# KNX/SMI Actuator-3TE 16K BT

en **Installation instructions**

## KNX/SMI Actuator

Important information for:

• fitters / • certified electricians / • operators

Please forward accordingly!

These instructions must be kept by the operator.

4002 630 009 0 01/03/2022

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## General

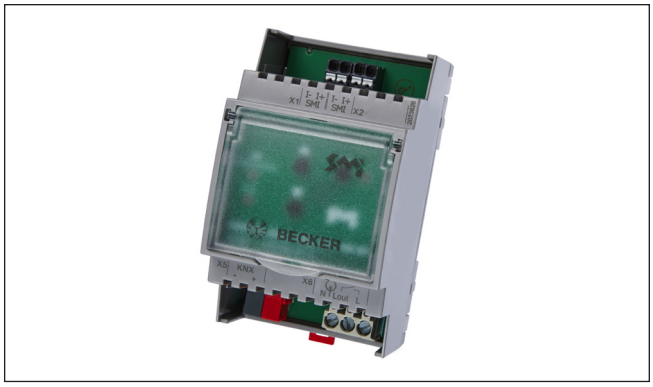


Fig. 1 KNX/SMI Actuator REG-3TE 16K BT

Up to 16 SMI sun shading drives in up to 16 groups can be operated centrally using the KNX/SMI Actuator REG-3TE 16K BT.
The drives are operated via the KNX bus system. The actuator is supplied via the KNX bus. The SMI interface, however, is operated via a 230 V AC auxiliary voltage source.
The drives are operated directly with 230 V AC. A maximum of 16 motors without fuse protection can be connected to the SMI interface.

## Intended use

The KNX/SMI Actuator REG-3TE 16K BT is an electronic device for controlling SMI sun shading systems. The approval of the manufacturer must be obtained for any use of the device other than its intended purpose specified in these instructions.

The actuator is intended for installation in enclosed electrical operating facilities.

## Safety instructions

**WARNING**
**The electrical installation (assembly)/dismantling must be performed by a certified electrician in accordance with VDE 0100 or the legal requirements and standards of the country in which the device is being installed. The electrician must observe the installation instructions included with the electrical devices supplied.**

**WARNING**
**If it is assumed that hazard-free operation will not be possible, the device may not be started or must be deactivated. This assumption is justified if:**

- **▶ the housing or the connecting lines show signs of damage,**
- **▶ the device is no longer working.**

**WARNING**
**It is important to comply with the following points in the interest of personal safety.**

- Children may not play with the operating elements of the control unit or the remote control. Store remote controls out of reach of children.
- Make sure that no persons or objects are in the range of movement of the driven parts (blinds, external venetian blinds, etc.).
- Disconnect the device from the operating voltage if cleaning or other maintenance work must be performed!

## Actuator functions

The software functions of the KNX/SMI actuator are described in detail in the software manual (article number 4002 630 011 0). You can download the software manual and the product database for the actuator from www.becker-antriebe.com/downloads or from the ETS online catalogue.

## Installation

The device is intended for installation in a distribution cabinet. The device is installed by clipping it onto a DIN rail (TH 35/DIN 60715).

## Electrical connection

An on-site overload current protection device (fuse) and a disconnecting and isolating switch to switch off the entire unit must be provided.

The unit is electrically connected according to the wiring diagram on the reverse (Fig. 5). The connection to the KNX bus system and the drives is made using spring terminals, the connecting lines are designed as screw terminals.

## Commissioning

After the installation has been completed and the operating voltages have been applied, the correct connection can be tested using the manual override operation keypad under the cover panel (broadcast push button up/down all drives) (Fig. 3). You will find a detailed description on the further commissioning in the software manual (article number 4002 630 011 0).

**Local operation via App / Bluetooth (LE)**
You will find the app for the commissioning or emergency operation of the actuator in the Apple AppStore and in the Google Play Store.
Download this to your smartphone.
Once the app is started, the surrounding area is scanned for actuators. Available actuators are shown and can be operated. Operation via app has the same priority as manual operation via group objects. The operating behaviour is as follows:

Brief push of the button = Stop move command

Long push of the button = Up/Down move command

A detailed description of the operation is integrated in the app and can also be found in the associated software manual (article number 4002 630 011 0). If a motor has not been allocated to an output, it can be operated only via SMI broadcast.

