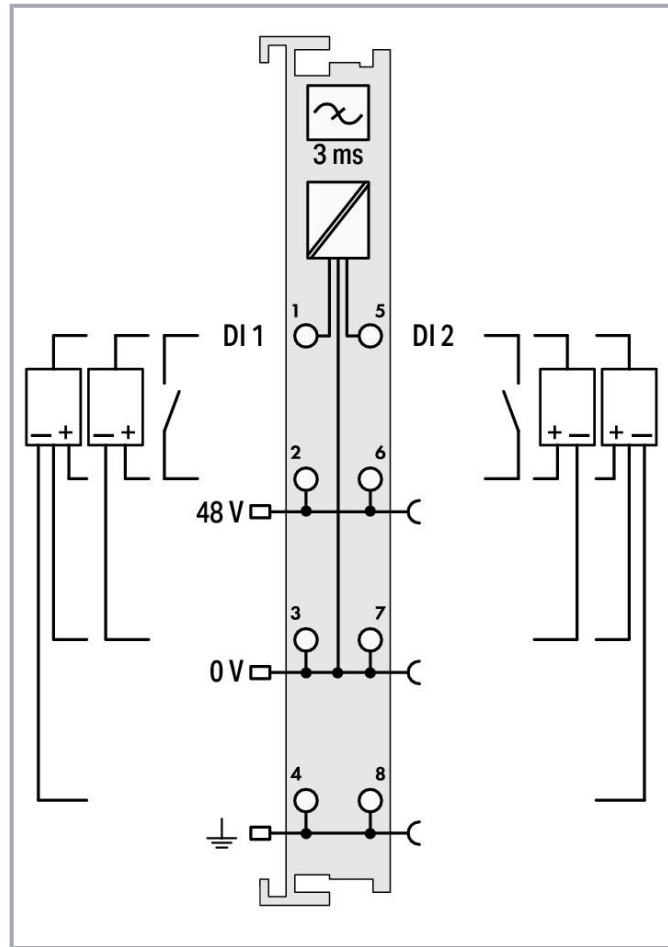
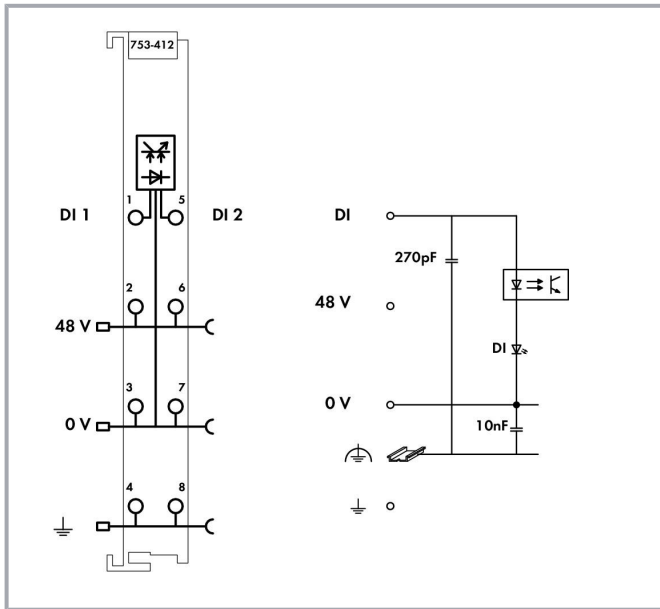
[www.wago.com/753-412](http://www.wago.com/753-412)



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

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## Item description

This digital input module receives control signals from field devices (e.g., sensors).

Each input module has a noise-rejection filter with a time constant.

Field and system levels are electrically isolated.

### Notice:

An additional supply module must be added for 48 VDC supply!

### Note:

Pluggable connectors and coding fingers (753 Series) are not included.

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



## Data

### Technical data

Number of digital inputs	2
Total number of channels (module)	2
Signal type	Voltage
Voltage signal type	48 VDC
Supply voltage (sensor)	48 VDC
Sensor connection	2 x (2-wire, 3-wire, 4-wire)
Input characteristic	high-side switching
Input filter (digital)	3 ms
Input current per channel for signal (1) (typ.)	3.8 mA
Voltage range for signal (0)	-6 ... +10 VDC
Voltage range for signal (1)	34 ... 60 VDC
Input data width (internal) (max.)	2 bits
Supply voltage (system)	5 VDC; via data contacts
Power consumption (5 V system supply)	2.5 mA
Supply voltage (field)	48 VDC (-15 ... +20 %); via power jumper contacts (power supply via blade contact; transmission via spring contact)
Isolation	500 V system/field
Indicators	LED (A, C) green: Status DI 1, DI 2
Number of incoming power jumper contacts	3
Number of outgoing power jumper contacts	3
Current carrying capacity (power jumper contacts)	10 A

