Bus supply only. The actuator is operated solely in bus mode. It can communicate over any type of bus or line with a bit time delay (e.g., switching of the relays, slot adjustment). Manual operation is possible. If you use separate fuse boxes for the connections of two related switching channels, please make sure they are on the same phase.

If the mains voltage is looped, protect the mains connection with a 10 A circuit breaker connected upstream as well.

Connections, displays and operating elements

WARNING
Risk of fault injury from electrical current. The device contains no fuses. 

Safety clearance must be guaranteed in accordance with IEC 60664-1. There must be at least 4 mm between the individual cores of the 230 V mains cable and the KNX line.

MTN649908

DANGER
Risk of fault injury from electrical current. The device contains no fuses.

Safety clearance must be guaranteed in accordance with IEC 60664-1. There must be at least 4 mm between the individual cores of the 230 V mains cable and the KNX line.

MTN649908

Manual operation key “Manual”

Manual operation LED “Manual” (red)

Connecting the load

Connect the load voltage. The connected loads without having to load the programming LED goes out.

Put the actuator into operation

Press the programming button.

The programming LED lights up.

Load the address and application into the device from the ETS.

The programming LED goes out.

After downloading, the actuator can have the following statuses:

Only the operating LED lights up

This signals an actuator conformity to that set in the application program. You should now make sure that the loads connected conform to the operating mode of the channel.

Both channel status LEDs and the operating LED flash alternately

This signals an error message. The channel operating mode set on the actuator does not match that in the application. You should then make sure that the connected loads conform to the operating mode of the channel.

Both channel status LEDs and the operating LED flash continuously

If the device is set wrongly, the loads could be damaged. The connected loads must conform to the channel operating mode set on the actuator and the one set in the application.

Press the manual operation key “Manual” for at least 3 s and continue to hold it down.

Now, the manual operation LEDs (red) on the channel status LEDs (red) show the status of the channels.

Manual operation

Normally, set the generic “bus and manual operation” by pressing push-buttons by remote control. However, you can also switch the actuator to manual operation and then use the channel keys to manually raise or lower each blind or switch the loads on and off. In order to be able to do this, the channel keys must be set to “enabled” and mains or bus voltage must be present.

Manual operation before downloading the application for the first time

Immediately after the initial installation, you can switch the actuator to manual operation, e.g. in order to test the devices.

Manual operation with the ETS setting “Bus and manual operation” only

In manual operation, the actuator also responds to KNX telegrams. The command must be given in a specific order.

Exception: Safety and security alarms always have priority over setting.

Manual operation with the ETS setting “Manual operation only” only

In manual operation, the actuator does not respond to KNX telegrams, nor to safety alarms. This setting is useful when carrying out maintenance, for example.

CAUTION
Load faults could be damaged. When operating in “Manual operation only” using the channel keys, prioritized safety function (e.g., a weather alarm position, disabled position) no longer work. To prevent damage, you should therefore be very careful when operating manually.

Make sure that the ETS parameter “Manual operation only” is set to “Manual operation only”, when you hand over the system to the operator.

Time-limited manual operation is another function that can be set in the ETS. Within this function, you can set a time period after which manual operation (including “Manual operation only”) can be cancelled automatically. The actuator then responds to KNX telegrams again.

Changing the actuator over to manual operation

Press the manual operation key “Manual”.

The red manual operation LED (red) lights up. The actuator is in manual operation.

The green operating LED (red) goes out when “Manual operation only” is set in the ETS.

The green operating LED (red) remains on when “Manual operation only” is set in the ETS.

When both green channel keys and LED and ETS operating LED flash simultaneously in manual operation, the actuator then responds to KNX telegrams again.

Useful when carrying out maintenance, for example.

WARNING
Blind/shutter rollers can cause injury when they are moving. If you are operating blinds/ roller shutters using channel keys and do not know that people are in the range of movement.

To raise (arrow up) or lower (arrow down) the blind/shutter roller: press the corresponding channel key.

To halt the movement of travel: press the channel key again.

The corresponding channel status LED lights up during movement.

Controlling the blind/shutter roller in manual operation

Blind switches can only be controlled when the corresponding channel key is pressed. Only then can we be sure that the people are in the range of movement.