The communication between the smartphone and the KNX devices is established via Bluetooth. This function can be switched off via the ETS (the function is always pre-set in the factory to "On"). During parameterisation, change the default password in accordance with your specifications and memorise your password in order to prevent operation by unauthorised persons.

**WARNING**
**Never randomly press the push button on the app without having a line of sight to the sun shading system.**

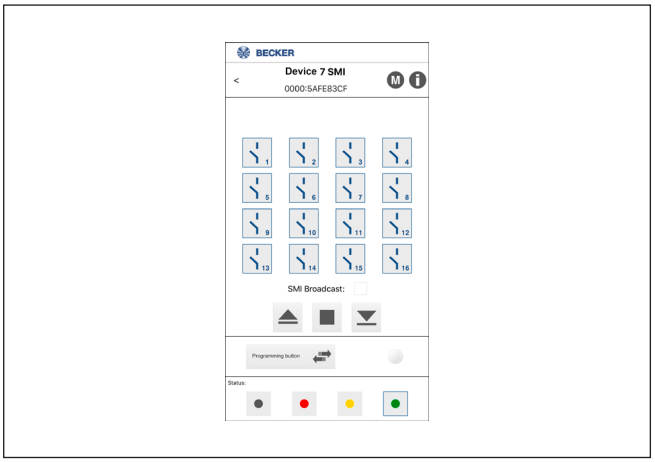


Fig. 2 Smartphone app

The manual override operation, a push button on the device, has the highest priority and overrides all KNX commands (even the safety objects).

The operating behaviour corresponds to the "KNX behaviour":

Brief push of the button = Stop

Long push of the button = Move

**WARNING**
**Never randomly press the buttons on the keypad without having a line of sight to the sun shading system.**

### Programming

You can perform programming either in the app or directly on the device.

There is a Prog button for programming and a display LED both in the app and on the keypad (see Fig. 3).

The procedure here is basically the same:

- Press the programming button in the app or on the device (Fig. 3) to put the device into programming mode. The red LED lights up when programming mode is active. Programming is performed using the ETS on the PC. This software ends the programming mode automatically. The red LED goes out.
- If the programming mode is to be ended earlier, press the programming button again. The red LED goes out.

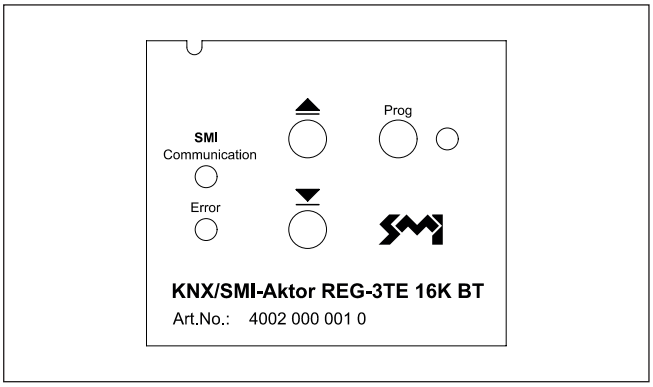


Fig. 3 Cover plate

## LED flash patterns

| | Communication LED green | Error LED red | Statement |
|---|---|---|---|
| Flashes irregularly | X | | SMI communication, no fault |
| Flashes irregularly | | X | SMI communication, faults occur (the LED is deactivated during the motor search & initialisation) |
| Lights up constantly | X | X | Unparameterised - SMI bus not yet commissioned or no motors in the internal motor list |

## Maintenance

There are no parts inside the device that require maintenance.

## Cleaning

Clean the housing with a soft, dry cloth. Do not use detergents, cleaning agents, solvents, abrasive substances or steam cleaners!

## Liability

Failure to comply with the product information in these instructions and any use of the device other than its intended use may result in the manufacturer refusing to honour warranty claims for product damage. In this case, liability for secondary harm to persons or damage to property will also be excluded. Observe the information in the operating instructions for your sun shading system. The automatic or manual operation of the sun shading system while iced over and the use of the sun shading system during severe weather may cause damage and must be prevented by the operator through suitable precautions.

