DD400L MKII – Operating instructions (valid for units with s/n 2233 and up)

The DD400L is a dimmer module, intended to be connected within a Domintell system to a DDIM01 module, and designed for cabinet installation on Din rail in electrical networks 230V AC 50 Hz.

The first use of DD400L is lighting. It can dim up to 400W halogen lamps, of 200W Leds, with possible selection between 4 operation modes.

It connects exactly like any other module of the Domintell DD range (DD75, DD500, DD750, DD1000), with the same wiring.

This means :

- on the power side (up) :
  Phase (P) – Neutral (N) to electrical network (on the left) ,
  Neutral (N) – Phase (Out) to the lights (on the right)
- on the control side (down) : connection to a DDIM01 module.

The DD400L dims following lightings up to 400W total :

- 230V classical bulbs or halogens
- 12V halogens on ferromagnetic transformers
- 12V halogens on electronic transformers (leading or trailing edge)

Note : ALL connected lightings MUST BE SAME, the sum of their powers may not exceed 400W

The DD400L dims following lightings up to 200W total :

- 230V Leds, including "filament" Leds
- Leds on manufacturer-provided 230V Led drivers (leading or trailing edge)

Note : ALL connected Leds or Led systems must be SAME, must be DECLARED AS DIMMABLE by their manufacturer, no more than 30 units, and the sum of their powers may not exceed 200W

Please contact Domintell first before any use with other kinds of loads.
Please note also that the 30 units / 200W limits can be reduced for some Leds models (existing or to come) – do not hesitate to contact us.

Dim level and minimum start value are introduced as usual in the programmation of the Domintell system

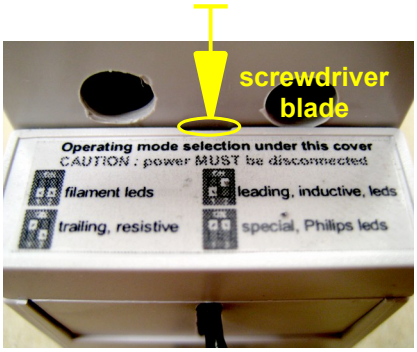
Protections

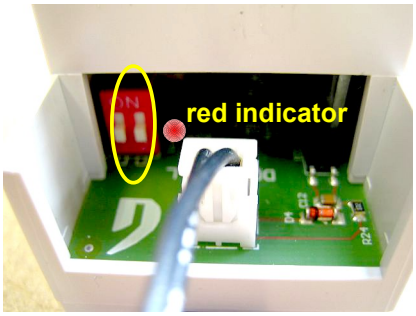
- resettable : overload, internal temperature
- not resettable (lightning, exceptional dysfunction...) : front panel fuse 230V T2.5A

Installation

- before any connection, disassemble the cover on the control side (down) and proceed to manual selection of the lighting system
- reassemble the cover
- install and connect in the electrical panel
- Warning : power connections must be absolutely achieved like indicated, no inversions allowed. The P connection on the left must go to the PHASE of the electrical network. The P connection on the right must go to the lightings. The N connection on the left must go to the NEUTRAL of the electrical network and is mandatory. The N connection on the right is not needed if the neutral is already connected directly to the lightings.

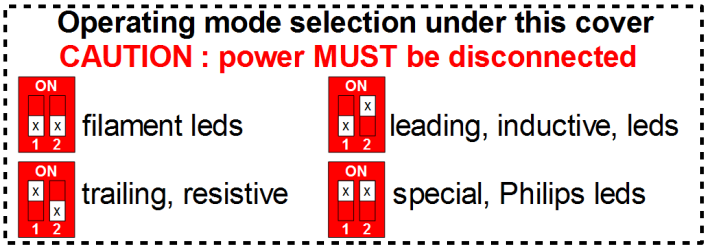
Selection of the lighting system





Selection is done manually with the DIP switch located inside the DD400L, under the plastic cover (down) protecting the DDIM01 connection. Use a small flat blade screwdriver to open, **after having fully disconnected the unit from the electrical power network.** After reconnection, the selection is confirmed by the number of flashes of a red indicator. Then re-install the cover

The plastic cover is fitted with a sticker reminding the DIP switch codes and the safety rules



Position 0 : Switches **1 and 2 are down**. FILAMENT LEDS.
Red indicator shows 4 flashes. Use for 230V "filament" Leds. This position allows flickerless dimming of filament Leds at low level. It can also be used for flicker cancellation with other types of Leds, but if they have a capacitive behaviour, the total connectable power will stay quite limited.

Position 1 : Switch **1 is up**, 2 is down. RESISTIVE LOADS and TRAILING EDGE.
Red indicator shows 1 flash. Use for following kind of lightings :

- 230V classical bulbs or halogens - 400W
- 12V halogens on trailing edge electronic transformers - 400W
- Leds on manufacturer-provided 230V trailing edge Led drivers – 200W, max 30 units

Position 2 : Switch **2 is up**, 1 is down. INDUCTIVE LOADS and LEADING EDGE (TRIAC mode).
Red indicator shows 2 flashes. Use for following kind of lightings :

- 12V halogens on ferromagnetic transformers - 400W
- 12V halogens on leading edge electronic transformers - 400W
- Leds on manufacturer-provided 230V leading edge Led drivers – 200W, max 30 units
- some kinds of 230V Leds like General Electric – 200W, max 30 units

Position 3 : Switches **1 and 2 are up**. SPECIAL MODE LEDs.
Red indicator shows 3 flashes. Use for following kind of lightings :

- some kinds of 230V Leds like Philips – 200W, max 30 units

Settings of DDIM01 in Domintell software

Ensure that the single edge mode is checked ON in Domintell software for DDIM01 outputs connected to DD400L

Important remark on selection for Leds
There are many kinds of dimmable Leds, they may all be used without risk on any of the 4 positions, but only one position will respond optimally. The other positions may give :

- a non-linear dimming curve (mainly on position 1)
- a high thermal dissipation of the dimmer (mainly if Philips Leds are used on position 2)
- no operation (electronic protection is triggered). In this case, disconnect the power to reset, and try on another position after.

Domintell DD400L is manufactured in Belgium,
by TRUMP Electronics S.A.
http://www.trump.be http://www.domintell.com
TRUMP ELECTRONICS EN_02052016_5