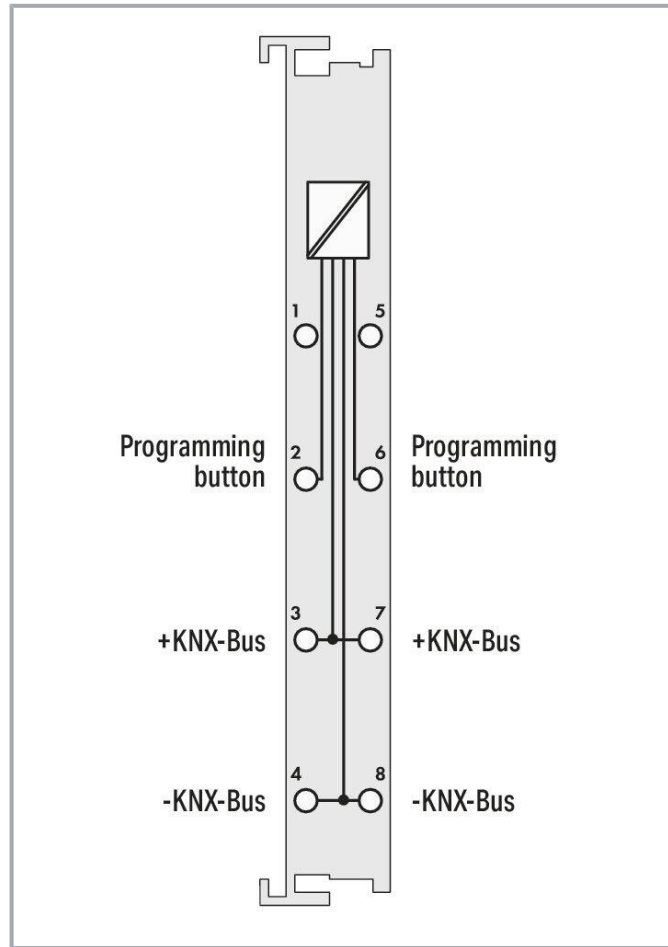
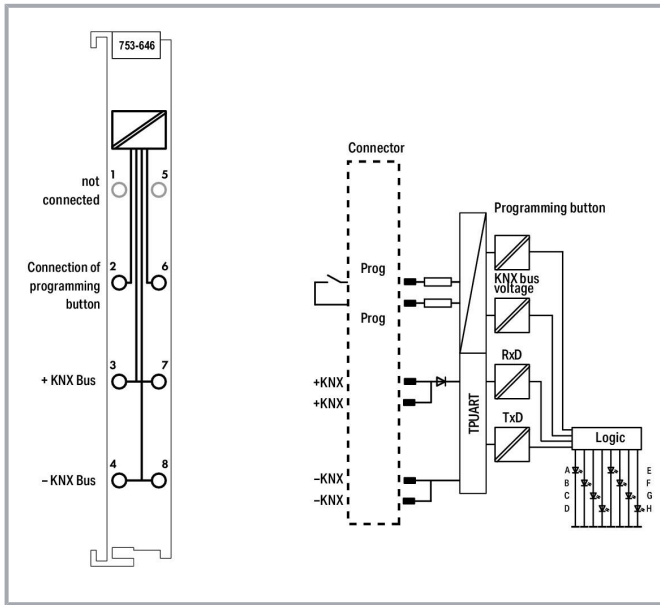


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Item description

The 753-646 KNX/EIB/TP1 Module connects to a KNX/EIB/TP1 network. This module supports two different functions:

1. Device mode: With this module, all programmable fieldbus controllers relevant for building automation can be connected to a KNX/TP1 network. In a KNX network, the module appears as a standard KNX device and is linked via ETS 3 Professional Commissioning Tool. The module supports a maximum of 253 communication objects with any DPTs, 254 group addresses and 254 associations. The application is programmed via WAGO-I/O-PRO Software. An ETS plug-in, which is included in the WAGO product database, is required so that the data from the application program can be allocated to the group addresses.

