Color:

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

Do you have any questions about our products?
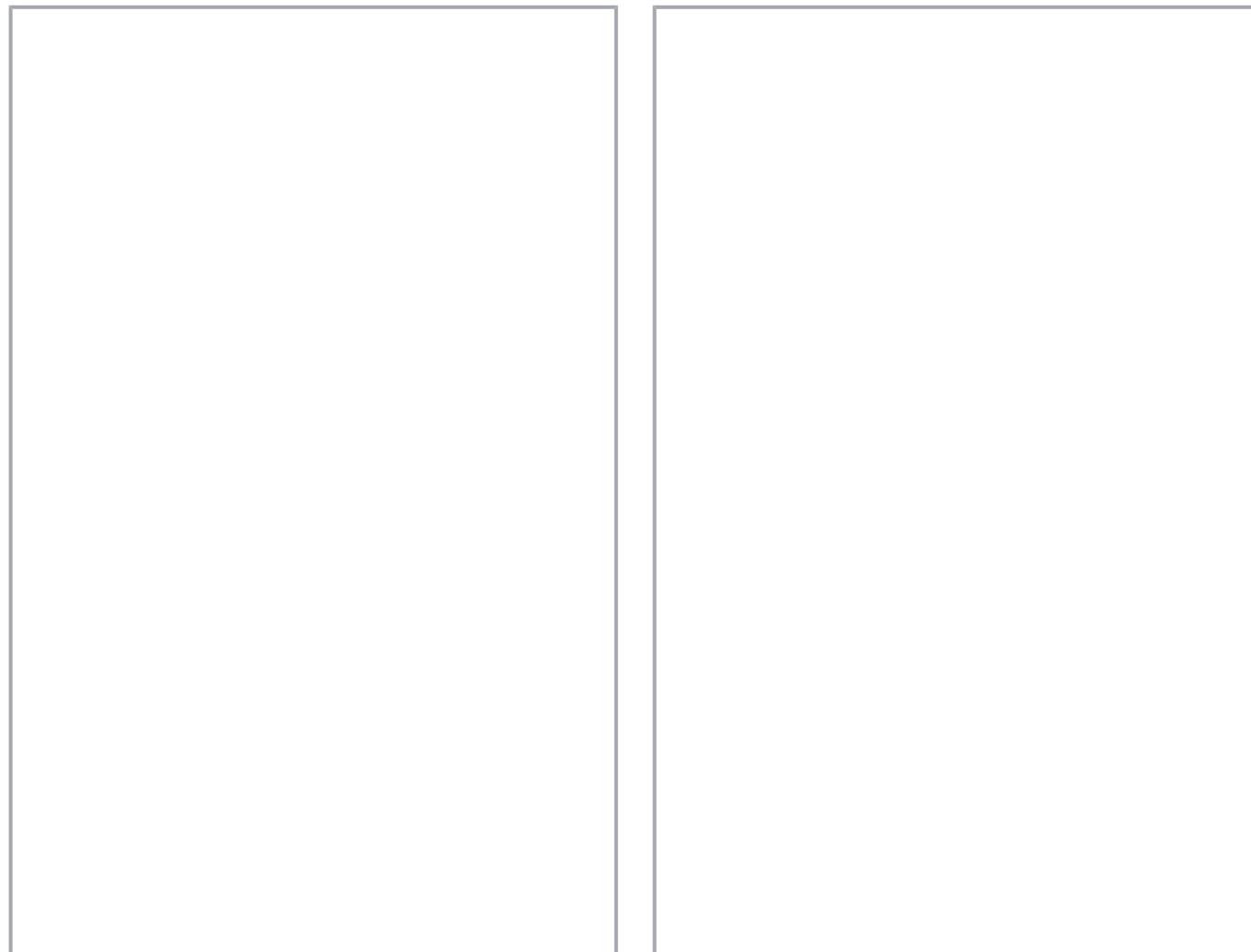
We are always happy to take your call at +49 (571) 887-44222.

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.