### Obligations for the disposal of electrical devices

A marking with this symbol indicates the following obligations under the scope of legal regulations:

- The owner of this electrical device must dispose of it separately from unsorted municipal waste for further recycling.
- Used batteries and accumulators that are not enclosed in the old device, as well as lamps/bulbs that can be removed from the old device without breaking, must be disposed of separately.
- Distributors of electrical devices and disposal companies are obliged to take back the equipment free of charge.
- The owner must take it upon themselves to delete any personal data contained in the electrical device prior to disposal.

## Technical data

| KNX/SMI Actuator REG-3TE 16K BT | min. | typ. | max. | Unit |
|---|---|---|---|---|
| **Auxiliary power supply 230 V AC SMI interface** | | | | |
| Operating voltage | 198 | 230 | 253 | V AC |
| Mains frequency | | 50 | | Hz |
| SMI power consumption deactivated | | – | | W with 230 V AC |
| SMI power consumption activated | | 1.3 | | W with 230 V AC |
| Power-saving relay switching capacity for SMI drives | | | 3600 | VA |
| **SMI outputs** | | | | |
| Number of SMI interfaces | | | 1 | Pc |
| Number of motors | | | 16 | Pc |
| Number of groups | | | 16 | Pc |
| **Bluetooth transceiver** | | | | |
| Transmission frequency | | 2.4 | | GHz |
| Transmission power | | | 0 | dBm |
| Input sensitivity | | | -90 | dBm |
| Operating range (environment without interference) | | 5 | | m |
| **KNX Interface** | | | | TP 1 |
| Current consumption KNX | | 5 | | mA |
| Current consumption KNX at device start | | | 18 | mA |
| Voltage | | 30 | | V DC |
| Conformity | | | | CE<br>Available at www.becker-antriebe.com/ce |
| This device meets the EMC directives for use in residential and commercial areas. | | | | |
| **Ambient conditions** | | | | |
| Operating temperature | 0 | | 50 | °C |
| Storage temperature | -25 | | 70 | °C |
| Humidity (not condensing) | 10 | 40 | 85 | $\%H_{rel}$ |
| Degree of soiling | | | | 2 |
| **Connections** | | | | |
| Supply 230 V AC | | | | Screw terminals |
| SMI interface | | | | Spring terminals |
| KNX bus system | | | | Spring terminals |
| **Connection terminals** | | | | |
| Supply 230 V AC | | | | max. 2.5 $mm^2$ |
| Stripping length | | | | 6.5 mm |
| Torque | | | | 0.5 - 0.6 Nm |
| SMI interface | | | | max. 1.5 $mm^2$ |
| Stripping length | | | | 8 mm |
| KNX bus system | | | | 0.6 - 0.8 mm Ø |
| Stripping length | | | | 6 mm |
| **Housing** | | | | |
| Degree of protection | | | | IP30 |
| Safety class | | | | II |
| Overvoltage category | | | | III |
| Input/output insulation voltage | | | | 4 kV AC / 1 min |

