

USB-KNX Interface

OCI702



USB-KNX interface with cables and service bag

The USB-KNX interface OCI702 serves to provide a USB-KNX connection to access tools from a Microsoft Windows PC to a KNX network or individual device. It consists of the OCI702 service interface as well as several connection cables and accessories including cable ties and a service bag.

Features

- USB - KNX connection to access tools from a Microsoft® Windows® PC (standard USB port) to KNX bus
- Pluggable interface to PC's USB port
- USB powered
- Provides power to the KNX bus of 25 mA, DC 29 V
- Supports long frames of up to 64 bytes
- Compatible with software tools ETS3 (or later), KNX EITT, ACS V10 (or later) and Desigo™ TRA tools.

Use

The interface supports, together with the appropriate PC software, device commissioning and servicing with KNX communication, for example, from the following ranges:

- Synco™ 700 controllers and room devices
- KNX room thermostats RDF..., RDG..., RDU341
- Individual room controllers RXB... / RXL...
- Synco™ living central apartment units QAX9...
- Desigo™ TRA
- GAMMA devices

Technical design



The OCI702 service interface provides two connection plugs with two LED indicators.



OCI702 service interface

LED indicators

Two LED indicators, labeled  and , indicate the operational state.

LED	Color and status		Indication
	Green	ON	USB power on
		Flashes	Data exchange between service interface and PC
	Green	ON	Service interface is connected to KNX device
		Flashes	Data exchange between service interface and device
	Red	ON *)	Bus power overload
		Flashes	Jack plug is not fully plugged in

*) In this case, an additional KNX bus power supply is required to power the KNX bus if the LED is permanently red.

Interfaces

USB	Connection plug Type B for USB cable
KNX	Connection plug RJ45 for KNX connection cable

NOTICE! The interfaces on the OCI702 are galvanically separated.

USB cable

The length of USB cable is 0.2 m. The USB port connecting the PC is USB 2.0, also compatible with USB 3.0, Type A. The USB port connecting the interface is USB Type B.



KNX power switch

The service interface includes a power supply, providing 25 mA, DC 29 V power to the KNX bus. The KNX bus power supply can be manually switched on and off using the slider switch on the side of the interface (default position: off).

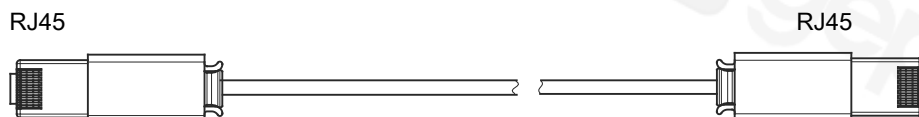
KNX connection cable

Three KNX connection cables (3 m each) provide three different connectors to the KNX network or KNX device:

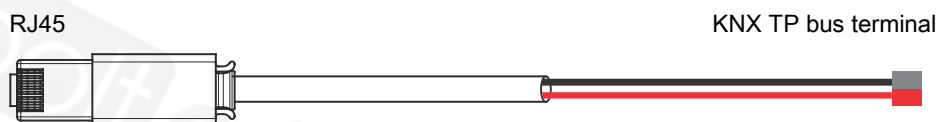
- Jack plug – 2.5 mm connector (Desigo™ TRA)



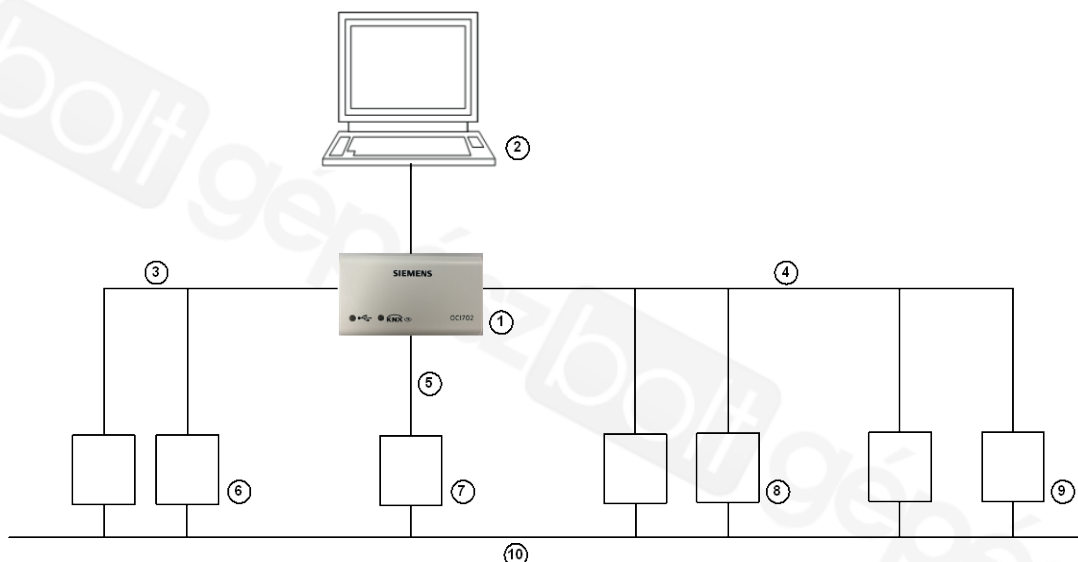
- RJ45 connector (Synco™ 700)



- KNX TP bus terminal



Communication connections



Communication connections

1	USB-KNX Interface	2	PC with ACS/ETS
3	Jack plug 2.5 mm	4	KNX bus terminal
5	RJ45	6	Desigo TRA room devices, e.g. QMX3, AQR..
7	Synco 700 HVAC controllers	8	RXB/RXL/RDG/RDF KNX room controllers/thermostats
9	Gamma and third-party KNX devices	10	KNX TP1

NOTICE! The OCI702 service interface can be operated via USB hubs.

Type summary

Ordering

Please indicate the product type and stock number when ordering. For example:

Type	Stock number	Description
OCI702	S55800-Y101	USB-KNX Interface

Product documentation

Topic	Title	Document ID:
Conformity with European Directives	EU conformity (CE)	8000079437
Supplier's conformity declaration	RCM conformity	8000079489
Environmental compatibility	Product environmental declaration (EPD)	8000079311

Related documents such as environmental declarations, CE declarations, etc., can be downloaded at the following Internet address:

<http://siemens.com/bt/download>

Engineering

The service interface does not require a separate power supply.

- Power is supplied to the USB connector via USB port on the PC.
- The service interface includes a small power supply, providing 25 mA, DC 29 V power to the KNX bus.

Mounting

The service interface is designed for portable use.

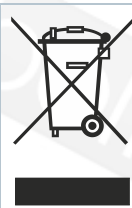
Commissioning

The service interface does not require parameterization.

Maintenance

The service interface is maintenance-free.

Disposal



The device is considered an electronics device for disposal in terms of European Directive 2012/19/EU and may not be disposed of as domestic garbage.

- Dispose of the device through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

Technical data

Power supply	
Operating voltage (from USB)	DC 5 V as per USB specifications
Power consumption	Max. 500 mA

KNX interface	
Connection	2-wire connection, non-interchangeable
KNX cable length	3 m
Baud rate	9600 baud
Bus load number E	Dynamic / adaptive
Bus power supply	25 mA, DC 29 V can be switched off and on manually with slider switch

USB interface	
Standard	USB 2.0 or higher
Device class	HID (human interface device)
Baud rate	Max. 12 Mbps (full speed)
USB cable	
<ul style="list-style-type: none"> ● Plug on PC ● Plug on OCI702 ● Cable length 	<ul style="list-style-type: none"> ● USB Type A ● USB Type B ● 0.2 m

Ambient conditions and protection classification	
Degree of protection of housing to EN 60529	IP20
Permissible environmental conditions for transportation and storage	
<ul style="list-style-type: none"> ● Temperature ● Humidity 	<ul style="list-style-type: none"> ● -25...70 °C ● <95 % r.h. (non-condensing)
Permissible environmental conditions for operation	
<ul style="list-style-type: none"> ● Temperature ● Humidity 	<ul style="list-style-type: none"> ● -5...55 °C ● <85 % r.h. (non-condensing)

Standards	
EU conformity (CE)	8000079437
RCM conformity	8000079489
Environmental compatibility	The product environmental declaration 8000079311 contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).

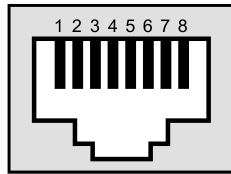
General	
Dimensions	74 x 44 x 19.5 mm
Weight (device complete with packaging)	319 g

Diagrams

Connection terminals

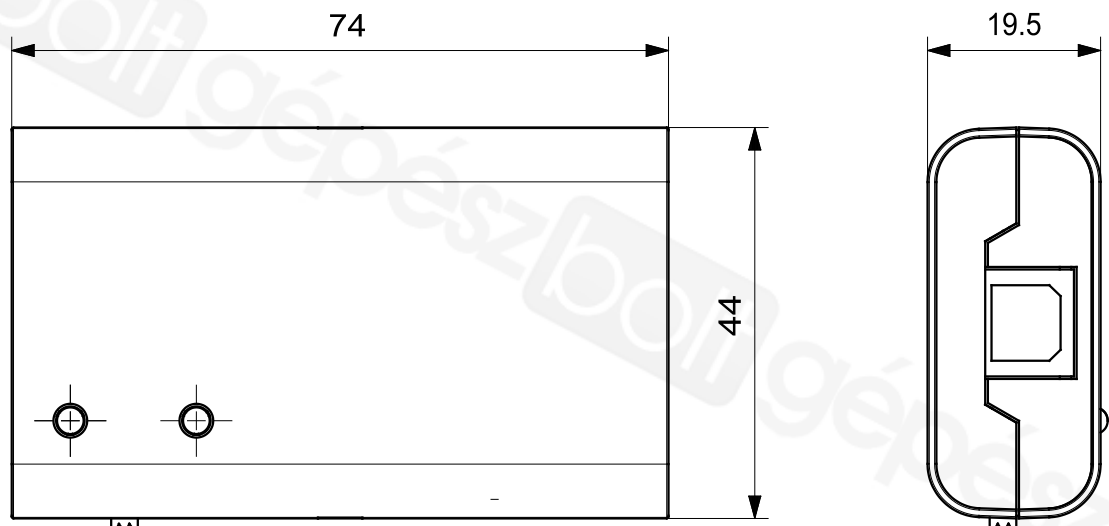
The following KNX pin assignments on the OCI702 service interface apply to assembly of own connection cables:

Pin assignment KNX, RJ45



- 1 CE+, KNX
- 2 CE-, KNX
- 3 Unused
- 4 Unused
- 5 Voltage 16 V
- 6 Unused
- 7 Ident'pin
- 8 Ground

Dimensions (mm)



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Issued by
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www.siemens.com/buildingtechnologies

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