



myTEM Dimmer Modul
MTDIM-100

The dimmer module MTDIM-100 from myTEM extends your smart home system with switching and dimming functions for incandescent or halogen lamps. The digital inputs are independent, but can be assigned directly to the outputs if desired.

The programmable behavior allows a flexible use of the device in the house.

Further information can be found on our website:
<https://www.mytem-smarthome.com/web/en/download>



ATTENTION:

This device is not a toy. Please keep it away from children and animals!

Please read the manual before attempting to install the device!

These instructions are part of the product and must remain with the end user.

Warning and safety instructions

WARNING!

This word indicates a hazard with a risk that, if not avoided, can result in death or serious injury. Work on the device must only be carried out by persons with the necessary training or instruction.

CAUTION!

This word warns of possible damage to property.

SAFETY INSTRUCTIONS

- Operate this device only as described in the manual.
- Do not operate this device if it has obvious damage.
- This device shall not be altered, modified or opened.
- This device is intended for use in buildings in a dry, dust-free location.
- This device is intended for installation in a control cabinet. After installation, it must not be openly accessible.
- Electrical equipment may only be installed and fitted by qualified electricians who are familiar with and comply with the applicable regulations and standards.
- Digital inputs, CAN bus and device supply must comply with the ELV requirements. Do not connect ELV and mains voltage together. (ELV = extra-low voltage)
- Do not connect any lights with integrated dimmer.** Otherwise the device may be damaged.
- Do not connect any LED or compact fluorescent lamps that are not specifically designed for dimming.** Otherwise the device may be damaged.
- When operating with inductive transformers, protect them according to the manufacturer's instructions on the primary side.** Only use safety isolating transformers according to IEC/EN 61558-2-6.

DISCLAIMER

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Trademarks

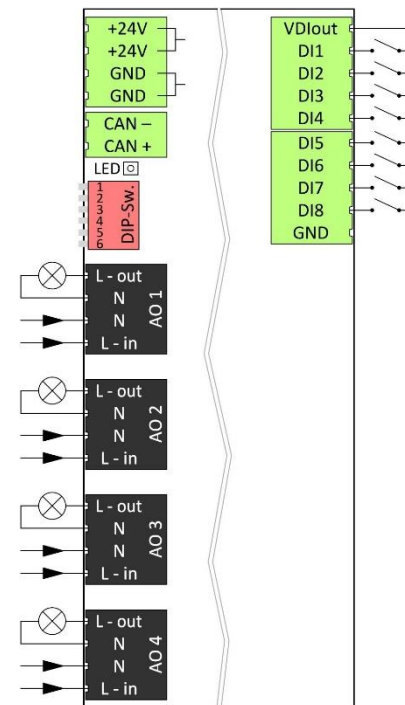
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Applications:

- Switching and dimming of incandescent or halogen lamps
- Switching and dimming of dimmable inductive transformers with halogen or LED lamps
- Operation by means of buttons, sensors via the central server

Functions:

- Supply voltage 24 VDC ± 10% with support terminals for further wiring
- CAN bus
- 8 digital inputs 24 VDC (DI1 – DI8) for e.g. external switches
- 24 VDC power supply, 100 mA, for digital inputs DI1 – DI8 (VDIout)
- 4 analogue outputs (AO1 – AO4), selectable for leading or trailing edge control
- Manual positions of the outputs via DIP switch for easy commissioning
- The device is installed in a control cabinet, mounted on a 35 mm DIN rail



Installation

WARNING! Depending on national safety standards, only authorized and/or trained technicians may be allowed to perform electrical installations on the power grid. Please inform yourself about the legal situation before installation.

WARNING! The device is not suitable for a shutdown, i.e. it does not provide disconnection or interruption. Even when the device is switched off, the load is not galvanically isolated from the mains

WARNING! If the set operating mode and load type do not match, there is a risk of destruction. Set the correct operating mode before connecting or replacing the load.

Please install the device according to the following steps:

- WARNING!** Make sure that the device is disconnected from the power supply or that the devices in the control cabinet are disconnected from the mains.
- WARNING!** Connect the device according to the circuit diagram of the myTEM ProgTool or the terminal assignment from the picture above. Incorrect wiring can result in injury or death or damage the device.
- CAUTION!** The device shall only be operated with stabilized power supplies (24 VDC). Connecting to higher voltages will damage the device.
- The last device on the CAN bus requires the terminating resistor of 120 Ω **enclosed with the myTEM Smart Server** via terminals (CAN +/-).
- WARNING!** Switch on the power supply and, if necessary, check the wiring with the manual positions via the DIP switch. **Take care of your safety as the devices are live.**

Manual positions via DIP switch

With the aid of the DIP switch, the outputs can be checked after installation.

