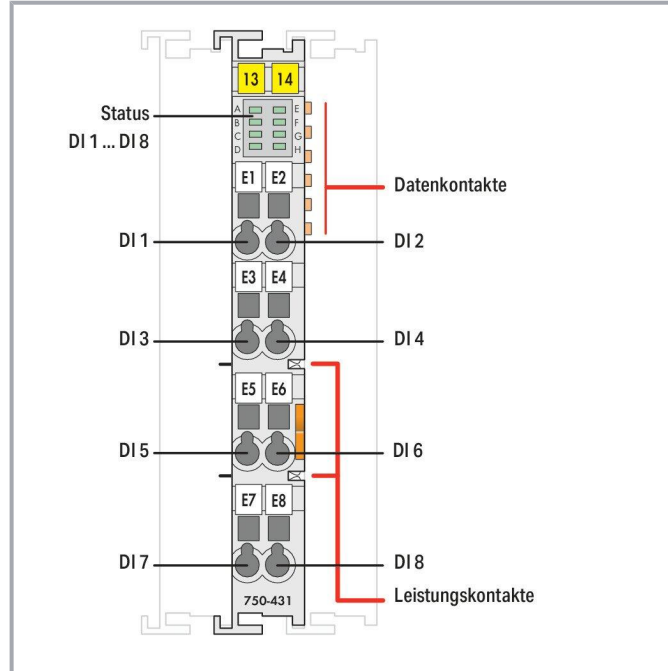
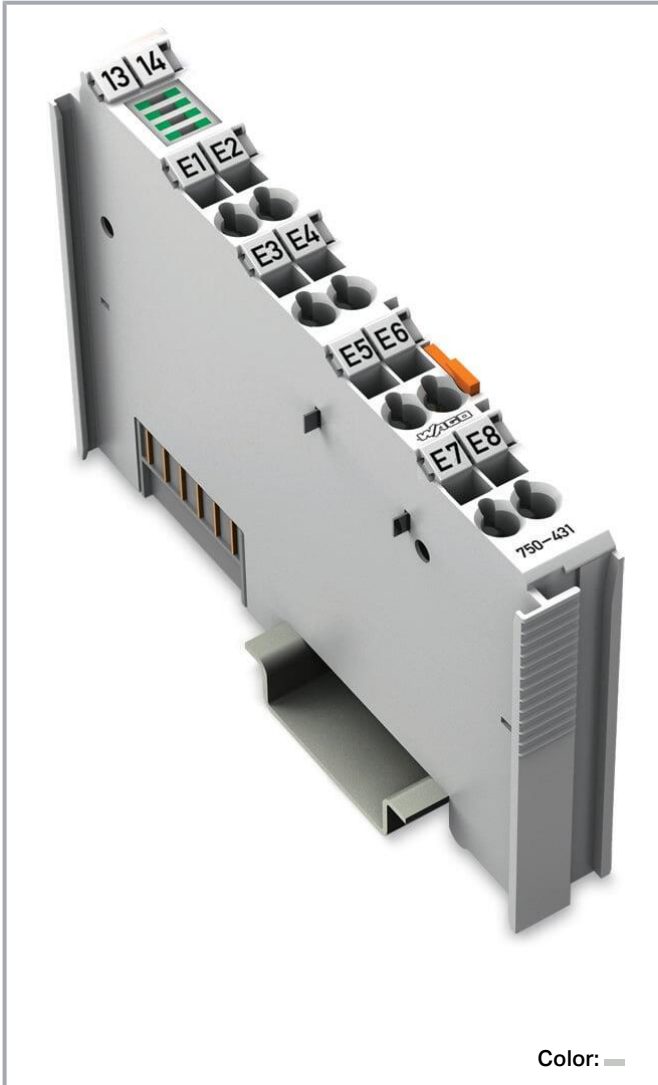