2. Router mode: When the 750-849 or 750-889 KNX IP Controller is connected to the first 753-646 KNX/EIB/TP1 Module, the device can be used as a KNXnet/IP router. The module is switched to the router mode automatically. An application program is not required for operation in router mode. Additional modules that are connected to a KNX IP Controller are addressed in device mode by the application.

WAGO's 753 Series Pluggable Connector with internally bridged contacts (3/7 and 4/8) is part of the delivery.

Both an external KNX power supply and ETS Professional Software are required to operate the KNX/EIB/TP1 Module.

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



Data

Technical data

Device specification	KNX/TP1 bus specification: 1.0
Device-specific	Number of group addresses: 254; Number of communication objects: 253; Number of associations: 254
Current consumption (typ.)	5 mA (KNX)
Baud rate	9.6 kBd (KNX)
Data width	24 bytes
Power supply	KNX: via KNX power supply unit
Commissioning	WAGO-I/O-PRO V2.3
Advanced diagnostics	via FbKNX_Master_646 function block (device mode)
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	25 mA
Isolation	2.5 kV (rms)
Indicators	LED (A, C, E, H) green: Router mode, Data transfer KBus, Device mode, KNX bus voltage; LED (B, F, G) red: KNX programming mode, Buffer overflow, Internal error; LED (D) yellow: Data transfer KNX

Connection data

Connection technology: inputs/outputs	8 x CAGE CLAMP®
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
Connection point (other) designation	Programming button; Bridge 2/6

Physical data

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

Mechanical Data

Mounting type	DIN-35 rail
Pluggable connector	Pluggable

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



Material Data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	1.044 MJ
Weight	55.9 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 61000-6-3, 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
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data

Product Group	15 (I/O System)
eCl@ss 10.0	27-24-26-05
eCl@ss 9.0	27-24-26-05
ETIM 8.0	EC001601
ETIM 7.0	EC001601
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4045454778033

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Customs tariff number	8538909990
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Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 7439-92-1
REACH Candidate List Substance	Diboron trioxide Lead Lead monoxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	c4a73850-53c4-4d53-8fe0-f75ac132bdbf
SCIP notification number (Belgium)	5275670d-2bae-4c07-9d73-57cef6482cac
SCIP notification number (Bulgaria)	94a656e9-db64-4976-9e8b-110852da7f08
SCIP notification number (Czech Republic)	e0c806f4-4fff-428d-b625-3e4545fd06bf
SCIP notification number (Denmark)	486acf93-c004-4553-99b7-0067b7741d41
SCIP notification number (Finland)	bd569f0c-cfc2-46e3-85c8-4d65e22ad594
SCIP notification number (France)	aa90f140-7c3a-413e-9eba-c0faaf9cbcea
SCIP notification number (Germany)	1143e9db-6937-490a-a5a0-8dff86bbe66
SCIP notification number (Hungary)	c4edfbc6-7c5d-4db0-9515-f5f7ebe382e7
SCIP notification number (Italy)	97801e87-e097-4c88-b142-b43d0a13ddff
SCIP notification number (Netherlands)	c4a4ffaa-c5b8-4074-bc50-c805f00ed673
SCIP notification number (Poland)	663ff08d-6c29-44cc-bf3a-6a1a55d773c7
SCIP notification number (Romania)	d7daaa34-ef2a-49e9-b37b-811ffb0142e8
SCIP notification number (Sweden)	5f5a5cde-0874-4869-883b-e7e523237bbe

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-MSM750

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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
	BV Bureau Veritas S.A.	-	30389/B1 BV
	DNV DNV GL SE	DNV-CG-0339,Aug.2021	TAA0000194
	LR Lloyds Register EMEA	-	LR22180952TA
	PRS Polski Rejestr Statków	-	TE/2236/880590 /19
	RINA	-	ELE343521XG001

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RINA Germany GmbH

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
	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

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Marking accessories

Marker carrier		
	Item no.: 750-103 Group marker carrier	www.wago.com/750-103
Marker		
	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	www.wago.com/2009-145/000-006
	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	www.wago.com/2009-145/000-007
	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