### Connection data

Connection technology: inputs/outputs	8 x CAGE CLAMP®
Connection type (1)	Inputs/Outputs
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch

### Physical data

Width	12 mm / 0.472 inch
Height	100 mm / 3.937 inch
Depth	69.8 mm / 2.748 inch

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



Depth from upper edge of DIN-rail	62.6 mm / 2.465 inch
-----------------------------------	----------------------

### Mechanical data

Mounting type	DIN-35 rail
Wiring interface	Pluggable

### Material data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	1.156 MJ
Weight	38.2 g
Conformity marking	CE

### Environmental requirements

Surrounding air temperature (operation)	0 ... 55 °C
Surrounding air temperature (storage)	-40 ... 85 °C
Protection type	IP20
Pollution degree (5)	2 per IEC 61131-2
Operating altitude	0 ... 2000 m
Mounting position	horizontal (standing/lying); vertical
Relative humidity (without condensation)	95 %
Vibration resistance	per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	per EN 61000-6-2
EMC emission of interference	per EN 61000-6-4
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

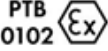




Product Group	15 (Remote I/O)
PU (SPU)	1 Stück
Packaging type	box
Country of origin	DE

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


GTIN	4045454682644
Customs tariff number	85389099990

## Approvals / Certificates


### Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TÜV 07 ATEX 554086 X en.
 Ex nA IIC T4 Gc	CCCEX CQST/CNEX	CNCA-C23-01	2020312310000215
	EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02. B.00163/19
	TUEV Nord TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 09.0001 X
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

### Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP- REM-W43- DIM750

### UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL UL International Netherlands B.V. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

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

## Required accessories

### Pluggable connector

Male connector/plug



**Item no.: 753-110**  
Plug

[www.wago.com/753-110](http://www.wago.com/753-110)

## Optional accessories

### Pluggable connector

Coding



**Item no.: 753-150**  
753 Series coding elements

[www.wago.com/753-150](http://www.wago.com/753-150)

### System housing

System enclosure



**Item no.: 850-814/002-000**  
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate

[www.wago.com/850-814/002-000](http://www.wago.com/850-814/002-000)



**Item no.: 850-815/002-000**  
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate

[www.wago.com/850-815/002-000](http://www.wago.com/850-815/002-000)



**Item no.: 850-816/002-000**  
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate

[www.wago.com/850-816/002-000](http://www.wago.com/850-816/002-000)



**Item no.: 850-817/002-000**  
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate

[www.wago.com/850-817/002-000](http://www.wago.com/850-817/002-000)



**Item no.: 850-825**  
IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20

[www.wago.com/850-825](http://www.wago.com/850-825)



**Item no.: 850-826**  
IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

[www.wago.com/850-826](http://www.wago.com/850-826)



**Item no.: 850-827**  
IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

[www.wago.com/850-827](http://www.wago.com/850-827)



**Item no.: 850-827/002-000**  
IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

[www.wago.com/850-827/002-000](http://www.wago.com/850-827/002-000)



**Item no.: 850-826/002-000**  
IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

[www.wago.com/850-826/002-000](http://www.wago.com/850-826/002-000)

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



**Item no.: 850-828/002-000**

IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip

[www.wago.com/850-828/002-000](http://www.wago.com/850-828/002-000)



**Item no.: 850-828**

IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip

[www.wago.com/850-828](http://www.wago.com/850-828)



**Item no.: 850-834**

IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20

[www.wago.com/850-834](http://www.wago.com/850-834)



**Item no.: 850-835**

IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

[www.wago.com/850-835](http://www.wago.com/850-835)



**Item no.: 850-836**

IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

[www.wago.com/850-836](http://www.wago.com/850-836)

### Shield termination

#### Shield clamping saddle



**Item no.: 790-116**

Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm

[www.wago.com/790-116](http://www.wago.com/790-116)



**Item no.: 790-124**

Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm

[www.wago.com/790-124](http://www.wago.com/790-124)



**Item no.: 790-108**

Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm

[www.wago.com/790-108](http://www.wago.com/790-108)



**Item no.: 790-140**

Shield clamping saddle; diameter of compatible conductor

[www.wago.com/790-140](http://www.wago.com/790-140)



**Item no.: 790-216**

Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm

[www.wago.com/790-216](http://www.wago.com/790-216)



**Item no.: 790-220**

Shield clamping saddle; 30 mm wide; 6 ... 20 mm

[www.wago.com/790-220](http://www.wago.com/790-220)



**Item no.: 790-208**

Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm

[www.wago.com/790-208](http://www.wago.com/790-208)

### Supply module

#### Supply module



**Item no.: 750-612**

Power Supply; 0 ... 230 V AC/DC

[www.wago.com/750-612](http://www.wago.com/750-612)