Data sheet | Item number: 750-431  
8-channel digital input; 24 VDC; 0.2 ms

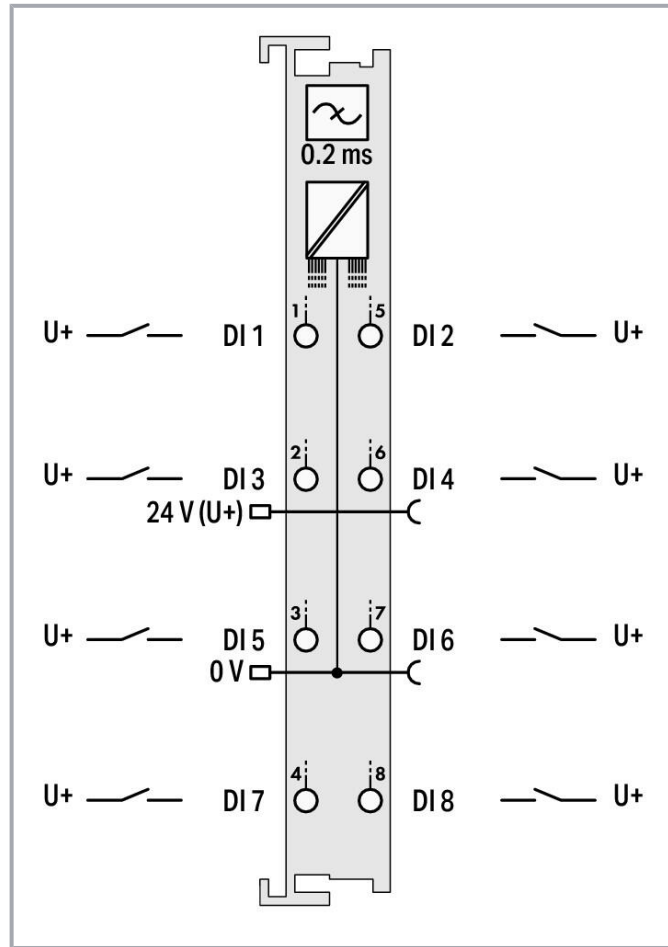
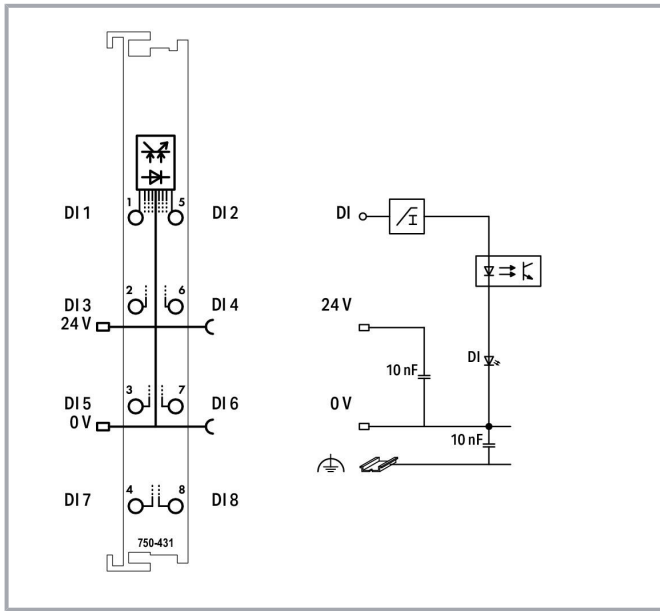
[www.wago.com/750-431](http://www.wago.com/750-431)



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

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## Item description

This digital input module features eight channels in a width of just 12 mm (0.47 inch). It receives control signals from digital field devices (e.g., sensors).

Each input module has a noise-rejection filter.

Field and system levels are electrically isolated.

## Data

### Technical data

Number of digital inputs	8
Total number of channels (module)	8
Signal type	Digital
Signal type (voltage)	24 VDC

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Sensor connection	8 x (1-wire)
Input characteristic	high-side switching
Input filter (digital)	0.2 ms
Input current per channel for signal (1) typ.	2.8 mA
Voltage range for signal (0)	-3 ... +5 VDC
Voltage range for signal (1)	15 ... 30 VDC
Input data width (internal) max.	8 bits
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	17 mA
Supply voltage (field)	24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact)
Isolation	500 V system/field
Indicators	LED (A-D) green: Status DI 1, DI 3, DI 5, DI 7; LED (E-H) green: Status DI 2, DI 4, DI 6, DI 8
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
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	8 ... 9 mm / 0.31 ... 0.35 inches

### Physical data

Width	12 mm / 0.472 inches
Height	100 mm / 3.937 inches
Depth	67.8 mm / 2.669 inches
Depth from upper-edge of DIN-rail	60.6 mm / 2.386 inches

### Mechanical Data

Mounting type	DIN-35 rail
Pluggable connector	fixed

### Material data

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



Housing material	Polycarbonate; polyamide 6.6
Fire load	1.192 MJ
Weight	47.8 g
Conformity marking	CE

## Environmental requirements

Ambient temperature (operation)	0 ... +55 °C
Ambient temperature (storage)	-40 ... +85 °C
Protection type	IP20
Pollution degree	2 per IEC 61131-2
Operating altitude	0 ... 2000 m / 0 ... 6562 ft
Mounting position	horizontal (standing/lying); vertical
Relative humidity (without condensation)	95 %
Vibration resistance	4g per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	per EN 61000-6-2, marine applications
EMC emission of interference	per EN 61000-6-4, 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

Product Group	15 (I/O System)
eCl@ss 10.0	27-24-26-04
eCl@ss 9.0	27-24-26-04
ETIM 8.0	EC001599
ETIM 7.0	EC001599
Recupel Type	
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454392857
Customs tariff number	85389099990




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

## Environmental Product Compliance



RoHS Compliance Status Compliant, No Exemption

## Approvals / Certificates



### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>EAC</b> Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C-DE.AM02.B.00087/19
	<b>KC</b> National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-DIM750
	<b>UL</b> Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

### Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	<b>EU-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-
	<b>UK-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-







### Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	22-2219060
	<b>BSH</b> Bundesamt fuer Seeschifffahrt und Hydrographie	-	1104

