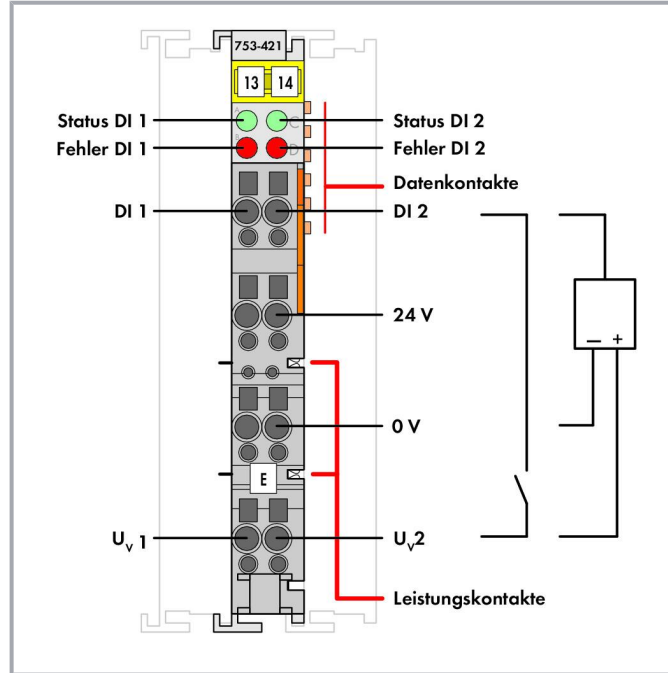
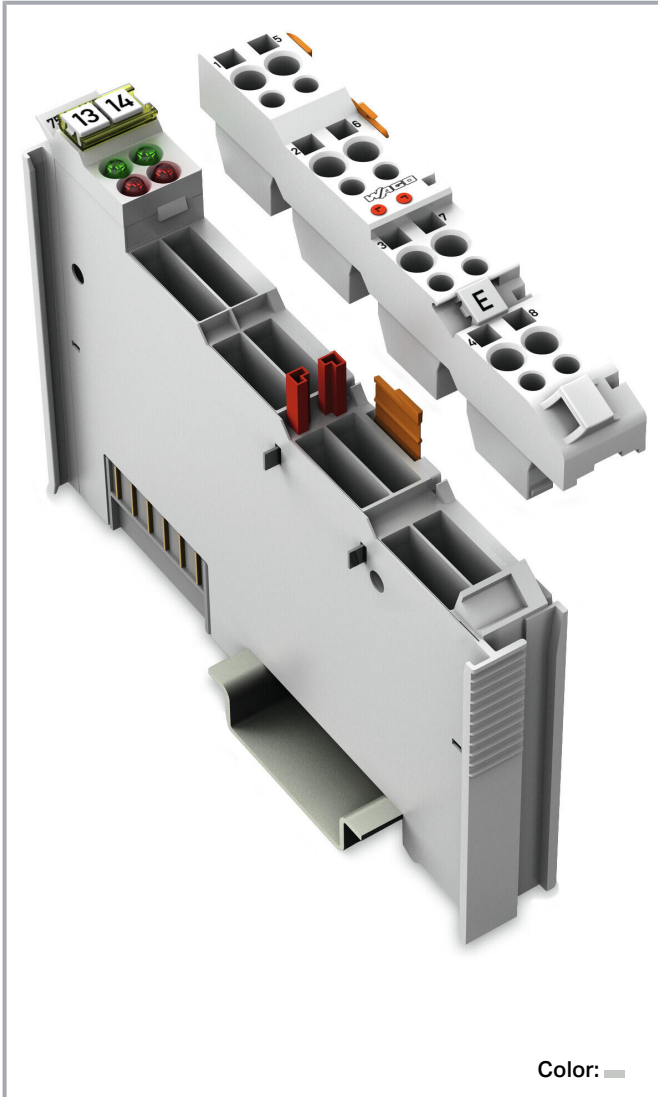


