WAREMA KNX Actuator 1MPF.4 UP

Short description

Der SonnenLichtManager

Valid from
01. October 2022
Keep for future use!

General information

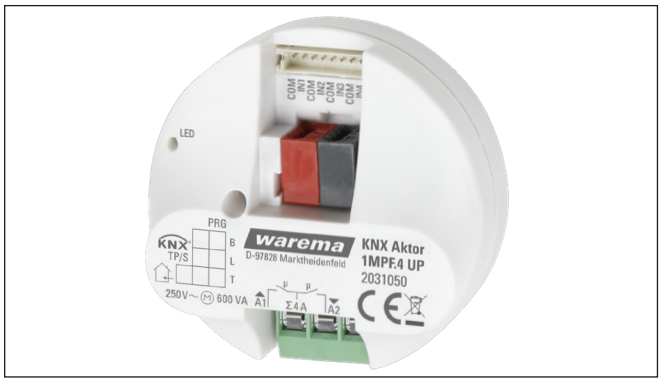


Fig. 1 WAREMA KNX Actuator 1MPF.4 UP

The WAREMA KNX Actuator 1MPF.4 UP is an electronic control device for the control of a motor or for connecting two switchable power consumers (ON/OFF). The floating design of the output allows other systems to be controlled too, e.g. using the manual switch input of a motor control device.

4 digital inputs are provided for connecting binary contacts.

Intended use

The WAREMA KNX Actuator 1MPF.4 UP is an electronic control device for the control of a motor or for connecting two switchable power consumers (ON/OFF).

Any use other than the purpose described in these instructions requires approval from the manufacturer.

Safety instructions

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

CAUTION
Electrical voltage!
There are unprotected live components inside the device.
Observe the VDE regulations.
Connect all lines to be installed in a de-energised state and take safety precautions against accidental switch-on.
Do not commission the device if it is damaged.

Deactivate the device or unit and secure against accidental switch-on if it is to be assumed that hazard-free operation cannot be guaranteed.

Installation information

The device is intended for proper use only. All warranty claims become void if the device is subjected to any improper modification or use that does not comply with the operating instructions.

The device must be inspected for potential mechanical damage immediately after being unpacked. If the device has been damaged during transport, the supplier must be notified of this immediately.

The device may only be used as a fixed installation, i.e. only when fully assembled and after all installation and commissioning procedures are completed

and only in the intended environment.

WAREMA Renkhoff SE is not liable for any changes to the norms and standards after publication of the operating instructions.

Functions:

- Floating multifunctional output for a 230 V drive (shading, window) or for connecting two switchable devices (light, fan)
- 4 binary inputs
- Position feedback on moving position
- Position memory (moving position) via 1 bit object (storage and retrieval via push button, for example)
- Scene control with 16 scenes
- Safety objects of different priority with cyclical monitoring
- Activation or deactivation of the automatic inputs (e.g. sun control, slat tracking) with parameterisable control mode return function

Configuration is performed with KNX Software ETS 5. The **product database** required for this (.knxprod) can be found in the online catalogue of the ETS or online at

http://www.warema.de/knx.

Scope of delivery

- Actuator
- Braided hose for KNX line and inputs
- Connecting line for inputs

Installation location

The device is designed for installation in a flush-mounted box (electronics box). The housing of the device must not be opened.

Information on installation and commissioning

Never expose the actuators to water (rain) or dust. This can damage the electronics. The relative humidity must not exceed 80%. Avoid condensation.

After the bus voltage is applied, the device performs an initialising phase lasting a few seconds. No information can be received or sent by the bus during this time.

In the case of KNX devices with safety functions (for example a wind or rain barrier), cyclical monitoring of the safety objects must be set up. A ratio of 1:3 is optimal (example: if the weather station transmits a value every 5 minutes, the monitoring time in the actuator should be set to 15 minutes).

Cleaning

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

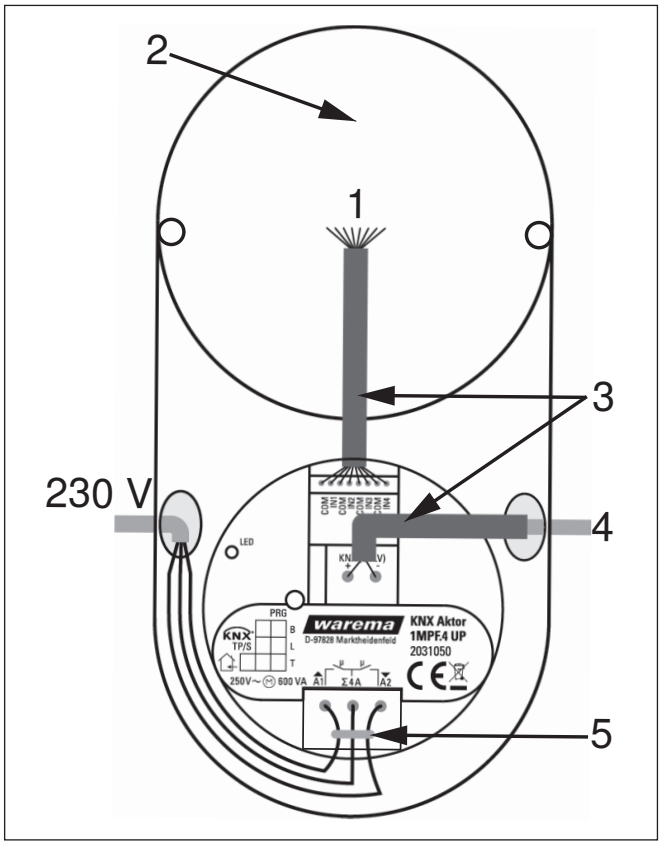


Fig. 2 Installation scheme in an electronics box

1 Binary inputs

2 Installation location for push button

3 Braided hose

4 KNX bus line

5 Cable tie

Addressing device to bus

The device is supplied with the bus address 15.15.255. Another address can be programmed in the ETS by overwriting the address 15.15.255, or taught in using the programming button.

Connection

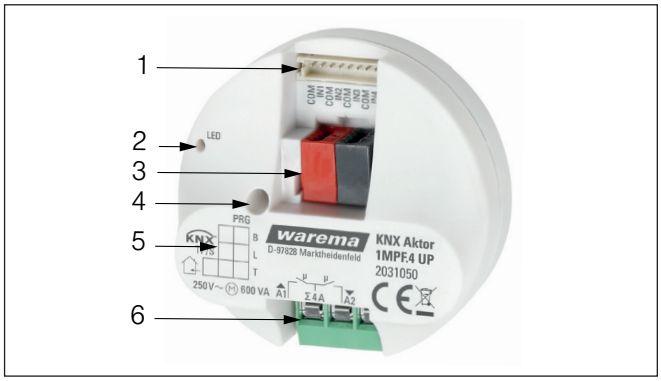


Fig. 3 View

1 Binary inputs:
Slot for cable whip

2 programming LED (recessed)

3 KNX plug terminal +/-

4 Programming button (recessed)

5 Label field

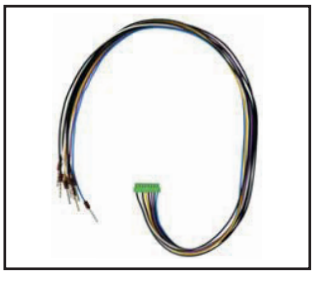
6 Connection terminal
U_A: voltage, maximum 270 V AC
Up/A1: Switch motor upwards or power consumer 1
Down/A2: Switch motor downwards or consumer 2

The WAREMA KNX Actuator 1MPF.4 UP is installed in a flush-mounted box. Connection via KNX connection terminal to the KNX bus. A power supply is also required for the connected drive and/or the power consumers (floating output).

CAUTION
During installation and line routing on the KNX connection and the inputs, observe the regulations and standards applicable for SELV power circuits!

The physical address is assigned by ETS. The actuator is equipped with a push button, with control LED, for this purpose.
Use the accompanying connecting line to connect the digital inputs (Fig. 1, No. 1). The lines for the inputs can be extended up to 10 m.
All COM connections of the inputs are bridged internally (black lines).

Connecting line for digital inputs:



Input 1:
black (COM) / white

Input 2:
black (COM) / yellow

Input 3:
black (COM) / violet

Input 4:
black (COM) / blue

Output connection examples:

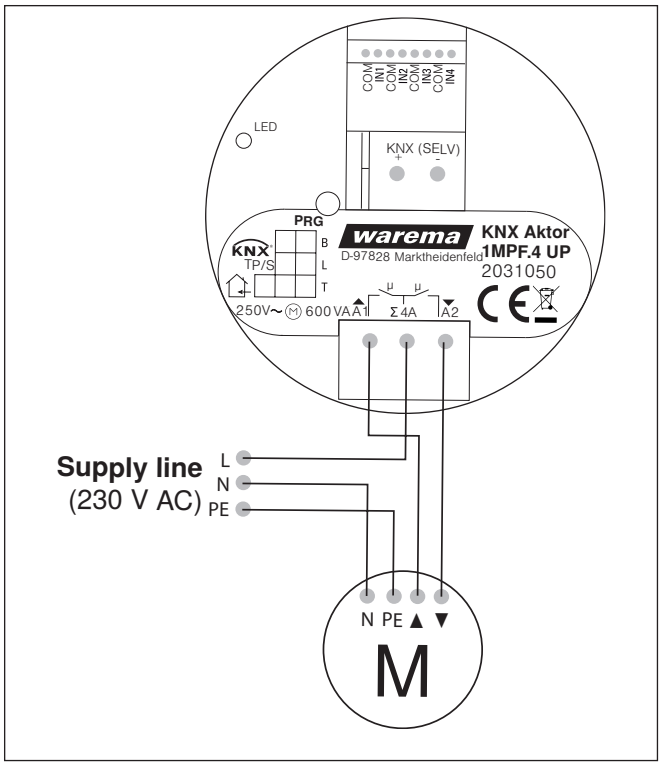


Fig. 4 Drive 230 V AC

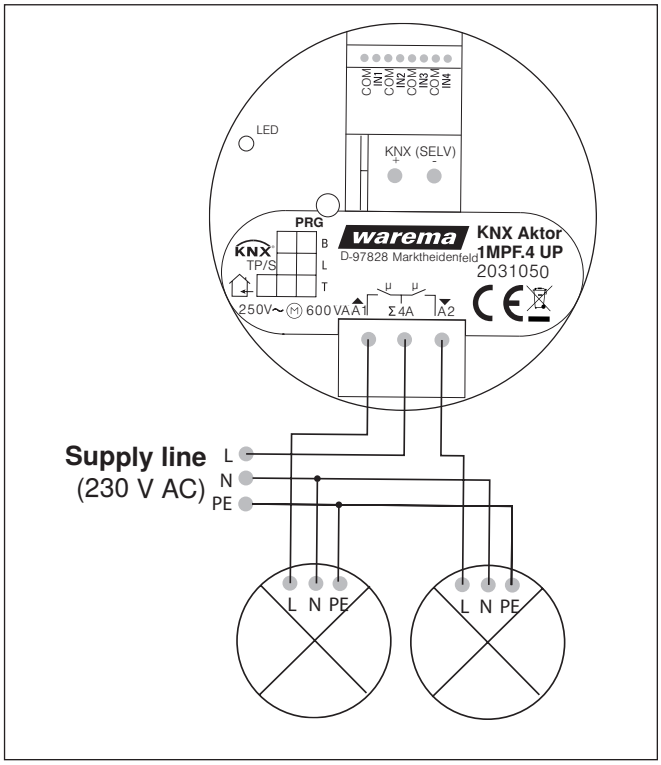


Fig. 5 Two power consumers 230 V AC

Connection example inputs:

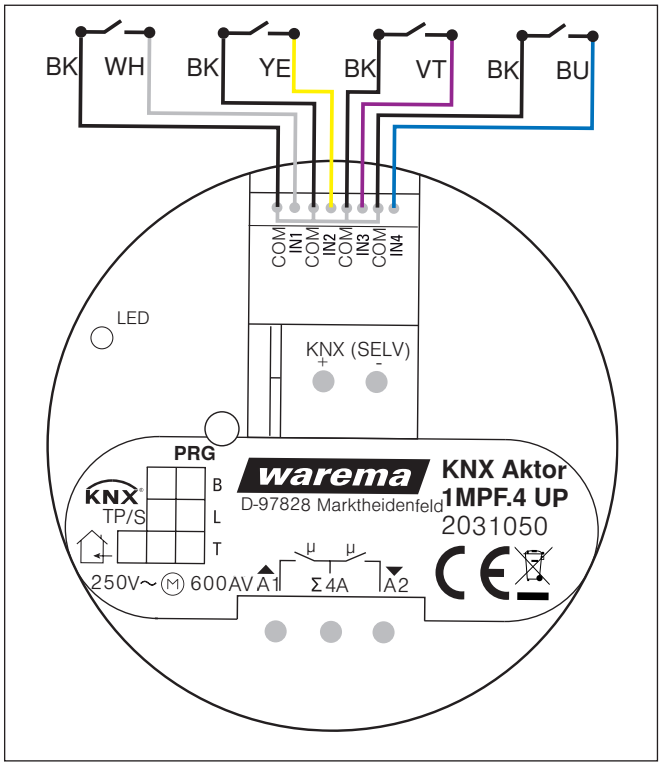


Fig. 6 Connection example with four push buttons

Technical data

Housing	Plastic
Colour	White
Installation	Flush-mounted (electronics box); The housing of the device must not be opened
Degree of protection	IP 00
Dimensions	ø approx. 53 mm, depth approx. 24 mm
Total weight	< 40 g
Ambient temperature	Operation -5...+45°C, Storage -30...+85°C
Ambient humidity	5... 80% RH, not condensing
Operating voltage	KNX bus voltage
Current consumption from KNX bus	Relays not pulled in: 12 mA 2 relays pulled in: 25 mA
Output switching capacity	5 A, maximum 270 V AC/30 V DC
Inputs	4x digital, max. line length 10 m
Data output	KNX +/- bus plug terminal
Medium	TP1-256
Configuration Mode	S-Mode
Group addresses	max. 254
Allocations	max. 254
Closing contact	µ (<1.2 mm)
Switching current (in ohms)	max. 4 A
Total current	max. 4 A (protected with integrated T4A/250 V fuse)
Motor	max. 600 VA
LEDi (SBL) Lamps per contact	max. 15 W
Fluorescent lamps / CFL/ LED (EVG) per contact	max. 36 W
Overvoltage category	III
Article number	2031050

The product conforms with the regulations of the EU directives.

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.