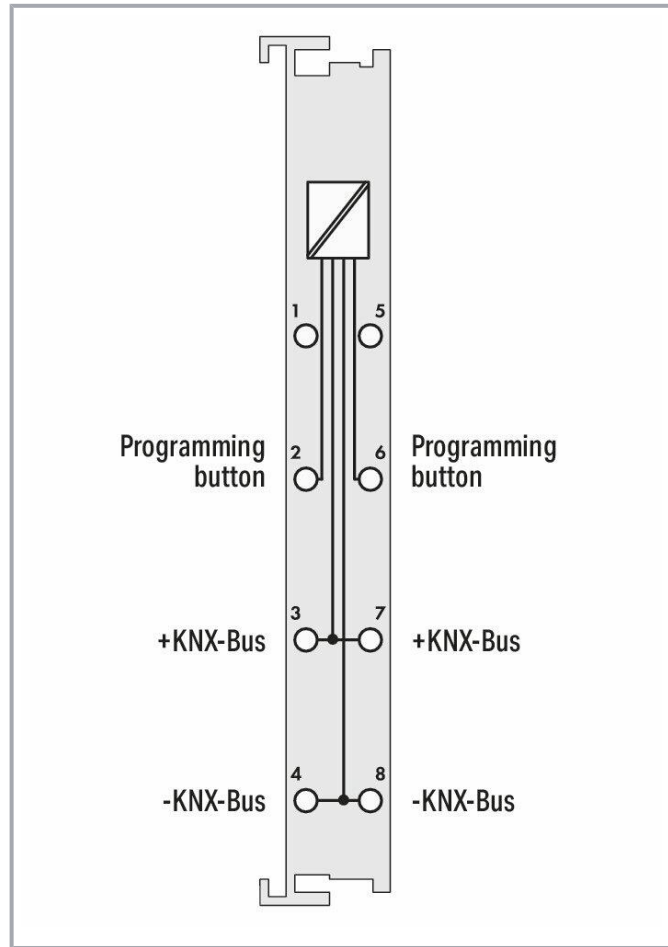
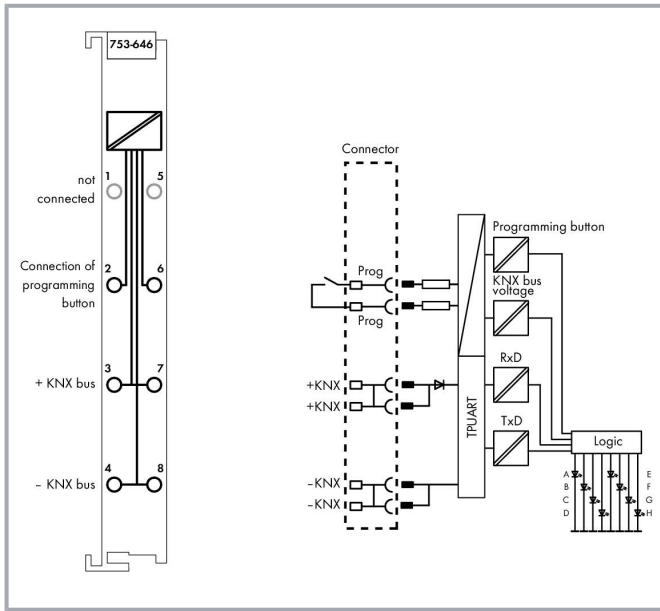


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WAGO GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

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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
Power 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
Power consumption (5 V system supply)	25 mA
Isolation	2.5 kV (rms)

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 inch
Connection point (other designation)	Programming button; Bridge 2/6

Physical data

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

Mechanical data

Mounting type	DIN-35 rail
Wiring interface	Pluggable

Material data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6

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

Fire load	1.029 MJ
Weight	55.9 g
Conformity marking	CE

Environmental requirements


Surrounding air temperature (operation)	0 ... 55 °C
Surrounding air temperature (storage)	-25 ... 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	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 (Remote I/O)
PU (SPU)	1 Stück
Packaging type	box
Country of origin	DE
GTIN	4045454778033
Customs tariff number	85389099990

Approvals / Certificates


Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C-DE.AM02. B.00087 /19


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⊗	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP- REM-W43- MSM750
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Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG1821926
	BV Bureau Veritas S.A.	-	30389/B1 BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAA0000194
	LR Lloyds Register EMEA	-	02/20026 (E6)
	NK Nippon Kaiji Kyokai	-	TA17255M
	PRS Polski Rejestr Statków	-	TE/2236 /880590/19
	RINA RINA Germany GmbH	-	ELE066419XG

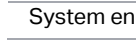












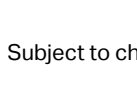
UL-Approvals

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

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Optional accessories

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
	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	

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

www.wago.com/850-836



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

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
	Item no.: 790-124	www.wago.com/790-124

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

	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
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Marking accessories

Marker carrier

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

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WAGO GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
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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



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

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WAGO GmbH & Co. KG

Hansastr. 27

32423 Minden

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Downloads Documentation

Manual

System Manual WAGO I/O System 750 / 753 Decentralized Automation Technology	V 3.0.3 17-Nov-2021	pdf 6.6 MB	Download
WAGO ETS Plug-in (Product Data Base) for configuring WAGO KNX devices	V 3.0.1	pdf 2.9 MB	Download
KNX/EIB/TP1 Module Router mode	V 1.1.0	pdf 1.9 MB	Download
KNX/EIB/TP1 Module Device mode	V 1.2.0	pdf 1.4 MB	Download
System Manual Series 750/753 Online HTML		URL	Download

Bid Text

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

System Description

Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 780.2 kB	Download
750/753 Series I/O-System – General Product Information		pdf 1.7 MB	Download
Use in Hazardous Environments Term definition, marking and installation regulations	V 1.0.0	pdf 1.0 MB	Download

Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download
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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.	12-May-2020	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.	09-Nov-2016	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	25-Aug-2016	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.	13-Nov-2014	30.9 MB	

Application Note e!COCKPIT

eCOCKPIT Application Note WagoAppKNX	2019-09-09	pdf	Download
This quick start guide outlines the necessary steps for creating an application with the KNX/EIB/TP1 module.	09-Sep-2019	1.6 MB	

Libraries

Library

Libraries for Building Automation CODESYS 2.3	2021-11-12	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	12-Nov-2021	75.4 MB	

e!COCKPIT libraries

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WAGO GmbH & Co. KG
 Hansastr. 27
 32423 Minden
 Phone: +49571 887-0 | Fax: +49571 887-169
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e!COCKPIT Library Description WagoAppKNX	1.0.4.7 06-Aug-2021	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 26-Nov-2016	zip 2.3 MB	Download
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WAGO product database for KNX Router 750-889 / 750-849 + 753-646	2.0.373.598 26-Nov-2016	zip 41.4 kB	Download
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CAD/CAE-Data

CAD data

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

WSCAD Universe 753-646		URL	Download
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ZUKEN Portal 753-646		URL	Download
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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		URL	Download
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Installation Notes

Product family

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

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