Doc. No. 10000425460_04_EN / 02.2019

Aluminium systems

KNX gateway

en Operating instructions

en

Operating instructions

Contents

1. Notes on this document

1.1. Target groups and qualifications

This document is intended for qualified personnel, such as trained fitters and electricians. Before installing and commissioning, read through this document thoroughly and adhere to the specified sequence of the instructions. Schüco International KG shall not be liable for any damage which arises from a failure to adhere to these instructions.

Qualified personnel are people who know how to assemble, install, commission, test and operate the product and who have the relevant qualifications, e.g. who have been trained and instructed in accordance with safety regulations on the maintenance and use of appropriate safety equipment and who have received training in first aid.

Experts are people whose training and experience means that they have sufficient knowledge of power-operated windows, doors and gates and the corresponding electrical installations. They are familiar with the relevant accident prevention regulations, government health & safety regulations, guidelines and generally recognised technical regulations so that they are qualified to judge the occupational safety of power-operated windows, doors and gates and the corresponding electrical installations.

1.2. Handover of the document

After commissioning, hand over all the documentation pertaining to this product to the end customer. Make them aware of the safety instructions, to which they must pay particular attention.

1.3. Retention of the document

This document is a component of the product. Keep this document in an accessible place even after installation and commissioning, so that the information is always available.

2. Safety

2.1. About the safety instructions

 KEY WORD

Type / source / consequence of the danger

Pictograms and key words advise of the type of danger and the level of danger:

 General personal injury  Personal injury from electrocution  Damage to property

DANGER		Imminent danger resulting in death or severe injuries.
WARNING		Potential imminent danger which may lead to death or severe injuries.
CAUTION		Potentially dangerous situation which may lead to minor injuries.
NOTE		Imminent danger of damage to property which may lead to damage to or destruction of the product or environment.
INFORMATION		Information Information, tips and advice

2.2. Laws, regulations and technical rules

During installation and operation, observe the international, national and local safety regulations, laws and guidelines.

Accepted practice as usually codified in standards, guidelines, specifications and regulations laid down by recognised bodies must be followed.

This applies in particular to:

- DIN EN 60335-2-103: Household and similar electrical appliances - Safety: Particular requirements for drives for gates, doors and windows
- VDE 100-600: Erection of low-voltage installations
- International and national regulations for the prevention of fire and accidents
- European and international standards
- VDE guidelines and regulations, e.g. DIN VDE 0100, DIN VDE 0160, DIN VDE 0632
- EN 60730-2-11: Automatic electrical control units for domestic and similar use – Parts 2-11: Special requirements for energy regulators (IEC 60730-2-11:2006)

2.3. Proper use

The KNX gateway is connected between the KNX building bus and the Schüco device bus. With the KNX gateway, it is possible to control Schüco units from a KNX building bus. Conversely, status information and messages from Schüco units are made available on the KNX bus via the KNX gateway.
The KNX gateway is set up via ETS4 or ETS5. The application is loaded into the ETS for this. The device has no control logic to control the units. It works as bi-directional data transfer.

The device has the following electrical interfaces:

- Connection to the Schüco device bus
- Connection to the KNX building bus (KNX and EIB)

Power is supplied to the device via the device bus connection.

The device is designed for fixed installation in dry rooms. It must be installed on a standardised profile track (DIN mounting rail, 35 mm) in the distributor or control cabinet.

Proper use also includes adhering to the installation and operating instructions. Any alternative use or a use beyond this remit is not in accordance with its purpose.

Incorrect use or unauthorised modification of the product may result in death or serious injury, or damage to the product and other material assets. Only original replacement parts may be used. The manufacturer / supplier shall not be liable for any damage resulting from infringement. The user alone bears the risk.

2.4. General safety instructions

Follow the safety instructions in this document so as not to endanger your own life or that of others and to ensure error-free operation.

DANGER

Imminent danger resulting in death or severe injuries.

- ► Before any work is carried out on the product, all power packs must be disconnected and protected against anyone inadvertently switching them back on.
- ► Following each installation or alteration to the electrical system, carry out a test run to test all functions.
- ► When operating, note that Schüco windows and doors may open and close automatically when left unattended.

For reasons of simplicity, this documentation does not contain every detail of all product types and it cannot cover every possible installation, operation or maintenance scenario.
If you require further information or encounter problems not dealt with in detail in these operating instructions, you can request the requisite information from Building Automation Technical Support.
Moreover, we would like to point out that these installation instructions do not form part of or replace any previous or existing agreement or contract.
All obligations to be fulfilled by Schüco can be found in the appropriate sales contract, which also contains the complete current conditions of the warranty. These operating instructions do not add to or limit the warranty conditions.

3. Contents of delivery, transportation and storage

3.1. Contents of delivery

Open all the packing units. Check that no components are missing and familiarise yourself with the components.

Supplied:

Art. No.	Description	
263 243	KNX gateway	☐
	Mounting rail bus connector	☐
	KNX gateway operating instructions	☐

3.2. Transportation and storage

NOTE

Damage to property

- ► Protect against impact.
- ► Store only in dry interior rooms.
- ► Protect the device against moisture and dirt.

3.3. Technical data

Rear connection for inserting into the mounting rail bus connector	
Type of connection	Plug-in connection, 8-pole, Schüco device bus and supply
Power supply	24 V DC (-20% / +30%) SELV
Input current	25 mA with 24 V DC
Schüco device bus	Standard in accordance with RS-485
Connection terminal X31 (KNX/EIB connector)	
Type / media type	Terminal block for KNX and EIB / TP (TP = Twisted Pair)
Type of terminals	Pin contacts, micro connection terminal
Cable cross section	Solid individual wires 0.5 to 1.5 mm2 (KNX/EIB cable type Ø 0.8 mm)
Mechanical data	
Housing, design	Series installation device, width = 4 HP
Housing, installation	Can be snapped on to standardised profile track in accordance with EN50022, NS 35 x 7.5
Colour, weight, dimensions	Black/light grey, approx. 70 g, (36 x 90 x 62) mm (W x L x H)
Protection rating	IP 20 (installed in the distributor)
Ambient conditions	
Temperature range	Operation: -10 °C to +60 °C; transportation / storage: -40 °C to +85 °C
Relative humidity	5% to 93% (non-condensing)
Electromagnetic compatibility	
EMC requirements in accordance with	DIN EN 50491-5-1/2/3 (VDE 0849-5):2010-11; EN 50491-5-1/2/3:2010
Operating and display units for EIB programming (front)	
Programming button	To find the “physical address” in addressing mode
Programming light (red LED)	To check the bus voltage and feedback when programming

4. Assembly and installation

INFORMATION

► ETS 4 or later is required for programming the application

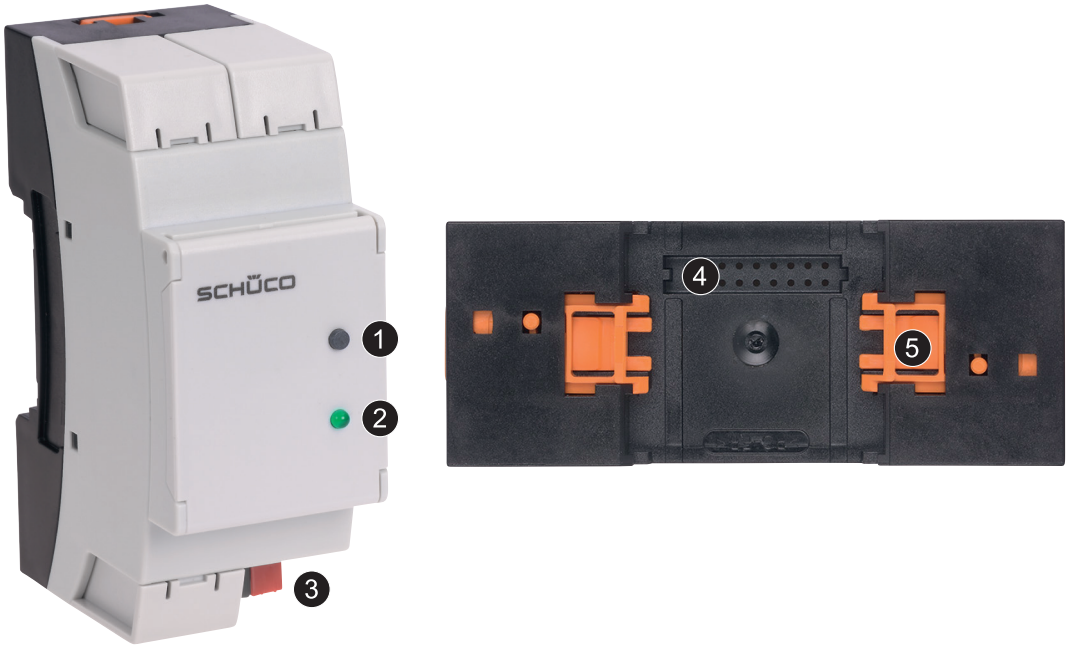
4.1. KNX application

The KNX gateway requires an application for operation. Using the ETS, the application is selected and the specific parameters and addresses are assigned and transferred to the device during commissioning (see section 5).

The KNX product database can be obtained as follows:

- Online at www.schueco.com
- From Smart Building Technical Support: (0049) 0521 783 - 665
- Via e-mail: Support_Automation@schueco.com

4.2. Connection terminal and operating units



1	Programming button	4	Connector socket of mounting rail bus connector
2	Programming light	5	Catch area
3	KNX connection terminal X31		

4.3. Assembly and installation instructions

Ensure that the rear plug-in connection is inserted accurately into the connection socket of the mounting rail bus connector. The device is then held in place by the orange catch springs.
For dismantling, release the catch springs using a flat-head screwdriver (3.5 mm blade width).

INFORMATION

- ► The KNX gateway must always be operated together with the power pack inside the control cabinet. Separating the device by means of a device coupler (263 254) is not permitted.
- ► KNX bus cables are separated and are laid at a distance from other cables supplying power. When laying the cable ducts, the bus cables must also be kept separate from other cables.

DANGER

- ► The device can only be installed in a suitable distributor or control cabinet and can only be installed and operated by a qualified technician. After installing the device, cover the entire terminal area. This is the only way to protect the live components of the device adequately from unauthorised tampering.

4.4. Physical address assignment

To assign the physical address, connect a PC using ETS via an interface to the KNX bus line. After briefly pressing the programming button, the programming light illuminates.

Once the programming of the physical address has been carried out correctly, the red programming light goes off. The device has now saved the assigned physical address.

4.5. Abbreviations used

BSC	Building Skin Control	KNX	Worldwide standard for home and building control
DC	Direct current	LED	Light-emitting diode
ETS	EIB Tool Software	RWA	Smoke and heat exhaust ventilation systems
EIB	European Installation Bus	SELV	Safety Extra Low Voltage
FSG	Vent control unit	VDE	German association for electrical, electronic and information technologies
HSG	Main control unit		

5. ETS product database – KNX gateway

5.1. Product database

The Schüco product database for KNX products is available to download from the download area at www.schueco.com.
The product database is supplemented on an ongoing basis and contains the latest applications at the time of delivery.

5.2. Programming

INFORMATION

► To install / program the application, ETS 4 or later is required.

5.3. Overview of functions

The application program is used to set up the gateway in order to enable the corresponding control commands for the Schüco units via the building management system. The application currently supports Schüco TipTronic SimplySmart window units as well as ASE 60/80 TipTronic sliding units.

Not all functions in the application can be performed by each subscriber. The available functions are provided dynamically depending on the unit type.

5.4. Communication objects

The application has all movement commands that are available for the units in the BSC system. An intelligent filter function is used to provide each subscriber solely with the functions that they can perform.

The application also contains a communication object (universal control command) which can be used to perform individual control functions. A detailed description on setting up communication objects can be found in section 5.7.

When starting up the application for the first time, the following communication objects are already available:

Universal control command	4 bytes
Number of units	1 byte
Group error	1 bit

5.4.1. Setting up communication objects

Before the “movement commands set-up”, each unit type needs to be determined. Please note that the physical addresses on the BSC unit bus are transferred directly to the communication objects. This means, for example, that address 1 on the Schüco unit bus is controlled by means of the communication object 1.

To set up communication objects, proceed as follows:

1. Load the application in ETS and switch to the “Parameters” tab.
» Here you can find the following tabs: “Units 1 to 5”, “Units 6 to 10” etc.
2. Depending on the unit that you‘d like to control, open the corresponding tab and select the desired unit.
» A drop-down menu for the unit will appear, where you can set the relevant type. The type “None” is set here by default.
3. You can now select the relevant unit type.
4. Make a selection.
» The communication objects for the subscribers are made available.

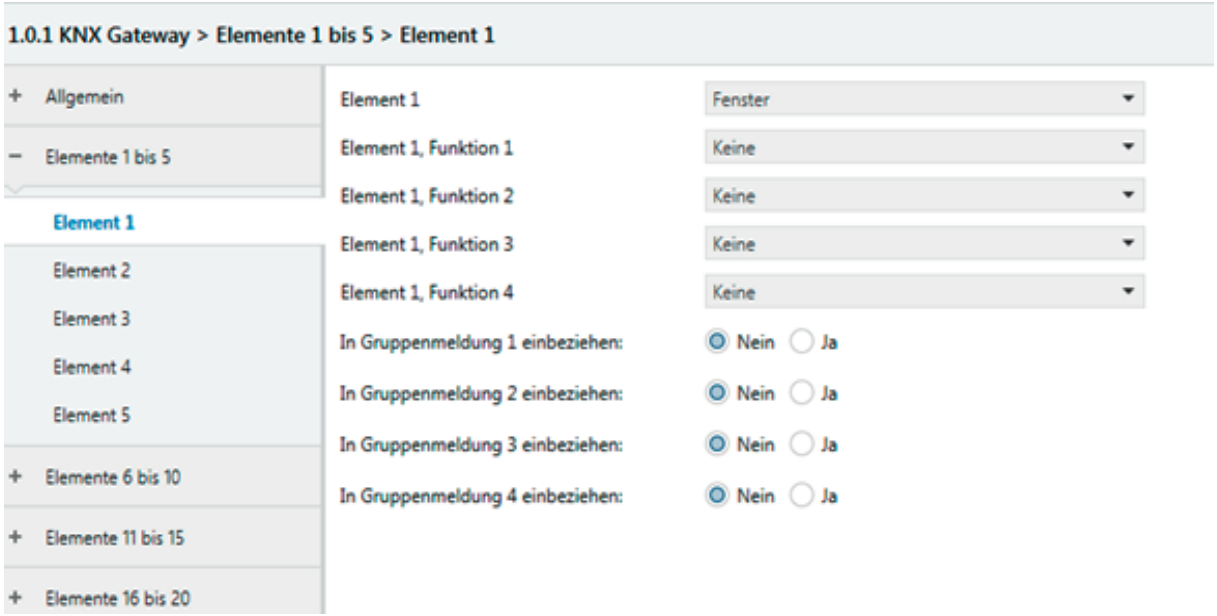


Fig. 1

5.5. Receiver objects

The receiver objects comprise both individual commands and group commands. While for the group command, the entire unit group is activated (max. 30 units), for the individual commands, the units can be operated independently of one another.

Function	Object character
Open/close	Receiver object 1 bit
Stop	Receiver object 1 bit
Positioning	Receiver object 1 byte
Activate timed ventilation	Receiver object 1 byte
Unlock in the turn position	Receiver object 1 bit
Maximum ventilation	Receiver object 1 bit
Open SHEVS	Receiver object 1 bit

Function	Object character
Unit protection	Receiver object 1 bit
Release anti-turn lock	Receiver object 1 bit
Ventilation lock active	Receiver object 1 bit
Lock operation	Receiver object 1 bit
Permanently unlock in the turn position	Receiver object 1 bit
Clean window	Receiver object 1 bit
Activate unit protection for crack ventilation	Receiver object 1 bit
Activate silent mode	Receiver object 1 bit
Window scenario	Receiver object 1 byte
Sliding unit scenario	Receiver object 1 byte
Sliding unit commands	Receiver object 1 byte
Universal control command	Receiver object 4 byte

Group control commands (KNX receiver objects)

Function	Object character
Open/close	Receiver object 1 bit
Stop	Receiver object 1 bit
Positioning	Receiver object 1 byte
Activate timed ventilation	Receiver object 1 byte
Unlock in the turn position	Receiver object 1 bit
Maximum ventilation	Receiver object 1 bit
Open SHEVS	Receiver object 1 bit
Unit protection	Receiver object 1 bit
Release anti-turn lock	Receiver object 1 bit
Ventilation lock active	Receiver object 1 bit
Lock operation	Receiver object 1 bit
Permanently unlock in the turn position	Receiver object 1 bit
Clean window	Receiver object 1 bit
Activate unit protection for crack ventilation	Receiver object 1 bit

Function	Object character
Activate silent mode	Receiver object 1 bit
Window scenario	Receiver object 1 byte
Sliding unit scenario	Receiver object 1 byte

5.6. Transmitter objects

Just as for the receiver objects, there are also transmitter objects, which can be verified individually as an individual notification or group.

1. Create a transmitter object in the “Group notification 1 to 4” tab.
2. Include the relevant unit in the “Units” tab under the option “Include in group message”.

