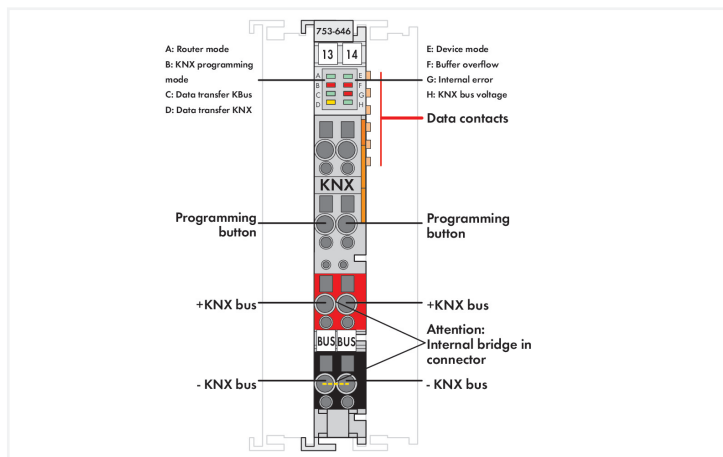
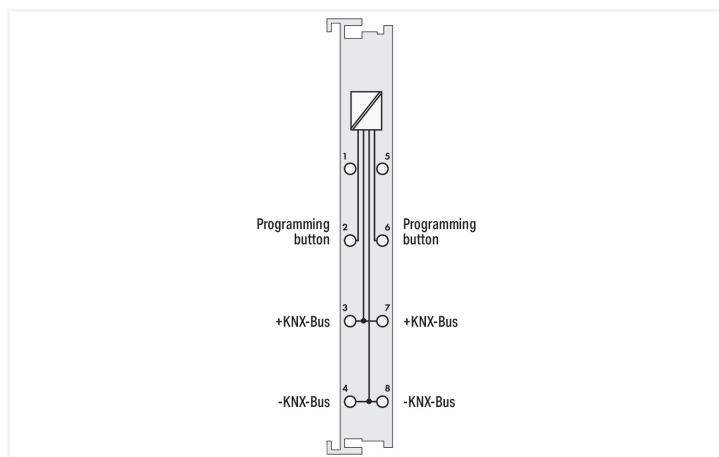
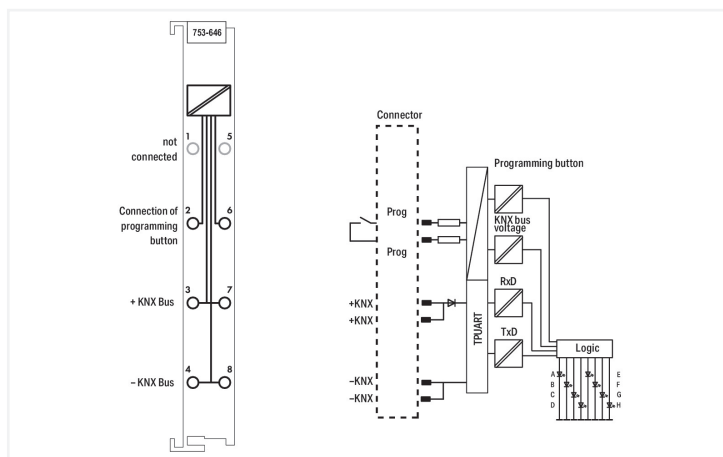




Color: ■ light gray



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.



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)	
Transmission rate	9.6 kBd (KNX)	
Data width	24 bytes	
Supply voltage	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: I/O	8 x CAGE CLAMP®	
Connectable conductor materials	Copper	
Connection type	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	

Material data		
Color	light gray	
Housing material	Polycarbonate; polyamide 6.6	
Fire load	0.864 MJ	
Weight	55.9 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 left, horizontal right, horizontal top, horizontal bottom, vertical top and vertical bottom
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)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454778033
Customs tariff number	85389099990

Product Classification	
UNSPSC	32151705
eCl@ss 10.0	27-24-26-05
eCl@ss 9.0	27-24-26-05
ETIM 9.0	EC001604
ETIM 8.0	EC001601
ECCN	NO US CLASSIFICATION

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-f75ac132bdfb
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-a5a0-8dff86fbb66
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



Environmental Product Compliance	
SCIP notification number (Romania)	d7daaa34-ef2a-49e9-b37b-811ffb0142e8
SCIP notification number (Sweden)	5f5a5cde-0874-4869-883b-e7e523237bbe

Approvals / Certificates

General approvals

Declarations of conformity and manufacturer's declarations



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-MSM750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Protocol and fieldbus specific certificates





Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	22-2219060
BSH Bundesamt fuer Seeschifffahrt und Hydrographie	-	1104
BV Bureau Veritas S.A.	-	30389/C0 BV
DNV DNV GL SE	DNV-CG-0339,Aug.2021	TAA0000194
LR Lloyds Register EMEA	-	LR22180952TA
PRS Polski Rejestr Statków	-	TE/1101/880590/23
RINA RINA Germany GmbH	-	ELE343521XG001



Approval	Standard	Certificate Name
KNX KNX Association cvba	-	61/7946/07; 61/8316/08; 61/8317/08



Downloads			
Environmental Product Compliance			
Compliance Search			
Environmental Product Compliance 753-646			↓

Documentation			
Manual		System Description	
Manual WAGO KNX DCA (Device Control App)	V 1.0.0 19.03.2025	pdf 4696.07 KB	↓
Product Manual WAGO ETS Plug-in (Product Data Base)	V 3.0.1	pdf 2808.44 KB	↓
System Manual Series 750/753			↓
Product Manual KNX/ EIB/TP1 Module	V 2.0.0 15.12.2022	pdf 3538.00 KB	↓
		750/753 Series I/O-System – General Product Information	pdf 953.35 KB ↓
		Overview on WAGO-I/O-SYSTEM 750 approvals	pdf 770.48 KB ↓

Additional Information			
WAGO KNX Concept	V 1.1.1	pdf 2991.23 KB	↓

Bid Text			
753-646	19.02.2019	xml 6.44 KB	↓
753-646	28.06.2018	doc 30.50 KB	↓
ausschreiben.de 753-646			↓

Application Notes			
Application Note CoDeSys 2.3		Application Note e!COCKPIT	
KNX Function Macros	V 2020-05-12 12.05.2020	eCOCKPIT Application Note WagoAppKNX	1.0.3 06.12.2021 pdf 1109.70 KB ↓
Application Note Library KNX_02.lib	09.11.2016 09.11.2016		
Application Note ThebenKNX_DALI	25.08.2016 25.08.2016		
Application Note KNX StarterKit3	13.11.2014 13.11.2014		



CAD/CAE-Data			
CAD data		CAE data	
2D/3D Models 753-646		EPLAN Data Portal 753-646	
		WSCAD Universe 753-646	
		ZUKEN Portal 753-646	

Libraries			
Plugin		Product database	
WAGO KNX DCA (Device Control App)	1.1.0.0 11.03.2025	zip 5472.88 KB	
		WAGO product database for KNX Router 750-889 / 750-849 + 753-646	2.0.373.598 26.11.2016 zip 40.47 KB
		WAGO product database for KNX module 753-646	2.0.367.581 26.11.2016 zip 2199.81 KB
e!COCKPIT libraries		Library	
e!COCKPIT Library Description WagoAppKNX	1.0.5.0 29.09.2023	pdf 3289.96 KB	
		Libraries for Building Automation CODESYS 2.3	2025-01-30 30.01.2025 zip 71441.83 KB

1 Compatible Products
1.1 Optional Accessories
1.1.1 DIN-rail
1.1.1.1 Mounting accessories

 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	 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	 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	 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
 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	 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	 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	 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
 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	 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	 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	 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



1.1.2 Marking

1.1.2.1 Group marker carrier



[Item No.: 750-107](#)
Group marker carrier

1.1.2.2 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

[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

[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

[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

[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

[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

[Item No.: 2009-145](#)
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

[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



[Item No.: 248-501/000-006](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue

[Item No.: 248-501/000-007](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray

[Item No.: 248-501/000-023](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green

[Item No.: 248-501/000-017](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green



[Item No.: 248-501/000-012](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange

[Item No.: 248-501/000-005](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red

[Item No.: 248-501/000-024](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet

[Item No.: 248-501](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



[Item No.: 248-501/000-002](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow



1.1.2.3 Marker carrier



[Item No.: 750-103](#)
Group marker carrier

1.1.3 Pluggable connector

1.1.3.1 Coding



[Item No.: 753-150](#)
753 Series coding elements



1.1.4 Shield termination

1.1.4.1 Shield clamping saddles



Item No.: 790-108
Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm



Item No.: 790-208
Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm



Item No.: 790-116
Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm



Item No.: 790-216
Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm



Item No.: 790-124
Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm



Item No.: 790-220
Shield clamping saddle; 30 mm wide; 6 ... 20 mm



Item No.: 790-140
Shield clamping saddle; diameter of compatible conductor

1.1.5 System enclosure

1.1.5.1 System enclosure



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



Item No.: 850-826
IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-827
IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-828
IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



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



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



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



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



Item No.: 850-835
IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-836
IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-814/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate



Item No.: 850-815/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate



Item No.: 850-816/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate



Item No.: 850-817/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate