



myTEM DALI module
MTDAL-100

The MTDAL-100 is a DALI module from myTEM which enables you to expand your smart home system with a controller for intelligent DALI lighting products. Up to 64 DALI products can be controlled via the DALI bus.

The DALI module is connected to the CAN bus from the myTEM Smart Server and with the help of the extremely powerful myTEM ProgTool it is easy to integrate the DALI lighting products.

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.

DISCLAIMER

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What is DALI?

The Digital Addressable Lighting Interface (DALI) is an interface definition in building automation for the transmission of control signals for lighting equipment. For this purpose, the ballasts are wired in parallel and linked together via the controller.

Up to 64 operating devices can be individually addressed and freely divided into 16 light groups and 16 light scenes.

In addition to the switching of the lighting devices, the status and individual parameters (dimming values, etc.) can also be queried.

Product description

The MTDAL-100 is a DALI module from myTEM which enables you to expand your smart home system with a controller for intelligent DALI lighting products. Up to 64 DALI products can be controlled via the DALI bus.

The myTEM DALI module must be powered by a 24 VDC power supply and connected to a myTEM Smart Server via the CAN bus. The device is installed in a control cabinet, mounted on a 35 mm DIN rail.

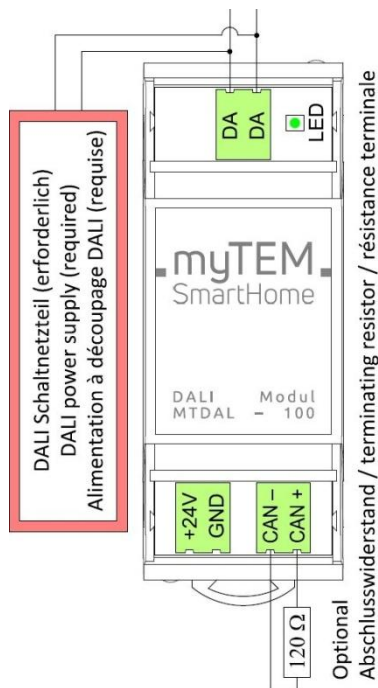
Installation

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

CAUTION! The DALI bus requires an external DALI power supply for correct operation. The DALI power supply is separately available.

Please install the device according to the following steps:

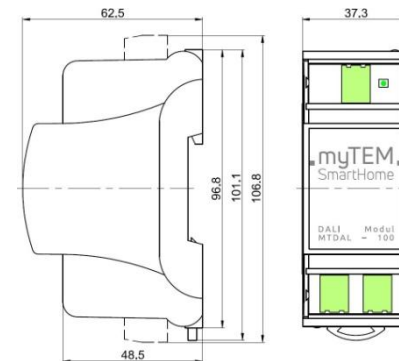
- WARNING!** Make sure that the devices are disconnected from the power supply.
- WARNING!** Connect the myTEM Radio Base module according to the diagram above or at the back. In order to use the device, a connection via CAN bus to a myTEM Smart Server, a 24 VDC power supply and an external DALI power supply is required.
- CAUTION!** The device shall only be operated with stabilized power supplies (24 VDC). Connecting 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 +/-).
- Turn on the power.
- With the myTEM ProgTool you can now add the myTEM DALI module to your myTEM Smart Server.



Notes on DALI wiring

The DALI module has been developed according to the standards IEC/EN 62386-101:2014 and IEC/EN 62386-103: 2014. This results in the following notes:

- The bus wiring should be connected in a star topology, a linear topology or a mixture of both. The wiring shall not be done in a ring structure.
- The two leads which serve as the bus shall be located in the same cable or cable conduit. The two leads shall be next to each other in order to prevent unintended coupling to other signals.
- The maximum voltage drop between transmitter and receiver must not exceed 2.0 V.
- The maximum cable length is 300 m with a cross section of 1.5 mm².



Technical specifications

Dimensions (W x H x D)	37.3 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	
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 of 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)
Safety	EN 60730-1:2016 + A1:2019	EN 62386-101:2014
EMC	EN 60730-1:2016 + A1:2019	EN 55015:2019
	EN 61547:2009 / AC:2010	
	EN IEC 61000-6-2:2019	EN 61000-6-3:2007 + A1:2011 / AC:2012
DALI	EN 62386-101:2014	EN 62386-103:2014
RoHS	EN IEC 63000:2018	
CE conformity	2014/30/EU (EMC)	2011/65/EU (RoHS)

LED display

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

- LED green:** Device started and connection to the myTEM Smart Server or myTEM Radio Server working
- 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

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 +/-).