| Article number | |
|---|---|
| KNX/SMI Actuator REG-3TE 16K BT | 4002 000 001 0 |
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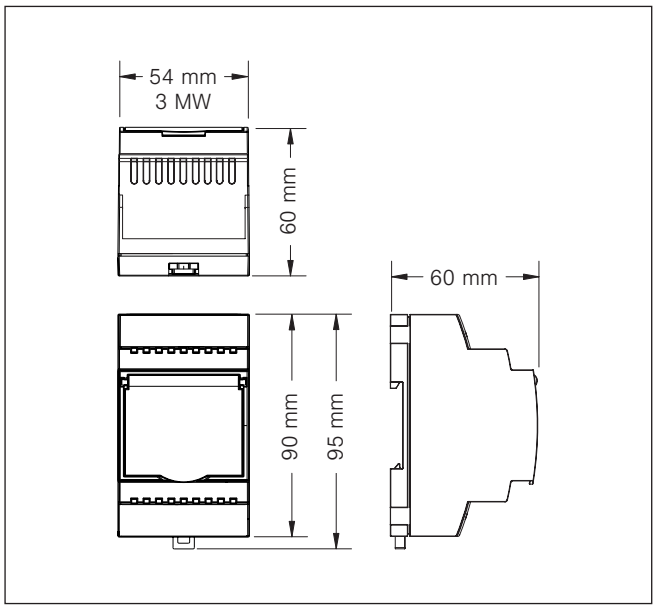
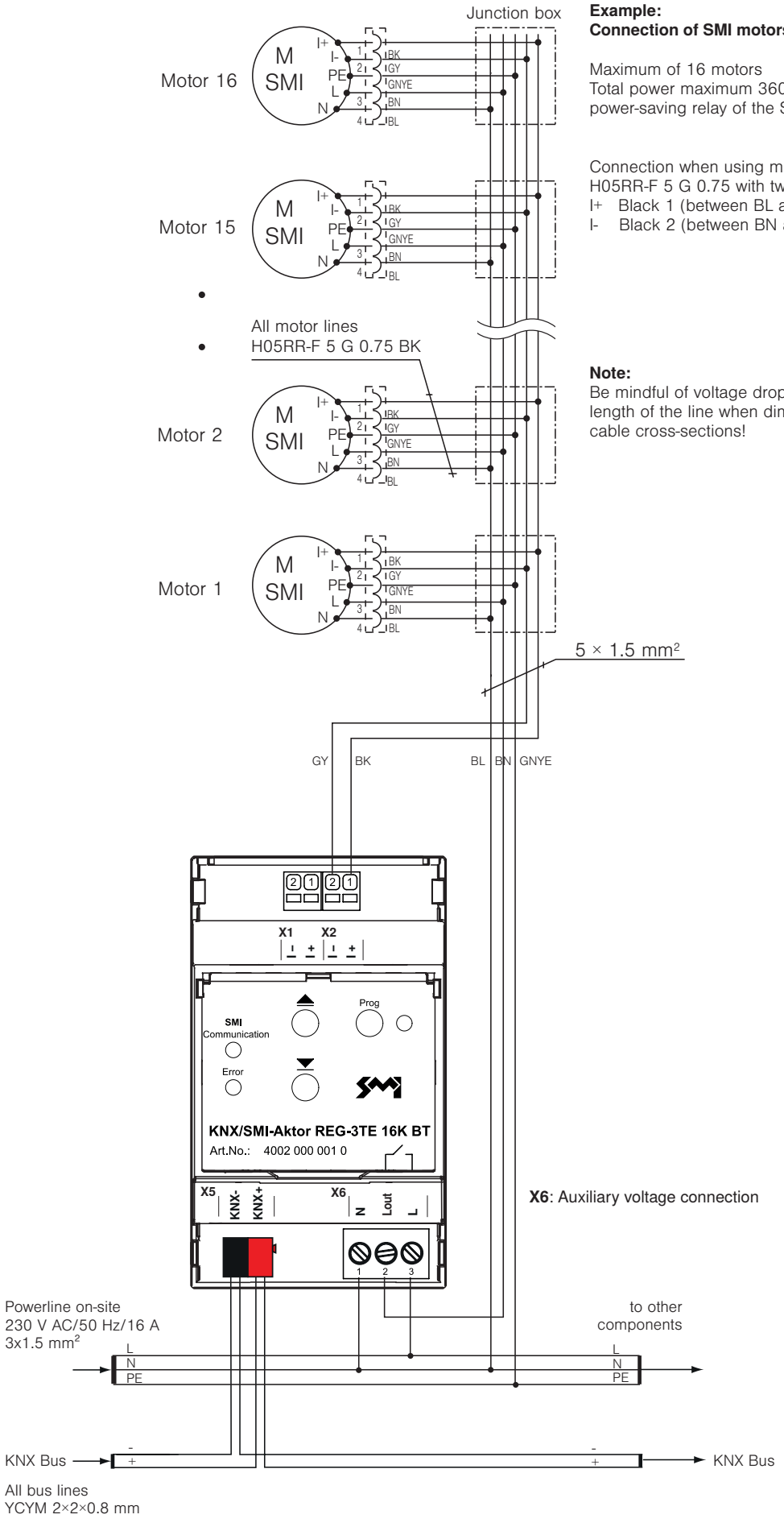



Fig. 4 Dimensions




**Example:**
**Connection of SMI motors**

Maximum of 16 motors
Total power maximum 3600 VA for the power-saving relay of the SMI drives.

Connection when using motor lines H05RR-F 5 G 0.75 with two black wires:
I+ Black 1 (between BL and GNYE)
I- Black 2 (between BN and GNYE)

**Note:**
Be mindful of voltage drops across the length of the line when dimensioning the cable cross-sections!

**X6**: Auxiliary voltage connection

Fig. 5 Connection example

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