- CAUTION!** While manual settings are used, the control commands from the myTEM Smart Server or myTEM Radio Server are ignored.
- CAUTION!** Before starting, set all DIP switches to position OFF, i.e. upwards. This avoids that e.g. OPEN / CLOSE commands are set at the same time.
- To check the outputs set DIP switch 6 down to ON. With the DIP switches 1 - 4 you can now switch the analogue outputs AO1 – AO4 from 0% to 100%.

LED display

The LED next to the CAN connector may show the following states:

- LED green:** Device started and connection to the myTEM Smart Server or myTEM Radio Server in order
- LED flashing green:** Device is in manual position
- LED red:** Device started but no connection with the myTEM Smart Server or myTEM Radio Server
- LED off:** Device not powered, not started or broken

Behavior after power failure

After a power failure, all outputs are switched off until the new settings are received from the myTEM Smart Server or myTEM Radio Server.

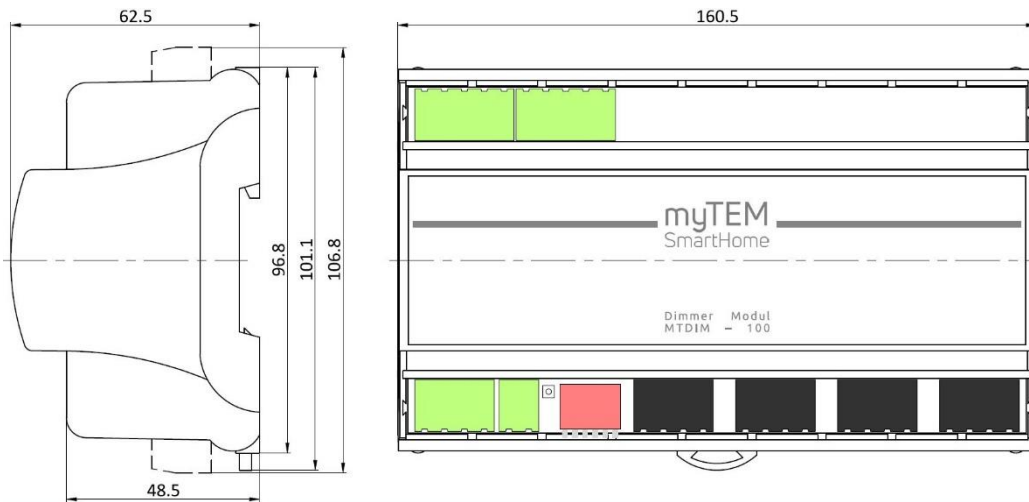
Quick trouble shooting

The following hints may help solving trouble:

- Make sure that the power supply is connected with the correct polarity. With wrong polarity the device does not start.
- If a device cannot establish communication to the myTEM Smart Server or myTEM Radio Server, check if the CAN bus (+/-) is correctly wired and the ground (GND) is connected. A missing ground connection (usually available via power supply) can affect the communication.
- If a device cannot establish communication to the myTEM Smart Server or myTEM Radio Server, check whether the terminating resistor of 120 Ω at the last device is connected to the CAN bus. If missing, please add it via terminals (CAN +/-).

Technical specifications

Dimensions (W x H x D)	160.5 x 101.1 x 62.5 mm (height with connectors 106.8 mm)	
Installation / mounting	On 35 mm DIN rail	
Operating voltage	24 VDC ± 10%	
Power consumption in standby	Device for continuous operation, no standby mode	
Power consumption in operation	0.4 W, if all inputs are open and all outputs are turned off 1.6 W, if all inputs are short-circuited to VDIout and all outputs are turned on	
Load	4x 250 W, for resistive, capacitive and inductive loads, maximum cable length 20 m	
Power supply for digital inputs	24 VDC, 100 mA	
Ambient temperature for operation	0 °C – 50 °C	
Ambient temperature for storage	-20 °C – 60 °C	
Ambient humidity	5 %RH – 85 %RH (non condensing)	
Wire cross-section connectors	0.25 mm ² – 2.5 mm ²	
Stripping length for connectors	ca. 7 mm	
Tightening torque for connectors	0.5 Nm	
Degree of protection provided by enclosure	IP 20 (after installation)	(according to EN 60529)
Protection class	II	(according to EN 60730-1)
Overvoltage category	II	(according to EN 60730-1, resp. EN 60664-1)
Pollution degree	2	(according to EN 60730-1)
Electrical safety	EN 60730-1:2016 + A1:2019	
EMC	EN 60730-1:2016 + A1:2019 EN IEC 61000-6-2:2019	EN 61000-6-3:2007 + A1:2011 / AC:2012
RoHS	EN IEC 63000:2018	
CE conformity	2014/35/EU (LVD) 2014/30/EU (EMC)	2011/65/EU (RoHS)



Belegungsplan / Assignment plan / Plan d'allocation