Data sheet | Item number: 753-421

2-channel digital input; 24 VDC; 3 ms; Diagnostics

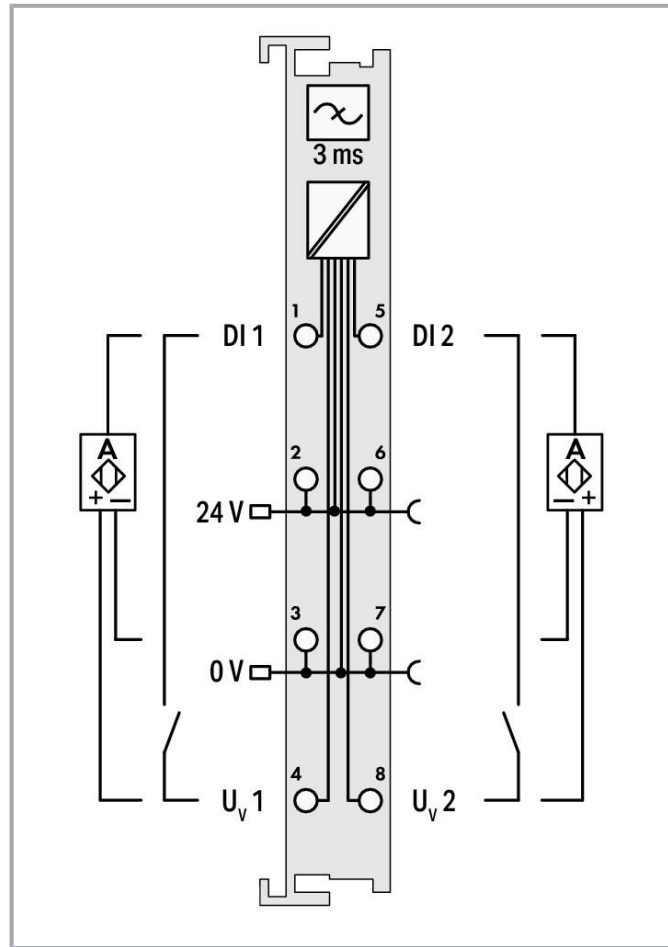
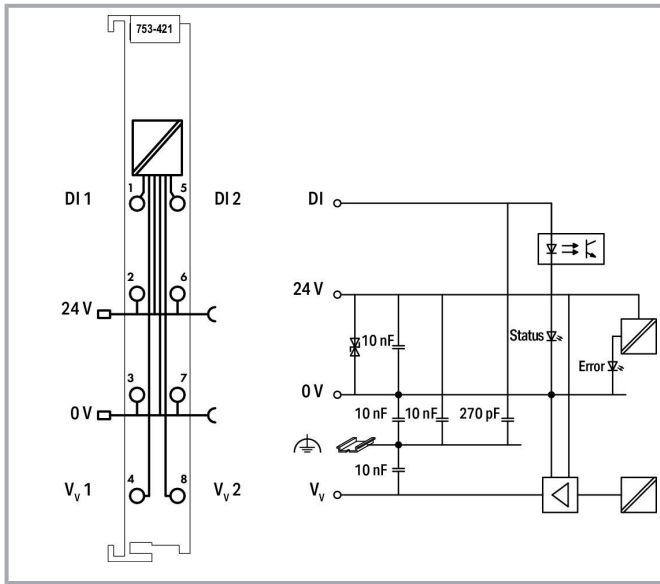
www.wago.com/753-421



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

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Item description

This digital input module receives control signals from the field side and supplies a short-circuit proof voltage to the sensors. The module transfers the control signals and other information via a fieldbus coupler to the higher-level controller.

Each input module has a noise-rejection filter.

Each sensor can be supplied separately. A short circuit to ground is indicated as an error/fieldbus failure and a message is sent to the supervisory control.

The error is canceled automatically after it has been rectified.

Field and system levels are electrically isolated.

