

Universal dimming actuator in the MIX2 range

DMG 2 T KNX (basic module) 4930270
DME 2 T KNX (extension module) 4930275
DMB 1 T KNX (performance upgrade) 4930279



1. Designated use

The 2-way universal dimmer actuators in the MIX2 range switch and dim the brightness of different light sources such as incandescent lamps, halogen lamps, HV and LV halogen lamps (conventional or with electronic transformer), dimmable compact fluorescent lamps (energy-saving lamps) or dimmable LED lamps for 230 V.

The MIX2 range is a series of devices comprising basic modules and extension modules. Up to 2 MIX or MIX2 extension modules can be attached to a basic module in this range.

The ETS (Engineering Tool) can be used to select application programmes, allocate the specific parameters and addresses and transmit them to the device.

The device is designed for installation on DIN top hat rails (in accordance with EN 60715) and conforms with EN 60669-2-1. Only to be used in closed, dry rooms.

2. Safety instructions



WARNING

Danger of death through electric shock or fire!

- Installation should only be carried out by a professional electrician!

Please note the provisions of EN 50428 for switches or similar installation material for use in building systems technology with regard to the correct installation of bus lines and device start-up procedure.

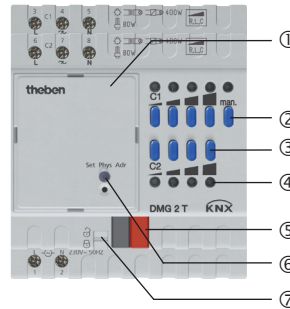
Tampering with, or making modifications to, the device will invalidate the guarantee.

- Always operate electronic and conventional transformers with the minimum load designated by the manufacturer.
- Only use dimmable energy-saving lamps; normal energy-saving lamps could be irreparably damaged.
- When replacing lamps, switch off the power supply (at the appropriate circuit breaker) to ensure automatic load detection can be reactivated and it is protected (must be enabled via the ETS).
- Do not connect dimmer load connections (L') in parallel (exception: parallel operation of channel 1 and channel 2).
- Do not bypass or short-circuit the dimmer.
- Do not install an isolation or adjustable transformer before the dimmer.
- Do not mix connection of wound and electronic transformers or energy-saving lamps and LED lamps to a channel.
- Correct, automatic load detection is only possible with a connected load.

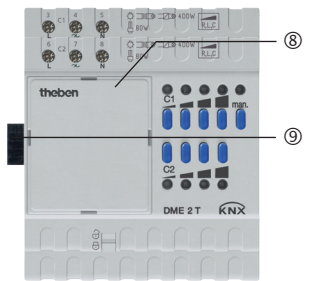
- Only use transformers approved by the manufacturer for dimmer operation.
- Do not connect inductive load (wound transformer, fan motor) if the RC load application has been set. The dimmer can be destroyed.

3. Description

DMG 2 T KNX
(basic module)



DME 2 T KNX
(extension module)



DMB 1 T KNX (booster)



- ① KNX bus module
- ② Manual push button **man.**
- ③ Channel push buttons C1–C2 with dimming values of 0–100 %
- ④ Status LEDs
- ⑤ Bus connection: Ensure correct polarity!
- ⑥ Programming keys and LED for physical address
- ⑦ Slide for locking KNX bus module ① or the cover ⑧
- ⑧ Cover
- ⑨ Slidable plug between extension module and basic module

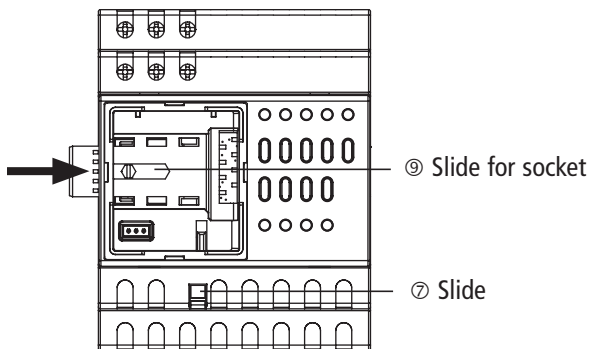
Status LEDs

LED 1	Dimming value up to 25 %
LED 1 and 2	Dimming value 25 %–50 %
LEDs 1, 2 and 3	Dimming value 50 %–75 %
LED 1, 2, 3, and 4	Dimming value from 75 %
LEDs 2, 3 and 4 flash	Excess temperature
LEDs 1, 2, 3 and 4 flash	Short circuit

4. Installation

Basic module/extension module

- Clip basic module on the distributor rail.
- Unlock ⑦ slide and remove ⑧ cover extension module.
- Clip extension module to the distributor rail.
- Push both modules **tightly** together.

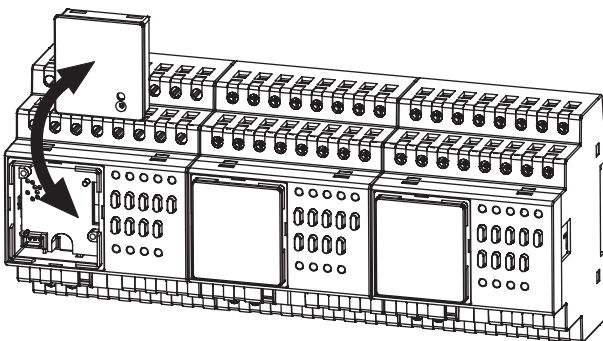
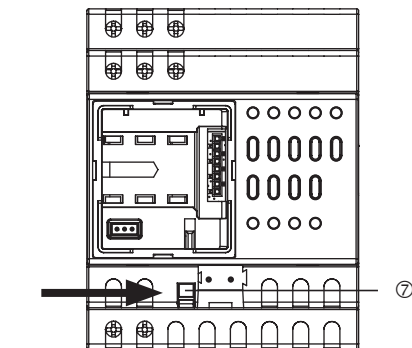


- Push ⑨ slide to the left.
- Replace cover.
- Relock cover ⑦ with slide.