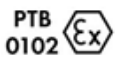



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	<b>BV</b> Bureau Veritas S.A.	-	13453/E0 BV
	<b>DNV</b> DNV GL SE	DNV-CG-0339, Aug. 2021	TAA0000194
	<b>KR</b> Korean Register of Shipping	-	KR HMB05880-AC001
	<b>LR</b> Lloyds Register EMEA	-	LR22180952TA
	<b>PRS</b> Polski Rejestr Statków	-	TE/2236/880590/19
	<b>RINA</b> RINA Germany GmbH	-	ELE343521XG001

## Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
	<b>ATEX</b> TUEV Nord Cert GmbH	EN 60079-0	TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc)
	<b>CCCEX</b> CQST/CNEX	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
	<b>EAC</b> Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02.B.00163 /19 (2Ex nA IIC T4 Gc X)
	<b>IECEX</b> TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 14.0035 X (Ex ec IIC T4 Gc)
	<b>INMETRO</b> ..	IEC 60079-0	BR-Ex_TÜV 12.1297 X

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



TÜV Rheinland do Brasil Ltda.



UKEx  
WAGO GmbH & Co. KG

EN 60079-0

UKCA\_WAGO22UKEX003X\_ec



UL  
Underwriters Laboratories Inc. (HAZARDOUS  
LOCATIONS)








UL 121201

E198726 Sec.1

## Optional accessories



### Shield termination

#### Shield clamping saddles

	<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 ... 24 mm	<a href="http://www.wago.com/790-124">www.wago.com/790-124</a>
	<b>Item no.: 790-108</b> Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm	<a href="http://www.wago.com/790-108">www.wago.com/790-108</a>
	<b>Item no.: 790-140</b> Shield clamping saddle; diameter of compatible conductor	<a href="http://www.wago.com/790-140">www.wago.com/790-140</a>
	<b>Item no.: 790-216</b> Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm	<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>
	<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>

### Carrier rail

#### Mounting accessories






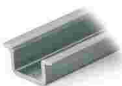



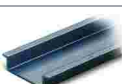
	<b>Item no.: 210-197</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-197">www.wago.com/210-197</a>
	<b>Item no.: 210-198</b> Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored	<a href="http://www.wago.com/210-198">www.wago.com/210-198</a>

**Item no.: 210-504**





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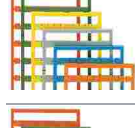
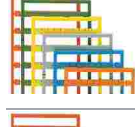


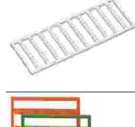
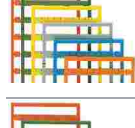

	Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-504">www.wago.com/210-504</a>
	<b>Item no.: 210-505</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored	<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; silver-colored	<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; 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>

**Marking accessories**

Marker carrier		
	<b>Item no.: 750-103</b> Group marker carrier	<a href="http://www.wago.com/750-103">www.wago.com/750-103</a>
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>

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



	<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>
	<b>Item no.: 248-501</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white	<a href="http://www.wago.com/248-501">www.wago.com/248-501</a>
	<b>Item no.: 248-501/000-017</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green	<a href="http://www.wago.com/248-501/000-017">www.wago.com/248-501/000-017</a>
	<b>Item no.: 248-501/000-005</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red	<a href="http://www.wago.com/248-501/000-005">www.wago.com/248-501/000-005</a>

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



**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)

Group marker carrier



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

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

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)

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

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



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)

### Supply module

Supply module



**Item no.: 750-601**

Power Supply; 24 VDC; fuse holder

[www.wago.com/750-601](http://www.wago.com/750-601)



**Item no.: 750-610**

Power Supply; 24 VDC; fuse holder; Diagnostics

[www.wago.com/750-610](http://www.wago.com/750-610)



**Item no.: 750-602**

Power Supply; 24 VDC

[www.wago.com/750-602](http://www.wago.com/750-602)



**Item no.: 750-612**

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

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

### Downloads

#### Documentation

##### Manual

System Manual WAGO I/O System 750/753 Decentralized Automation Technology	V 3.3.3 Aug 29, 2023	pdf 8.7 MB	Download
Product Manual 8-channel, 24VDC, 0.2ms 1-conductor connection; high-side switching	V 2.0.0 Sep 7, 2022	pdf 2.6 MB	Download
System Manual Series 750/753 Online HTML		URL	Download

##### Bid Text

750-431	Feb 19, 2019	xml	Download
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750-431 doc - Datei	Jul 12, 2017	doc	25.6 kB	Download
<b>Instruction Leaflet</b>				
CCC Ex (Additional information) WAGO-I/O-SYSTEM *750-****/*	Apr 26, 2023	pdf	163.6 kB	Download
<b>System Description</b>				
Overview on WAGO-I/O-SYSTEM 750 approvals		pdf	223.5 kB	Download
750/753 Series I/O-System – General Product Information		pdf	976.2 kB	Download
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## Installation Notes

### Product family

**WAGO I/O System 750/753**

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