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

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, local bus, device mode, KNX bus voltage; LED (B, F, G) red: KNX programming mode, buffer overflow, internal error; LED (D) yellow: KNX data transfer

Connection data

Connection technology: inputs/outputs	8 x CAGE CLAMP®
Connection type 1	Inputs/Outputs
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 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

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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_2S 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
Recupel Type	
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE

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

GTIN	4045454778033
Customs tariff number	85389099990

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-a5a0-8dff86fbbe66
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-

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

MSM750

UL	UL 508		E175199
Underwriters Laboratories Inc. (ORDINARY LOCATIONS)			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	-	22-2219060
	American Bureau of Shipping		
	BSH	-	1104
	Bundesamt fuer Seeschifffahrt und Hydrographie		
	BV	-	30389/C0 BV
	Bureau Veritas S.A.		
	DNV	DNV-CG-0339,Aug.2021	TAA0000194
	DNV GL SE		
	LR	-	LR22180952TA
	Lloyds Register EMEA		
	PRS	-	TE/2236/880590
	Polski Rejestr Statków		/19
	RINA	-	ELE343521XG001
	RINA Germany GmbH		

Optional accessories

Marking accessories

Marker carrier		
Item no.: 750-103		www.wago.com/750-103
Group marker carrier		

Marker		
Item no.: 2009-145/000-006		www.wago.com/2009-145
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue		/000-006
Item no.: 2009-145		www.wago.com/2009-145
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white		

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

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
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

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

Group marker carrier	
Item no.: 750-107	www.wago.com/750-107
Group marker carrier	

Carrier rail

Mounting accessories

Item no.: 210-197	www.wago.com/210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored	
Item no.: 210-198	www.wago.com/210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored	
Item no.: 210-504	www.wago.com/210-504
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored	
Item no.: 210-505	www.wago.com/210-505
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored	
Item no.: 210-506	www.wago.com/210-506
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored	
Item no.: 210-508	www.wago.com/210-508
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored	
Item no.: 210-113	www.wago.com/210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	
Item no.: 210-118	www.wago.com/210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	
Item no.: 210-112	www.wago.com/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	
Item no.: 210-114	www.wago.com/210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	
Item no.: 210-115	www.wago.com/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	
Item no.: 210-196	www.wago.com/210-196
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	

System housing

System enclosure

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

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

Shield termination

Shield clamping saddles

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

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

Pluggable connector

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 3.3.3 2023 年8月29日	pdf 8.7 MB	Download
Product Manual KNX/EIB/TP1 Module	V 2.0.0 2022 年12月15日	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 年2月19日	xml 6.6 kB	Download
753-646	2018 年6月28日	doc	Download

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doc - Datei			31.2 kB	
ausschreiben.de 753-646			URL	Download

System Description

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

Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 年8月18日	pdf 2.2 MB	Download

Application Notes

Application Note CoDeSys 2.3

KNX Function Macros Based on the library KNX_02.lib WAGO provides different function macros out of the building automation.	V 2020-05-12 2020 年5月12日	zip 120.6 MB	Download
Application Note Library KNX_02.lib This quick start guide outlines the necessary steps for creating an application with the KNX/EIB/TP1 module.	09.11.2016 2016 年11月9日	zip 726.8 kB	Download
Application Note ThebenKNX_DALI Connecting the Theben thePrema P360 KNX Presence Detector to the WAGO I/O-System	25.08.2016 2016 年8月25日	zip 745.2 kB	Download
Application Note KNX StarterKit3 This Application Note includes the commissioning instructions for the KNX IP StarterKit 3.	13.11.2014 2014 年11月13日	zip 30.9 MB	Download

Application Note e!COCKPIT

eCOCKPIT Application Note WagoAppKNX This quick start guide outlines the necessary steps for creating an application with the KNX/EIB/TP1 module.	1.0.3 2021 年12月6日	pdf 1.1 MB	Download

Libraries

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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 - "robutecheasy" modules - Schüco TipTronic group control units - Weather station Thies	2023 年1月16日	44.8 MB	

e!COCKPIT libraries

e!COCKPIT Library Description WagoAppKNX	1.0.4.7	pdf	Download
	2021 年8月6日	3.2 MB	

Engineering-Software

Product database

WAGO product database for KNX module 753-646 .	2.0.367.581	zip	Download
	2016 年11 月26 日	2.3 MB	
WAGO product database for KNX Router 750-889 / 750-849 + 753-646 .	2.0.373.598	zip	Download
	2016 年11 月26 日	41.4 kB	

CAD/CAE-Data

CAD data

2D/3D Models 753-646		URL	Download

CAE data

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

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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 753-646
KNX/EIB/TP1 Interface

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Installation Notes

Product family

WAGO I/O System 750/753
Show all products from the family

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