KNX bus module

Basic module and KNX module can be separated mechanically. Manual start-up and operation of universal dimming actuators are possible without KNX bus module ①.

- Unlock KNX bus module ① on basic module with slide ⑦ and remove or replace and lock.



Manual operation

(must be enabled via the ETS)

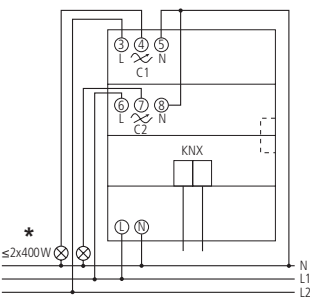
- Press **man.** ② key (LED lights up).
- Press ③ channel keys.

Each channel can be operated via 4 channel buttons with dimming values of

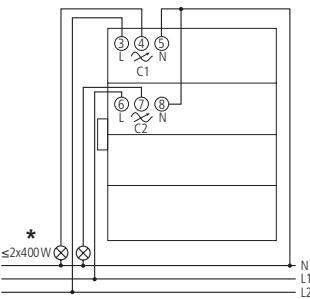
- push button 1: On 25 %, Off 0 %
- push button 2: 50 %,
- push button 3: 75 %
- push button 4: 100 %

5. Electrical connection

DMG 2 T KNX

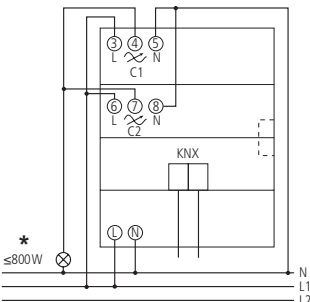


DME 2 T KNX

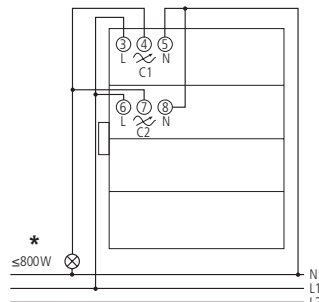


Parallel operation

DMG 2 T KNX



DME 2 T KNX

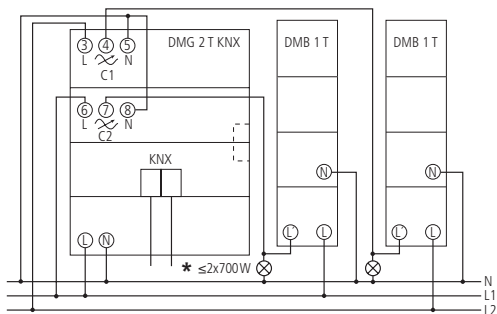


* Incandescent lamp load

Performance upgrade

DMG 2 T KNX

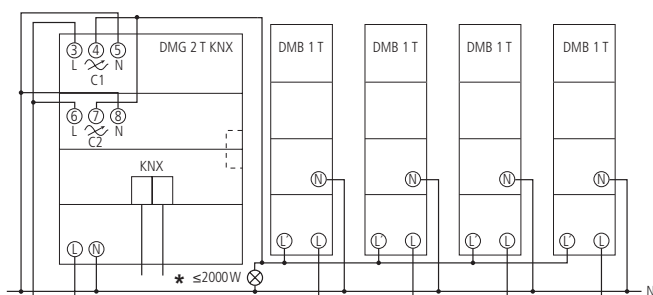
DMB 1 T KNX



Performance upgrade

DMG 2 T KNX

DMB 1 T KNX



* Incandescent lamp load

➤ Maintain ventilation space of 8 mm right and left (with DMB 1 T KNX).

- The channels can be operated on different line conductors (with DMG 2 T KNX + DME 2 T KNX).
- The performance upgrade (DMB 1 T KNX) must only be operated on the same line conductor as the relevant channel of the dimmer (DMG 2 T KNX/DME 2 T KNX).

6. Technical data

DMG 2 T KNX/DME 2 T KNX

- Operating voltage: 230 V AC +10 % –15 %
- Frequency: 50 Hz
- Standby min.: DMG 2 T KNX : 0,9 W
DME 2 T KNX: 0,6 W
DMB 1 T KNX: 0,2 W
- Permissible ambient temperature: –5 °C to +45 °C
- Protection class: II subject to correct installation
- Protection rating: IP 20 in accordance with EN 60529
- KNX operating voltage: bus voltage, ≤10 mA (DMG 2 T KNX)
- Load types: R/L/C
- Incandescent lamp load: 400 W
- Inductive load: 400 W
- Electronic transformers: 400 W
- Max. load with dimmable energy-saving lamps: 80 W
- Max. load with dimmable 230 V LED lamps: 60 W
- Permissible load in parallel operation:
Incandescent lamp load: 1 x 800 W
Energy-saving lamps: 1 x 140 W
dimmable 230 V LED lamps: 1 x 120 W
- Pollution degree: 2
- Rated impulse voltage: 4 kV

Observe deviating technical data on the device rating plate!

Technical changes reserved.

The ETS database is available at www.theben.de

Please refer to the KNX Handbook for detailed functional descriptions.

Service address

Theben AG
Hohenbergstr. 32
72401 Haigerloch
DEUTSCHLAND
Phone +49 (0) 74 74/6 92-0
Fax +49 (0) 74 74/6 92-150

Hotline

Telephone +49 (0) 74 74 6 92 369
Fax +49 (0) 74 74 6 92 207
hotline@theben.de
Addresses, telephone numbers etc.
www.theben.de