Data

Notes

Note

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



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

Technical data

Number of digital inputs	2
Total number of channels (module)	2
Signal type	Digital Voltage
Signal type (voltage)	24 VDC
Supply voltage (sensor)	24 VDC; Each channel is supplied separately with a short-circuit-protected voltage. A short circuit to ground is indicated as an error /fieldbus failure and a message is sent to the supervisory control. The error is canceled automatically after it has been rectified.
Sensor connection	2 x (2-wire, 3-wire)
Input characteristic	high-side switching
Input filter (digital)	3 ms 3 ms
Input current per channel for signal (1) typ.	3.7 mA
Output current per channel	0.5 A
Short-circuit current	1.5 A, pulsating due to thermal overload protection
Voltage range for signal (0)	-3 ... +5 VDC
Voltage range for signal (1)	15 ... 30 VDC
Diagnostics	Short circuit, automatic acknowledgment after error rectified
Input data width (internal) max.	4 bits
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	12 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, C) green: Status DI 1, DI 2; LED (B, D) red: Error DI 1, DI 2
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®
---------------------------------------	-----------------

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



Connection type 1	Inputs/Outputs
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inches

Physical data

Width	12 mm / 0.472 inches
Height	100 mm / 3.937 inches
Depth	69.8 mm / 2.748 inches
Depth from upper-edge of DIN-rail	62.6 mm / 2.465 inches

Mechanical Data

Mounting type	DIN-35 rail
Pluggable connector	Pluggable

Material Data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	1.144 MJ
Weight	41 g
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	0 ... +55 °C
Ambient temperature (storage)	-25 ... +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 ₂ S contaminant concentration at a relative humidity 75	10 ppm

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%

Permissible SO₂ 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
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4044918937368
Customs tariff number	85389099990

Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	690e68ba-0215-4460-892c-37fe1829a6b1
SCIP notification number (Belgium)	cf312aab-40e3-4b6c-b284-ee7b8f7cef5f
SCIP notification number (Bulgaria)	7f7d90a1-0037-474b-a8d3-a13bf4d4cf00
SCIP notification number (Czech Republic)	a7a51d37-4553-436b-ac5a-63f90fdf4fcd
SCIP notification number (Denmark)	a229da12-194d-4141-bede-a5fe05bf6cab
SCIP notification number (Finland)	27fcb888-d74f-47ae-9161-7cd7fe5d1be0
SCIP notification number (France)	40a1933a-aeab-4ad4-b91f-bc1a224396aa
SCIP notification number (Germany)	1942a76c-07f2-4c7b-bc76-6d8511c51d0a
SCIP notification number (Hungary)	0fe759e0-a668-450a-8913-82771fc353e3
SCIP notification number (Italy)	02316f18-8b6f-4a97-929f-eead91b15d67

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SCIP notification number (Netherlands)	70f31585-0b8b-4257-9085-87e58bd25220
SCIP notification number (Poland)	5a2089cc-2114-45c3-9131-56013a523618
SCIP notification number (Romania)	f68942ba-b137-4184-b692-7239718335af
SCIP notification number (Sweden)	949b3597-e3c1-4e64-855f-c7b79c985c0a

Approvals / Certificates



General approvals

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

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications

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

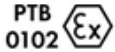



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	BV Bureau Veritas S.A.	-	13453/E0 BV
	DNV DNV GL SE	DNV-CG-0339, Aug. 2021	TAA0000194
	KR Korean Register of Shipping	-	KR HMB05880-AC001
	LR Lloyds Register EMEA	-	LR22180952TA
	PRS Polski Rejestr Statków	-	TE/2236/880590 /19
	RINA RINA Germany GmbH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

Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV_14_ATEX_148929_X (II 3 G Ex ec IIC T4 Gc)
	CCC CNEX	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
	EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02.B.00163 /19 (2Ex nA IIC T4 Gc X)
	IECEX TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 14.0035 X (Ex ec IIC T4 Gc)

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

	INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079-0	BR-Ex_TÜV 12.1297 X
	UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WAGO22UKEX003X_ec
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

Required accessories

Pluggable connector







Male connector/plug

	Item no.: 753-110 Plug	www.wago.com/753-110
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Optional accessories

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
	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
	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
	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
	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
	Item no.: 210-508 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored	www.wago.com/210-508