To raise (arrow up) or lower (arrow down) the blind/shutter roller: press the corresponding channel key.

To halt the movement of travel: press the channel key again.

The corresponding channel status LED lights up during movement.
For your safety

CAUTION

The device could be damaged.

- Only operate the device according to the specifications stated in the Technical data.

CAUTION

The motors can become damaged.

- Only connect one motor per channel.

Blind/switch actuator introduction

The Blindswitch actuator REG-K/8x16x/10 with manual mode referred to below as actuator:
- controls blind/shutter drives with and position switch independently of one another, - switch loads (illuminated) via separate, floating make contacts.

You can operate each channel either as a blind channel or two switching channels. In the "Switching" channel operating mode, one blind channel is divided into two separate switching channels. You can change the operating channels at the device itself and in the ETS. For further information, please refer to the section "Toggling between the blind and the switching operating mode". You can switch the actuator to manual operation and warn that it works even without ETX/KNX programming, and you can control the connected loads directly at the actuator in the event of a bus failure. The actuator has a bus coupler. It is installed on a DIN profile in the bus connection made via a bus connecting terminal. A data link is not required. It is supplied with power both from the bus and mains. This makes the actuator an independent unit.

Connections, displays and operating elements

Bus supply only

The actuator is operated solely in bus mode. It can contain safety-ignition faults (safety circuit) for a slight time delay (e.g. switching of the relay, idle adjustment). Manual operation is possible.

There is no mains supply.

It may only be possible to operate the actuator - usually, without bus communication. You can activate the loads directly using the channel keys.

Connections and displays of operating elements

Blind switch actuator REG-K/8x16x/10 with manual mode

Connecting instructions

Switch supply only

You can operate each channel either as a blind channel or as a switching channel. In "Switching", one blind channel is divided into two equal switching channels. Each channel can be operated either as a blind channel or as a switching channel. "Switching operation", one blind channel is divided into two equal switching channels. All channels are set to blind operation at the factory. In this state, no application program is loaded. Refer to this chapter to find out how to change the channels.

When and how the LEDs light up

For your safety

DANGER

Risk of fatal injury from electrical current.

Always ensure that the device should only be carried out by trained and qualified electricians. Observe the country-specific regulations as well as the valid KNX guidelines.

CAUTION

The motors can become damaged.

- Only connect one motor per channel.
Switching luminaires in manual operation

- To switch lights on and off: press the corresponding channel key.
- The corresponding channel status LEDs light up when the relay is closed.

Exit manual operation

- Press the manual operation key again.
- The LED will go out. The green operating LED lights up. The actuator now only responds to KNX telegram.

What should I do if there is a problem?

Yellow channel status LEDs and the green operating LED flash together.

- The channel operating mode set on the actuator does not match the channel operating mode set in the application.
- Check which channel operating mode this channel should have. Switch over the channel operating mode at the actuator (see the section “Switching between the blind and the switching operating mode” or the channel operating mode in the application. Check whether the correct loads are connected (motor for the blind channel) or (luminaries for the switching channel).

The green operating LED is not lit:

- The bus voltage has failed.
- The green operating LED is not lit.

Bus and mains voltage have failed.

- The green operating LED is still lit: ETS parameter “Manual operating mode” is set to “Bus and manual operation”. The control command for the actuator came via a KNX telegram. There is no fault.
- Switch the ETS parameter “Manual operating mode” to “Manual operation only”. Please refer to the safety note in the “Manual operation” section.

The red manual operation LED and the green operating LED are not lit. Manual operation cannot be activated.

- “Manual operation enabled” is blocked by an object
- Check both.

The green operating LED is not lit:

- The bus voltage has failed.
- Check bus voltage; only manual operation is possible.
- Application was not loaded properly.
- Load it again.

The green operating LED does not light up, the red manual operation LED lights up.

- Manual operation is active and “Manual operation only” is set in the ETS. Only manual operation is possible. There is no fault:
- Switch off manual operation.

Actuator does not react to the manual operation key: the red manual operation LED does not light up, manual operation is not possible.