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



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



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

Group marker carrier



Item no.: 750-107
Group marker carrier

www.wago.com/750-107

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

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

Pluggable connector

Coding



Item no.: 753-150
753 Series coding elements

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



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

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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

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 KNX/EIB/TP1 Module	V 2.0.0 2022 Dec 15	pdf 3.6 MB	Download
Product Manual WAGO ETS Plug-in (Product Data Base) for configuring WAGO KNX devices	V 3.0.1	pdf 2.9 MB	Download
System Manual Series 750/753 Online HTML		URL	Download

Bid Text

753-646 X81 - Datei	2019 Feb 19	xml 6.6 kB	Download
753-646 doc - Datei	2018 Jun 28	doc 31.2 kB	Download
ausschreiben.de 753-646		URL	Download

System Description

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

Additional Information

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

Application Notes

Application Note CoDeSys 2.3

KNX Function Macros	V 2020-05-12	zip	Download
Based on the library KNX_02.lib WAGO provides different function macros out of the building automation.	2020 May 12	120.6 MB	

Application Note Library KNX_02.lib	09.11.2016	zip	Download
This quick start guide outlines the necessary steps for creating an application with the KNX/EIB/TP1 module.	2016 Nov 9	726.8 kB	

Application Note ThebenKNX_DALI	25.08.2016	zip	Download
Connecting the Theben thePrema P360 KNX Presence Detector to the WAGO I/O-System	2016 Aug 25	745.2 kB	

Application Note KNX StarterKit3	13.11.2014	zip	Download
This Application Note includes the commissioning instructions for the KNX IP StarterKit 3.	2014 Nov 13	30.9 MB	

Application Note e!COCKPIT

eCOCKPIT Application Note WagoAppKNX	1.0.3	pdf	Download
This quick start guide outlines the necessary steps for creating an application with the KNX/EIB/TP1 module.	2021 Dec 6	1.1 MB	

Libraries

Library

Libraries for Building Automation CODESYS 2.3	2023-01-16	zip	Download
This zip file contains WAGO I / O PRO libraries for building automation. Blocks are available for the following applications: - DALI - DALI sensors - DALI Color Control - DALI Emergency Lighting - Enocean - SMI - HVAC / HVAC functions - General building functions such as blinds, dimmers, impulse switches - Scheduler - KNX function blocks - BACnet - WINSTA blind box - DMX - Elsner weather station - M-Bus, MBus - MP-Bus, MPBus - Romutec handset - Thermokon Thanos room thermostat - Thermokon WRF04 room thermostat - Thermokon WRF06 room thermostat - Thermokon WRF07 room thermostat - Thermokon WRF08 room thermostat - 3-phase Power measuring module 750-493 - LON - Grundfos pumps with GENibus interface - EAP Modbus® room control units - Conversion of color formats -	2023 Jan 16	44.8 MB	

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



"robutecheasy" modules - Schüco TipTronic group control units - Weather station
Thies

e!COCKPIT libraries

e!COCKPIT Library Description WagoAppKNX	1.0.4.7 2021 Aug 6	pdf 3.2 MB	Download
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Engineering-Software

Product database

WAGO product database for KNX module 753-646 .	2.0.367.581 2016 Nov 26	zip 2.3 MB	Download
WAGO product database for KNX Router 750-889 / 750-849 + 753-646 .	2.0.373.598 2016 Nov 26	zip 41.4 kB	Download

CAD/CAE-Data

CAD data

2D/3D Models 753-646	URL	Download
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CAE data

WSCAD Universe 753-646	URL	Download
ZUKEN Portal 753-646	URL	Download
EPLAN Data Portal 753-646	URL	Download

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 753-646 KNX/EIB/TP1 Interface	URL	Download
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Installation Notes

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

Data sheet | Item number: 753-646

www.wago.com/753-646



Product family

WAGO I/O System 750/753

[Show all products from the family](#)

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