Individual messages (KNX transmitter objects)

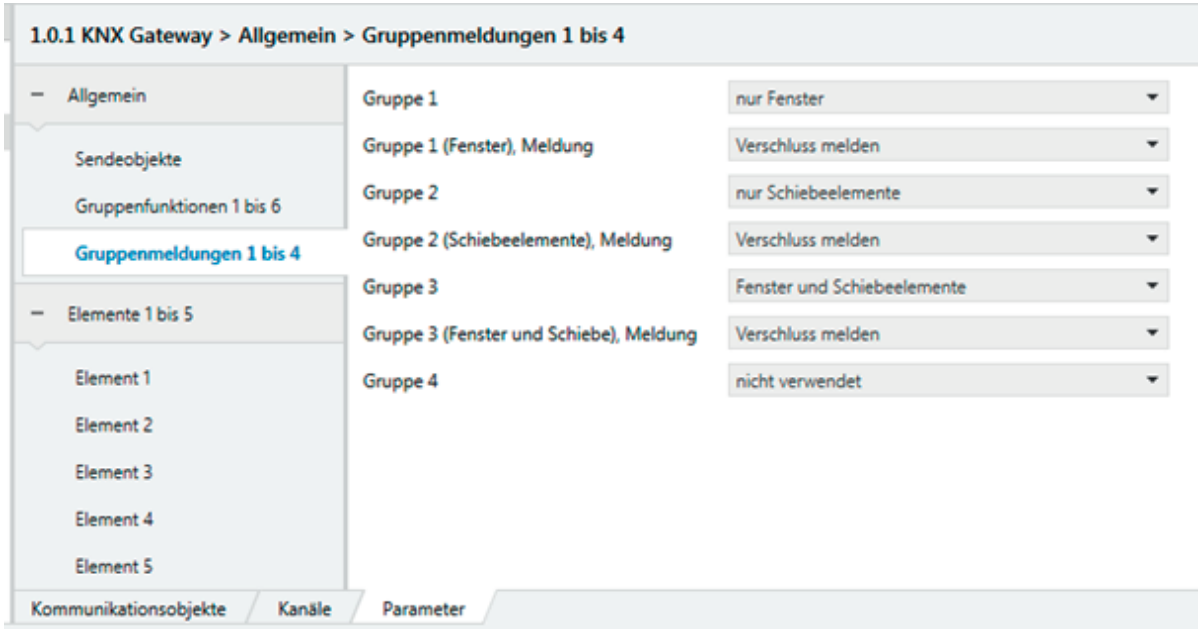


Fig. 2

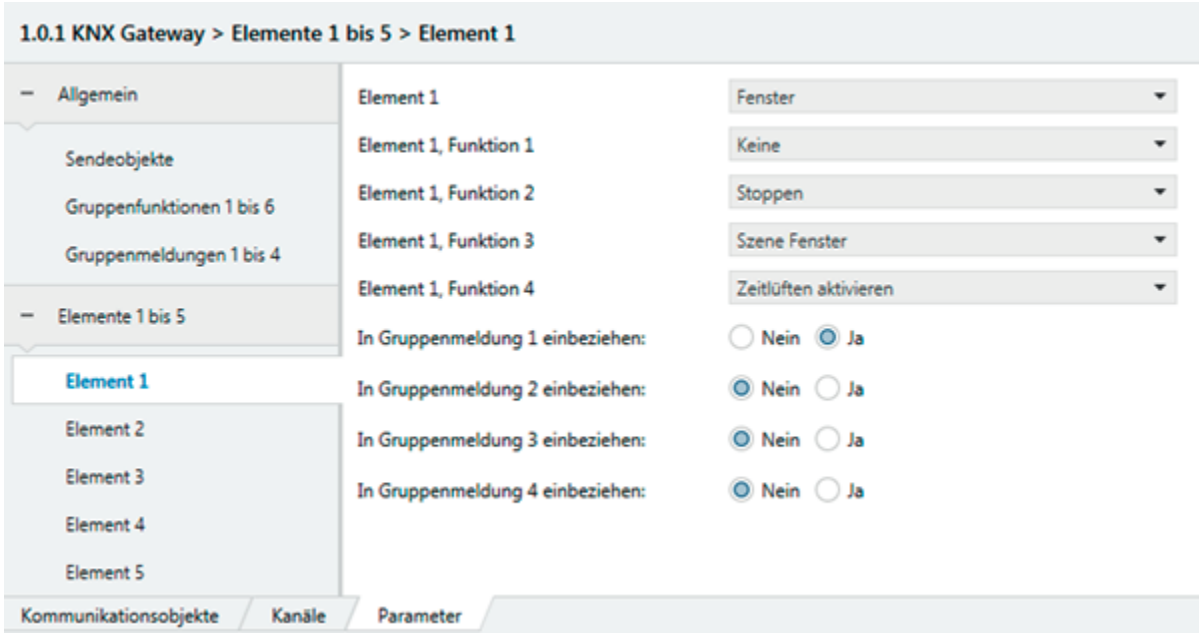


Fig. 3

Group messages (KNX transmitter objects)

Function	Object character
Report closure	1 bit
Completely closed	1 bit
Report ventilation position	1 byte
Report SHEVS opening	1 bit
Report number of units	1 byte
Report opening width	1 byte
Report status	4 bytes

5.7. “Universal command” set up

With the universal communication object, it is possible to control both all units as well as their sub-units (e.g. vent for sliding systems). For the control you need a KNX device that supports the 4-byte encoder function.

Enter the value which triggers the relevant control command in the corresponding device. The control command consists of the function table that is described in this section. If an invalid value is controlled with the 4-byte object, it is simply ignored.

The value essentially consists of 4 blocks, and its sequence must be adhered to.

Block 1: “Unit number”	Block 2: “Function No.”
Block 3: “Parameter H”	Block 4: “Parameter L”

Use the tables to calculate the desired values and enter these in sequence for the value transmitter. The values are hexadecimal values. Enter the values without the prefix “0x”. The conversion table can be found on page 30.