**Item no.: 753-612**

Power Supply; 0 ... 230 V AC/DC

[www.wago.com/753-612](http://www.wago.com/753-612)

### Marking accessories













#### Marker carrier

**Item no.: 750-103**

Group marker carrier

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

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

Marker		
	<b>Item no.: 2009-145/000-006</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue	<a href="http://www.wago.com/2009-145/000-006">www.wago.com/2009-145/000-006</a>
	<b>Item no.: 2009-145</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	<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 Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow	<a href="http://www.wago.com/2009-145/000-002">www.wago.com/2009-145/000-002</a>
	<b>Item no.: 2009-145/000-007</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray	<a href="http://www.wago.com/2009-145/000-007">www.wago.com/2009-145/000-007</a>
	<b>Item no.: 2009-145/000-005</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red	<a href="http://www.wago.com/2009-145/000-005">www.wago.com/2009-145/000-005</a>
	<b>Item no.: 2009-145/000-012</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange	<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 Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green	<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; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet	<a href="http://www.wago.com/2009-145/000-024">www.wago.com/2009-145/000-024</a>
	<b>Item no.: 248-501/000-006</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue	<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; gray	<a href="http://www.wago.com/248-501/000-007">www.wago.com/248-501/000-007</a>
	<b>Item no.: 248-501/000-002</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow	<a href="http://www.wago.com/248-501/000-002">www.wago.com/248-501/000-002</a>
	<b>Item no.: 248-501/000-012</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange	<a href="http://www.wago.com/248-501/000-012">www.wago.com/248-501/000-012</a>

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





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

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



**Item no.: 248-501/000-017**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green

[www.wago.com/248-501/000-017](http://www.wago.com/248-501/000-017)



**Item no.: 248-501/000-005**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red

[www.wago.com/248-501/000-005](http://www.wago.com/248-501/000-005)



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

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



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

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



**Item no.: 750-100**  
Marker card; as a DIN A4 sheet; plain

[www.wago.com/750-100](http://www.wago.com/750-100)

Group marker carrier



**Item no.: 750-106**  
Group marker carrier

[www.wago.com/750-106](http://www.wago.com/750-106)

Carrier rail

Mounting accessories



**Item no.: 210-197**  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored

[www.wago.com/210-197](http://www.wago.com/210-197)



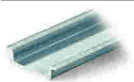
**Item no.: 210-198**  
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored

[www.wago.com/210-198](http://www.wago.com/210-198)



**Item no.: 210-504**  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored

[www.wago.com/210-504](http://www.wago.com/210-504)



**Item no.: 210-505**  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored

[www.wago.com/210-505](http://www.wago.com/210-505)


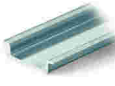




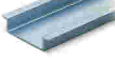


**Item no.: 210-506**  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored

[www.wago.com/210-506](http://www.wago.com/210-506)

**Item no.: 210-508**

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

	Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-508">www.wago.com/210-508</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; silver-colored	<a href="http://www.wago.com/210-113">www.wago.com/210-113</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; silver-colored	<a href="http://www.wago.com/210-118">www.wago.com/210-118</a>
	<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; silver-colored	<a href="http://www.wago.com/210-112">www.wago.com/210-112</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; silver-colored	<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; silver-colored	<a href="http://www.wago.com/210-115">www.wago.com/210-115</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; silver-colored	<a href="http://www.wago.com/210-196">www.wago.com/210-196</a>

## Downloads

### Documentation

Manual			
2-channel, 48VDC, 3.0ms 2- to 4-wire connection; high-side switching	V 1.2.0	pdf 2.3 MB	Download
System Manual WAGO I/O System 750 / 753 Decentralized Automation Technology	V 3.0.2 2021. 4. 27.	pdf 6.6 MB	Download
System Manual Series 750/753 Online HTML		URL	Download

### Bid Text

753-412 doc - Datei	2017. 7. 13.	doc 26.6 kB	Download
753-412 X81 - Datei	2019. 2. 19.	xml 4.6 kB	Download

### Additional Information

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Disposal; Electrical and electronic equipment, Packaging

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265.8 kB

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### System Description

750/753 Series I/O-System – General Product Information

pdf  
1.7 MB

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Overview on WAGO-I/O-SYSTEM 750 approvals

pdf  
780.2 kB

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### CAD/CAE-Data

#### CAE data

EPLAN Data Portal 753-412

URL

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WSCAD Universe 753-412

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ZUKEN Portal 753-412

URL

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#### CAD data

2D/3D Models 753-412

URL

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### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 753-412

URL

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2-channel digital input; 48 VDC; 3 ms

### Installation Notes

### Product family

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

[Show all products from the family](#)

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

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