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



Item no.: 210-113

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

www.wago.com/210-113



Item no.: 210-118

Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

www.wago.com/210-118



Item no.: 210-112

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 www.wago.com/210-112



Item no.: 210-114

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored

www.wago.com/210-114



Item no.: 210-115

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 www.wago.com/210-115



Item no.: 210-196

Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored

www.wago.com/210-196

Shield termination

Shield clamping saddles



Item no.: 790-116

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

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



Item no.: 790-108

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

www.wago.com/790-108



Item no.: 790-140

Shield clamping saddle; diameter of compatible conductor

www.wago.com/790-140



Item no.: 790-216

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

www.wago.com/790-216



Item no.: 790-220

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

www.wago.com/790-220



Item no.: 790-208

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

www.wago.com/790-208

Marking accessories

Marker carrier



Item no.: 750-103

Group marker carrier

www.wago.com/750-103

Marker

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Item no.: 2009-145/000-006

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue /000-006

www.wago.com/2009-145

Item no.: 2009-145

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

www.wago.com/2009-145

Item no.: 2009-145/000-002

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

www.wago.com/2009-145/000-002

Item no.: 2009-145/000-007

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray /000-007

www.wago.com/2009-145

Item no.: 2009-145/000-005

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red

www.wago.com/2009-145/000-005

Item no.: 2009-145/000-012

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

www.wago.com/2009-145/000-012

Item no.: 2009-145/000-023

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

www.wago.com/2009-145/000-023

Item no.: 2009-145/000-024

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

www.wago.com/2009-145/000-024



Item no.: 248-501/000-006

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue

www.wago.com/248-501/000-006



Item no.: 248-501/000-007

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray

www.wago.com/248-501/000-007



Item no.: 248-501/000-002

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow

www.wago.com/248-501/000-002



Item no.: 248-501/000-012

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange

www.wago.com/248-501/000-012

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Item no.: 248-501

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

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



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



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



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



Item no.: 750-100

Marker card; as a DIN A4 sheet; plain

www.wago.com/750-100

Group marker carrier



Item no.: 750-106

Group marker carrier

www.wago.com/750-106

Supply module

Supply module



Item no.: 750-601

Power Supply; 24 VDC; fuse holder

www.wago.com/750-601



Item no.: 750-610

Power Supply; 24 VDC; fuse holder; Diagnostics

www.wago.com/750-610



Item no.: 750-602

Power Supply; 24 VDC

www.wago.com/750-602



Item no.: 750-612

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

www.wago.com/750-612



Item no.: 753-612

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

www.wago.com/753-612



Item no.: 753-602

Power Supply; 24 VDC

www.wago.com/753-602

System housing

System enclosure

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	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
	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
	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
	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
	Item no.: 850-825 IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20	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
	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
	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
	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
	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
	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
	Item no.: 850-834 IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20	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
	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

Pluggable connector

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

Coding



Item no.: 753-150
753 Series coding elements

www.wago.com/753-150

Downloads

Documentation

Manual

System Manual WAGO I/O System 750/753 Decentralized Automation Technology	V 3.3.0 2023 May 4	pdf 8.8 MB	Download
Product Manual 2-channel, 24VDC, 3.0ms high-side switching, with diagnostics	V 1.2.0	pdf 2.3 MB	Download
System Manual Series 750/753 Online HTML		URL	Download

Bid Text

753-421 X81 - Datei	2019 Feb 19	xml 5.1 kB	Download
753-421 doc - Datei	2017 Jul 13	doc 27.1 kB	Download

Instruction Leaflet

CCC Ex (Additional information) WAGO-I/O-SYSTEM *750-****/*	2023 Apr 26	pdf 163.6 kB	Download
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Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 Aug 18	pdf 2.2 MB	Download
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System Description

750/753 Series I/O-System – General Product Information		pdf 1.7 MB	Download
Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 789.0 kB	Download

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CAD/CAE-Data

CAD data

2D/3D Models 753-421	URL	Download
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CAE data

EPLAN Data Portal 753-421	URL	Download
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WSCAD Universe 753-421	URL	Download
------------------------	---------------------	--------------------------

ZUKEN Portal 753-421	URL	Download
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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 753-421 2-channel digital input; 24 VDC; 3 ms; Diagnostics	URL	Download
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Installation Notes

Product family

WAGO I/O System 750/753
[Show all products from the family](#)

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