Block 1: “Unit number”

Value	Meaning
0x00	No unit
0x01	Control unit No. 1
0x02 - 0x1E	Control unit No. 2 etc.
0x81	Control all windows
0x82	Control all sliding units
0x83	Control all windows and sliding units
0xFF	Control entire group

Block 2: “Function No.” *Note reference table on page 19

Value	Meaning
0x00 - 0x07	Select as per parameters H and L
0x08 - 0x0F	Select as per parameters H and L
0x10 - 0x17	Select as per parameters H and L
0x20 - 0x24	Select as per parameters H and L

Block 3: “Parameter H”

Value	Valid for function No.	Note	Comment
No value	0-7 / 16-23 / 32	All bit commands	No value for bit commands
0x10 - 0xFF	33 / 36	Unit setting	
0x40 - 0xFF	34 / 35	Sub-unit	

Block 4: “Parameter L”

Value	Valid for function No.	Note	Comment
No value	0-3 / 6 / 7	Bit commands with trigger	No value for bit commands
0x00 / 0x01 - 0xFF	16-23 / 32	Bit commands with activate / deactivate (0 = deactivated, 1-255 = active)	
0x00 - 0xFF	4 / 5	Positioning movement / timed ventilation	
No value	33	Open unit setting	
No value	35	Stop sub-unit	
0x00 - 0xFF	34	Positioning movement for sub-unit	
0x00 - 0xFF	36	Timed ventilation for unit setting	

Examples of universal control command for KNX entry

If the send value for a universal control command can be given in hexadecimal notation, the entry is very clear. The ETS offers this option.

If only one decimal entry is possible (e.g. for simple tactile sensors), a conversion must be made into the decimal notation.

You can find corresponding examples in section 8 ”Additional information” on page 30.

Reference table block 2, “Function No.”

Function	Function No.
Not working	0
Open	1
Close	2
Stop	3
Positioning	4
Activate timed ventilation	5
Unlock in the turn position	6
Maximum ventilation	7
Open SHEVS	16
Unit protection	17
Release anti-turn lock	18
Ventilation lock active	19
Lock operation	20
Permanently unlock in the turn position	21
Clean window	22
Activate unit protection for crack ventilation	23
Activate silent mode	32
Run unit setting	33
Positioning movement for sub-unit	34
Stop sub-unit	35
Timed ventilation with unit setting	36

To control the corresponding unit settings and sub-units of a sliding system, you also need a number for the universal control commands. You can find this in the coding table on page 22.

Function No. 33 “Run unit setting”	
Unit setting 0-15	Value 128-143
Function No. 36 “Timed ventilation with unit setting”	
Unit setting 0-15	Value 192-207
Function No. 34 “Positioning movement for sub-unit ”	
Sub-unit 1	Value 65
Sub-unit 2	Value 66
Sub-unit 3	Value 68
Sub-unit 4	Value 72
Sub-unit 5	Value 80
Sub-unit 6	Value 96
Function No. 35 “Stop sub-unit”Deactivate permanently unlock in the turn position	
Sub-unit 1	Value 1
Sub-unit 2	Value 2
Sub-unit 3	Value 4
Sub-unit 4	Value 8
Sub-unit 5	Value 16
Sub-unit 6	Value 32

5.8. “Window/sliding unit scene” set-up

Setting up scenarios for windows, sliding units and the combination of both types is carried out in a similar way to setting up universal control commands.
You need a KNX control unit which supports a 1-byte value transmitter. Enter the value for the desired function in accordance with the following table.

Function	Value
Maximum ventilation	0x01
Unlock in the turn position	0x03
Release anti-turn lock	0x05
Do not release anti-turn lock	0x06
Activate permanently unlock in the turn position	0x07
Deactivate permanently unlock in the turn position	0x08
Activate window cleaning function	0x09
Deactivate window cleaning function	0x0A
Activate unit protection for crack ventilation	0x0B
Deactivate unit protection for crack ventilation	0x0C
Activate SHEVS air vent opening	0x0D
Deactivate SHEVS air vent opening	0x0E
Open unit	0x15
Close unit	0x16
Unit stop	0x17
Activate unit protection	0x19
Deactivate unit protection	0x1A
Activate ventilation lock	0x1B
Deactivate ventilation lock	0x1C
Activate operation lock	0x1D
Deactivate operation lock	0x1E
Activate silent mode	0x1F
Deactivate silent mode	0x20
Run unit setting 0-15	0x28 - 0x37
Stop sub-unit 1-6	0x3B - 0x40

5.9. Sliding units command

The sliding units command can be used to control individual vents of a sliding system. In order to control individual vents, the communication object can be reached using the 2-byte value transmitter.

This results in the following areas (MSByte 1) for the sliding unit commands:

Value	Description
0x00 -0x3F	Stop sub-unit
0x40 - 0x7F	Positioning movement for sub-unit
0x80 - 0x8F	Opening of unit settings
0x90 - 0xBF	Not defined (ignored by the gateway)
0xC0 - 0xCF	Timed ventilation with unit setting

Coding table function number 0x21: Opening of unit settings

Unit setting	Hex value
0	0x80
1	0x81
2	0x82
3	0x83
4	0x84
5	0x85
6	0x86
7	0x87
8	0x88
9	0x89
10	0x8A
11	0x8B
12	0x8C
13	0x8D
14	0x8E
15	0x8F

Coding table function number 0x24: Timed ventilation with unit setting

Unit setting	Hex value	Time
0	0xC0	0...FF
1	0xC1	0...FF
2	0xC2	0...FF
3	0xC3	0...FF
4	0xC4	0...FF
5	0xC5	0...FF
6	0xC6	0...FF
7	0xC7	0...FF
8	0xC8	0...FF
9	0xC9	0...FF
10	0xCA	0...FF
11	0xCB	0...FF
12	0xCC	0...FF
13	0xCD	0...FF
14	0xCE	0...FF
15	0xCF	0...FF