- ETS parameter “Manual operation enabled” is set to “blocked”. There is no fault.
- Set the “Manual operation enabled” parameter to “enableable”.
- “Manual operation enabled” is blocked by an object (value 0), there is no fault.
- Enable manual operation via object.

In manual operation, the actuator does not react to the activation of the channel keys, the red manual operation LED lights up, manual operation is not possible.

- The green operating LED is still lit: ETS parameter “Manual operation mode” is set to “Bus and manual operation”, a prioritized function (e.g. weather alarm or lock) is activated, there is no malfunction.
- Wait until the higher-level function has been completed, or switch the ETS parameter “Manual operation type” to “Manual operation only”. Please refer to the safety note in the “Manual operation” section.
- The green operating LED is lit: bus voltage has failed and the ETS parameter “Manual operation when bus voltage fails” has been “blocked”.
- Check the bus voltage.

In manual operation, the actuator controls connected loads without a channel key being pressed.

- The ETS parameter “Manual operating mode” is set to “Bus and manual operation”. The control command for the actuator came via a KNX telegram. There is no fault.
- Switch the ETS parameter “Manual operating mode” to “Manual operation only”. Please refer to the safety note in the “Manual operation” section.

The LEDs

<table>
<thead>
<tr>
<th>Depending on operation:</th>
<th>RUN (on)</th>
<th>Manual (on)</th>
<th>Channel (on)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>On</td>
<td>On</td>
<td>Normal operation</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>Manual operation (ETS, manual operation only)</td>
</tr>
<tr>
<td>Flashing</td>
<td>Flash</td>
<td>Flash</td>
<td>Normal operation - error!</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>The channel whose status LEDs flash; The channel operating mode set on the actuator does not match the channel operating mode set in the application. To rectify the error, see the section “What should I do if there is a problem?”</td>
</tr>
<tr>
<td></td>
<td>On</td>
<td>Flashing</td>
<td>Status query from channel operation</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>The channel whose status LEDs flash; flash = blind operation light up</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>permanently; switch operation</td>
</tr>
</tbody>
</table>

Technical data

External auxiliary voltage:

- AC 110 – 240 V, 50 – 60 Hz, max. 2 A
- Supply from KNX: DC 24 V, max. 175 mA
- Nominal voltage: AC 230 V

For each blind output:

- Nominal current: 10 A, inductive cos ϕ = 0.6
- Nominal power of motor: max. 1000 W at AC 230 V

For each switch output:

- Nominal current: 10 A, ohmic cos ϕ = 1
- 10 A, inductive cos ϕ = 0.6
- Capacitive load: 10 A, max. 105 µF
- Incandescent lamps: AC 230 V, max. 2000 W
- Halogen lamps: AC 230 V, max. 1700 W
- Fluorescent lamps: AC 230 V, max. 1600 W uncompensated; AC 230 V, max. 1000 W parallel-compensated
- Switching frequency: max. 15 times per minute at normal load
- Fuse: per channel one 10 A circuit breaker (connected upstream); only one live conductor may be used per connecting terminal
- Ambient temperature: Operating: -5 °C to +45 °C
- Storage: -25 °C to +55 °C
- Environment: can be used at up to 2000 m above sea level (MSL)
- Max. humidity: 93 %, no moisture condensation
- Operating elements: 1 programming button,
- 1 “Manual” manual operation key,
- 2 channel keys per channel
- Display elements: 1 red LED: programming control,
- 1 green LED: ready for operation: “RUN”,
- 1 red LED: manual operation status,
- 2 yellow status LEDs per blind channel
- KNX connection: two 1 mm pins for bus connecting terminal
- Main connection: 4-gang screw terminals for max. 2.5 mm² / 2 L / 2 N
- Load connection: per blind channel one plug in 4-gang screw terminal for max. 2.5 mm²
- Device width:
- MTN649908: 8 depth units = approx. 144 mm
- MTN649912: 12 depth units = approx. 216 mm

Schneider Electric Industries SAS

If you have technical questions, please contact the Customer Care Center in your country.

www.schneider-electric.com

This product must be installed, connected and used in compliance with prevailing standards and/or installation regulations. As standards, specifications and design develop from time to time, always ask for confirmation of the information given in this publication.