Coding table function number 0x22: Positioning movement for sub-unit

Sub-unit No.	Hex value	Opening width
No	0x40	0…100 (%)
1	0x41	0…100 (%)
2	0x42	0…100 (%)
2,1	0x43	0…100 (%)
3	0x44	0…100 (%)
3,1	0x45	0…100 (%)
3,2	0x46	0…100 (%)
3,2,1	0x47	0…100 (%)
4	0x48	0…100 (%)
4,1	0x49	0…100 (%)
4,2	0x4A	0…100 (%)
4,2,1	0x4B	0…100 (%)
4,3	0x4C	0…100 (%)
4,3,1	0x4D	0…100 (%)
4,3,2	0x4E	0…100 (%)
4,3,2,1	0x4F	0…100 (%)
5	0x50	0…100 (%)
5,1	0x51	0…100 (%)
5,2	0x52	0…100 (%)
5,2,1	0x53	0…100 (%)
5,3	0x54	0…100 (%)
5,3,1	0x55	0…100 (%)
5,3,2	0x56	0…100 (%)
5,3,2,1	0x57	0…100 (%)
5,4	0x58	0…100 (%)
5,4,1	0x59	0…100 (%)
5,4,2	0x5A	0…100 (%)
5,4,2,1	0x5B	0…100 (%)
5,4,3	0x5C	0…100 (%)
5,4,3,1	0x5D	0…100 (%)
5,4,3,2	0x5E	0…100 (%)
5,4,3,2,1	0x5F	0…100 (%)

Sub-unit No.	Hex value	Opening width
6	0x60	0…100 (%)
6,1	0x61	0…100 (%)
6,2	0x62	0…100 (%)
6,2,1	0x63	0…100 (%)
6,3,1	0x65	0…100 (%)
6,3,2	0x66	0…100 (%)
6,3,2,1	0x67	0…100 (%)
6,4	0x68	0…100 (%)
6,4,1	0x69	0…100 (%)
6,4,2	0x6A	0…100 (%)
6,4,2,1	0x6B	0…100 (%)
6,4,3	0x6C	0…100 (%)
6,4,3,1	0x6D	0…100 (%)
6,4,3,2	0x6E	0…100 (%)
6,4,3,2,1	0x6F	0…100 (%)
6,5	0x70	0…100 (%)
6,5,1	0x71	0…100 (%)
6,5,2	0x72	0…100 (%)
6,5,2,1	0x73	0…100 (%)
6,5,3	0x74	0…100 (%)
6,5,3,1	0x75	0…100 (%)
6,5,3,2	0x76	0…100 (%)
6,5,3,2,1	0x77	0…100 (%)
6,5,4	0x78	0…100 (%)
6,5,4,1	0x79	0…100 (%)
6,5,4,2	0x7A	0…100 (%)
6,5,4,2,1	0x7B	0…100 (%)
6,5,4,3	0x7C	0…100 (%)
6,5,4,3,1	0x7D	0…100 (%)
6,5,4,3,2	0x7E	0…100 (%)
6,5,4,3,2,1	0x7F	0…100 (%)

Coding table function number 0x23: Stop sub-unit

Sub-unit No.	Hex value
No	0x00
1	0x01
2	0x02
2,1	0x03
3	0x04
3,1	0x05
3,2	0x06
3,2,1	0x07
4	0x08
4,1	0x09
4,2	0x0A
4,2,1	0x0B
4,3	0x0C
4,3,1	0x0D
4,3,2	0x0E
4,3,2,1	0x0F
5,1	0x11
5,2	0x12
5,2,1	0x13
5,3	0x14
5,3,1	0x15
5,3,2	0x16
5,3,2,1	0x17
5,4	0x18
5,4,1	0x19
5,4,2	0x1A
5,4,2,1	0x1B
5,4,3	0x1C
5,4,3,1	0x1D
5,4,3,2	0x1E
5,4,3,2,1	0x1F

Sub-unit No.	Hex value
6	0x20
6,1	0x21
6,2	0x22
6,2,1	0x23
6,3	0x24
6,3,1	0x25
6,3,2	0x26
6,3,2,1	0x27
6,4	0x28
6,4,1	0x29
6,4,2	0x2A
6,4,2,1	0x2B
6,4,3	0x2C
6,4,3,1	0x2D
6,4,3,2	0x2E
6,4,3,2,1	0x2F
6,5	0x30
6,5,1	0x31
6,5,2	0x32
6,5,2,1	0x33
6,5,3	0x34
6,5,3,1	0x35
6,5,3,2	0x36
6,5,3,2,1	0x37
6,5,4	0x38
6,5,4,1	0x39
6,5,4,2	0x3A
6,5,4,2,1	0x3B
6,5,4,3	0x3C
6,5,4,3,1	0x3D
6,5,4,3,2	0x3E
6,5,4,3,2,1	0x3F

5.10. Operating modes

Different operating modes are used in the BASP for the individual subscribers. The subscribers sometimes behave differently or support different commands. All possible operating modes are listed below.

Value	Implemented by	Description
0x00	TipTronic SimplySmart ASE 60/80	Commissioning
0x01	Automation Manager TipTronic SimplySmart IP-Gateway ASE 60/80	Normal operation (exit other operating modes)
0x02	Automation Manager IP-Gateway ASE 60/80	Service mode
0x03	TipTronic SimplySmart	NSHEVS mode
0x04	Automation Manager TipTronic SimplySmart ASE 60/80	Boot loader mode
0xFD	ASE 6080 (VCU)	Not included in system
0xFE	-	Offline
0xFF	-	Invalid status

5.11. Status notifications

This notification provides the operating type, unit type and unit status of each unit on the KNX.

There is the option to provide a notification for only the status of the MCU (main control unit) or even the vent statuses as well.

Definition of terms:

MCU status	Notification only of status of MCU, status overview
MCU status	Notification of statuses of all vents plus status of MCU, complete status

Subscriber type

Value	Description
0x00	No type (invalid)
0x10	TipTronic toplight/bottom-hung
0x11	TipTronic side-hung LH
0x12	TipTronic side-hung RH
0x13	TipTronic turn/tilt LH
0x14	TipTronic turn/tilt RH
0x15	TipTronic projected top-hung
0x16	TipTronic OpenOut projected top-hung
0x17	TipTronic OpenOut (master)
0x18	TipTronic OpenOut (single / slave)
0x19	TipTronic VV (Ventilation Vent) LH
0x1A	TipTronic VV (Ventilation Vent) RH
0x20	TipTronic SHEVS bottom-hung
0x21	TipTronic SHEVS side-hung LH
0x22	TipTronic SHEVS side-hung RH
0x23	TipTronic SHEVS projected top-hung
0x24	TipTronic SHEVS OpenOut projected top-hung
0x30	ASE 60/80 main control unit
0x31	ASE 60/80 vent control unit
0x33	ASE 60/80 vent control unit, heavy

Unit status

Value	Meaning	Description
0x10	Is closed and locked	Z0
0x11	Is closed and is being unlocked	Z1
0x12	Is closed and unlocked	Z2
0x13	Is opening in direction of ventilation	Z3
0x14	Is partially opened	Z4
0x15	Is fully opened in direction of ventilation	Z5
0x16	Closing from ventilation position	Z10
0x17	Is closed and is being locked	Z11
0x18	Is closed and is being unlocked (turn position)	Z12
0x19	Is closed and unlocked (turn position)	Z13
0x1A	Is open in turn position	Z14
0x1B	Is closed and is being locked	Z15
0x1C	Is opening to maximum opening width	Z6
0x1D	Is open to maximum opening width	Z8
0x1E	Is closing from maximum opening width	Z9
0x1F	Is more than 100% open	Z7
0x20	Finger lock is being unlocked (turn position)	Z16
0x21	Finger lock is being locked (turn position)	Z17
0x30	Has not been put into operation	Z30
0x31	Is in boot loader	Z31
0x42	Reference cycle required	Z21
0xFF	Invalid status	

Operating mode

Value	Subscriber type	Description
0x00	TipTronic SimplySmart ASE 60/80 TipTronic	Commissioning
0x01	TipTronic SimplySmart ASE 60/80 TipTronic	Normal mode
0x02	ASE 60/80 TipTronic	Service mode
0x03	TipTronic SimplySmart	SHEVS mode
0x04	TipTronic SimplySmart ASE 60/80 TipTronic	Boot loader mode
0xFD	ASE 60/80 TipTronic	Not included in system
0xFE	-	Offline
0xFF	-	Invalid status

6. Decommissioning and disposal

The materials used can be recycled. Observe the environmental requirements with regard to recycling, re-use and disposal of operating materials and components in accordance with the local, country-specific and international current technical regulations and official regulations. Make a contribution towards protecting our environment and dispose of the device at a collection point.

7. Service and support

At Schüco, a high level of customer satisfaction is our priority. If you require further information or encounter problems not dealt with in detail in this document, you can request the requisite information from Building Automation Technical Support.

You can reach your contact partners on the service phone numbers below:

Hotline – Metal systems

Please contact your local branch.

Technical Support – Smart Building

Monday – Thursday:	8.00 am – 4.30 pm
Friday:	8.00 am – 3.00 pm
Tel.:	+49 (0) 521 - 783 665
E-mail:	Support_Automation@schueco.com

8. Additional information

8.1. Conversion table

Decimal value	Hexadecimal value
0	0x00
1	0x01
2	0x02
3	0x03
4	0x04
5	0x05
6	0x06
7	0x07
8	0x08
9	0x09
10	0x0A
11	0x0B
12	0x0C
13	0x0D
14	0x0E
15	0x0F
16	0x10
17	0x11
18	0x12
19	0x13
20	0x14
21	0x15
22	0x16
23	0x17
24	0x18
25	0x19
26	0x1A

Decimal value	Hexadecimal value
27	0x1B
28	0x1C
29	0x1D
30	0x1E
31	0x1F
32	0x20
33	0x21
34	0x22
35	0x23
36	0x24
37	0x25
38	0x26
39	0x27
40	0x28
41	0x29
42	0x2A
43	0x2B
44	0x2C
45	0x2D
46	0x2E
47	0x2F
48	0x30
49	0x31
50	0x32
51	0x33
52	0x34
53	0x35

Decimal value	Hexadecimal value
54	0x36
55	0x37
56	0x38
57	0x39
58	0x3A
59	0x3B
60	0x3C
61	0x3D
62	0x3E
63	0x3F
64	0x40
65	0x41
66	0x42
67	0x43
68	0x44
69	0x45
70	0x46
71	0x47
72	0x48
73	0x49
74	0x4A
75	0x4B
76	0x4C
77	0x4D
78	0x4E
79	0x4F
80	0x50
81	0x51

Decimal value	Hexadecimal value
82	0x52
83	0x53
84	0x54
85	0x55
86	0x56
87	0x57
88	0x58
89	0x59
90	0x5A
91	0x5B
92	0x5C
93	0x5D
85	0x55
86	0x56
87	0x57
88	0x58
89	0x59
90	0x5A
91	0x5B
92	0x5C
93	0x5D
94	0x5E
95	0x5F
96	0x60
97	0x61
98	0x62
99	0x63
100	0x64

Decimal value	Hexadecimal value
101	0x65
102	0x66
103	0x67
104	0x68
105	0x69
106	0x6A
107	0x6B
108	0x6C
109	0x6D
110	0x6E
110	0x6F
112	0x70
113	0x71
114	0x72
115	0x73
116	0x74
117	0x75
118	0x76
119	0x77
120	0x78
121	0x79
122	0x7A
123	0x7B
124	0x7C
125	0x7D
126	0x7E
127	0x7F
128	0x80

Decimal value	Hexadecimal value
129	0x81
130	0x82
131	0x83
132	0x84
133	0x85
134	0x86
135	0x87
136	0x88
137	0x89
138	0x8A
139	0x8B
140	0x8C
141	0x8D
142	0x8E
143	0x8F
144	0x90
145	0x91
146	0x92
147	0x93
148	0x94
149	0x95
150	0x96
151	0x97
152	0x98
153	0x99
154	0x9A
155	0x9B
156	0x9C

Decimal value	Hexadecimal value
157	0x9D
158	0x9E
159	0x9F
160	0xA0
161	0xA1
162	0xA2
163	0xA3
164	0xA4
165	0xA5
166	0xA6
167	0xA7
168	0xA8
169	0xA9
170	0xAA
171	0xAB
172	0xAC
173	0xAD
174	0xAE
175	0xAF
176	0xB0
177	0xB1
178	0xB2
179	0xB3
180	0xB4
181	0xB5
182	0xB6
183	0xB7
184	0xB8

Decimal value	Hexadecimal value
185	0xB9
186	0xBA
187	0xBB
188	0xBC
189	0xBD
190	0xBE
191	0xBF
192	0xC0
193	0xC1
194	0xC2
195	0xC3
196	0xC4
197	0xC5
198	0xC6
199	0xC7
200	0xC8
201	0xC9
202	0xCA
203	0xCB
204	0xCC
205	0xCD
206	0xCE
207	0xCF
208	0xD0
209	0xD1
210	0xD2
211	0xD3
212	0xD4

Decimal value	Hexadecimal value
213	0xD5
214	0xD6
215	0xD7
216	0xD8
217	0xD9
218	0xDA
219	0xDB
220	0xDC
221	0xDD
222	0xDE
223	0xDF
224	0xE0
225	0xE1
226	0xE2
227	0xE3
228	0xE4
229	0xE5
230	0xE6
231	0xE7
232	0xE8
233	0xE9
234	0xEA

Decimal value	Hexadecimal value
235	0xEB
236	0xEC
237	0xED
238	0xEE
239	0xEF
240	0xF0
241	0xF1
242	0xF2
243	0xF3
244	0xF4
245	0xF5
246	0xF6
247	0xF7
248	0xF8
249	0xF9
250	0xFA
251	0xFB
252	0xFC
253	0xFD
254	0xFE
255	0xFF

8.2. Examples of universal control command for KNX entry

Below are a few examples of how the send values are formed. In each top row, the decimal notation for the send value is selected, while in each bottom row the corresponding hexadecimal notation is selected.

Example 1: “Opening of unit 12”

Function	Byte 3	Byte 2	Byte 1	Byte 0
	Unit No.	Function No.	Parameters H	Parameters L
Open unit 12	**12**	0x01=**1**	Any numerical value, e.g. **0**	Any numerical value, e.g. **0**
Open unit 12	0x0C	0x01	0x00	0x00

= Send value decimal	**12** * 256*256*256 + **1** * 256*256 + **0** * 256 + **0** * 1=**201.392.128**
= Send value hexadecimal	0x0C010000

Example 2: “Activate operation lock of unit 17”

Function	Byte 3	Byte 2	Byte 1	Byte 0
	Unit No.	Function No.	Parameters H	Parameters L
Activate unit 17 operation lock	**17**	0x14=**20**	Any numerical value, e.g. **0**	Activate, value >0, e.g. **1**
Activate unit 17 operation lock	0x11	0x14	0x00	0x01

= Send value decimal	**17** * 256*256*256 + **20** * 256*256 + **0** * 256 + **1** * 1=**286.523.393**
= Send value hexadecimal	0x11140001

Example 3: “Positioning unit 50% of unit 5”

Function	Byte 3	Byte 2	Byte 1	Byte 0
	Unit No.	Function No.	Parameters H	Parameters L
Activate unit 5 operation lock	**5**	0x04=**4**	Any numerical value, e.g. 0	Position in %, 50
Activate unit 5 operation lock	0x05	0x04	0x00	0x32

= Send value decimal	**5** * 256*256*256 + **4** * 256*256 + **0** * 256 + **50** * 1=**84.148.274**
= Send value hexadecimal	0x05040032

Example 4: “Run unit setting 9 of unit 24”

Function	Byte 3	Byte 2	Byte1	Byte 0
	Unit No.	Function No.	Parameters H	Parameters L
Unit 24, run, position 9	**24**	0x21=**33**	Unit setting: **9**	Any numerical value, e.g. 0
Unit 24, run, position 9	0x18	0x21	0x09	0x00

= Send value decimal	**24** * 256*256*256 + **33** * 256*256 + **9** * 256 + **0** * 1=**404.818.176**
= Send value hexadecimal	0x24330900

Example 5: “Timed ventilation with unit setting for unit 30”

Function	Byte 3	Byte 2	Byte 1	Byte 0
	Unit No.	Function No.	Parameters H	Parameters
Unit 30, timed ventilation 120 mins in position 3	**30**	0x24=**36**	Unit setting: 3	Opening time in mins, 120
Unit 30, timed ventilation 120 mins in position 3	0x1E	0x24	0x03	0x00

= Send value decimal	**30** * 256*256*256 + **36** * 256*256 + **3** * 256 + **120** * 1=505.676.664
= Send value hexadecimal	0x1E240378

en Original instructions

The export, fabrication and assembling of Schüco products within the scope of building projects in the USA are subject to specific regulations (product testing/certification) which must be coordinated with Schüco USA LLLP prior to importing the products into the USA. If you have any questions on this matter, please contact Schüco USA LLLP, e-mail: alutechsupport@schuco-usa.com. Schüco International KG assumes no liability for damages which result from the use / fabrication / assembling of products which have not been approved by Schüco for the US market or which are fabricated and assembled there by contractors who are not sufficiently qualified to work with Schüco products.

Please note the special instructions in the general section of the manual for the fabrication and assembly of Schüco products for building projects in the USA.

Schüco International KG
Karolinenstraße 1-15
33609 Bielefeld
Tel. +49 521 783-0
Fax +49 521 783-451
www.schueco.de

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