DOMESTIA

Working to make your life simple

User Guide

DML-004-003

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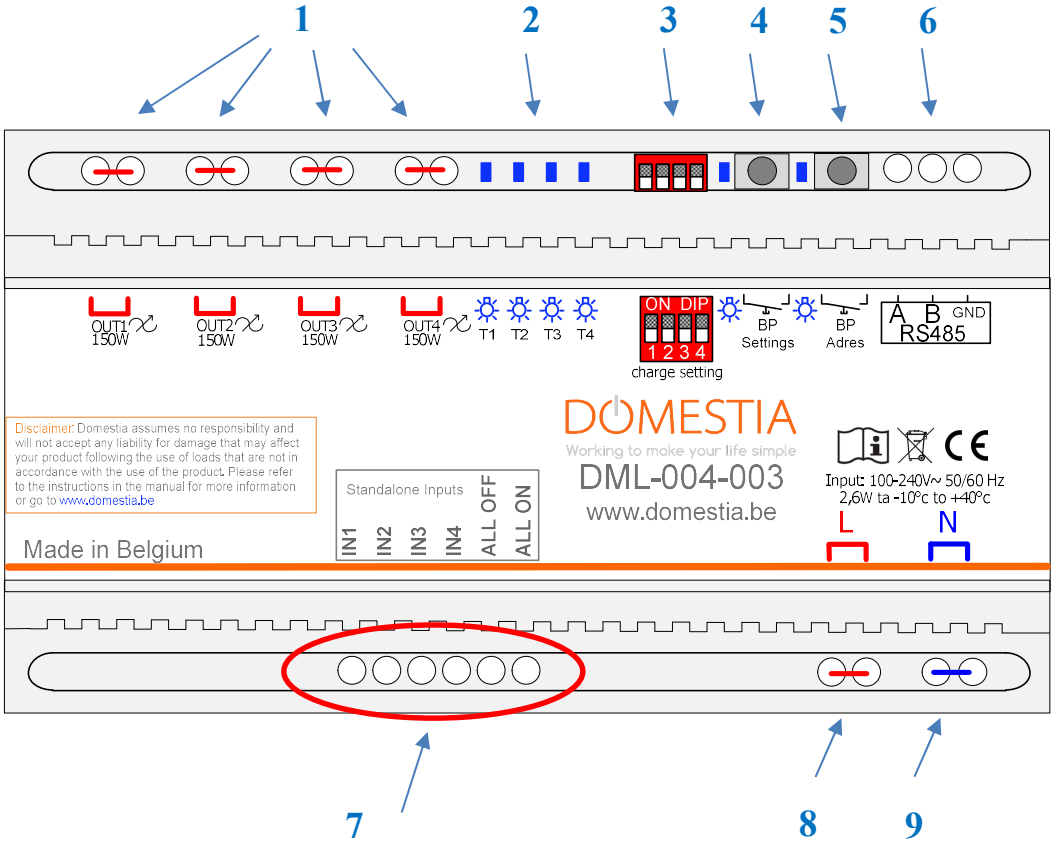
STAND ALONE use also

1. DESCRIPTION

Module DML-004-003 allows you to dim the luminosity on the followings loads

- Dimmable LED lights 230V: 3W à 150W
- Incandescent lights and halogens 230V : 5W à 250W
- LV Halogen (230V) : 5W à 250W
- Very Low Voltage Halogen (12V or 24V) with an electronic or electromagnetic transformer.

⚠ **Non dimmable lights are not compatible with this product.**
⚠ **Make sure to always take into account the maximum power allowed in function of the type of variable load.**



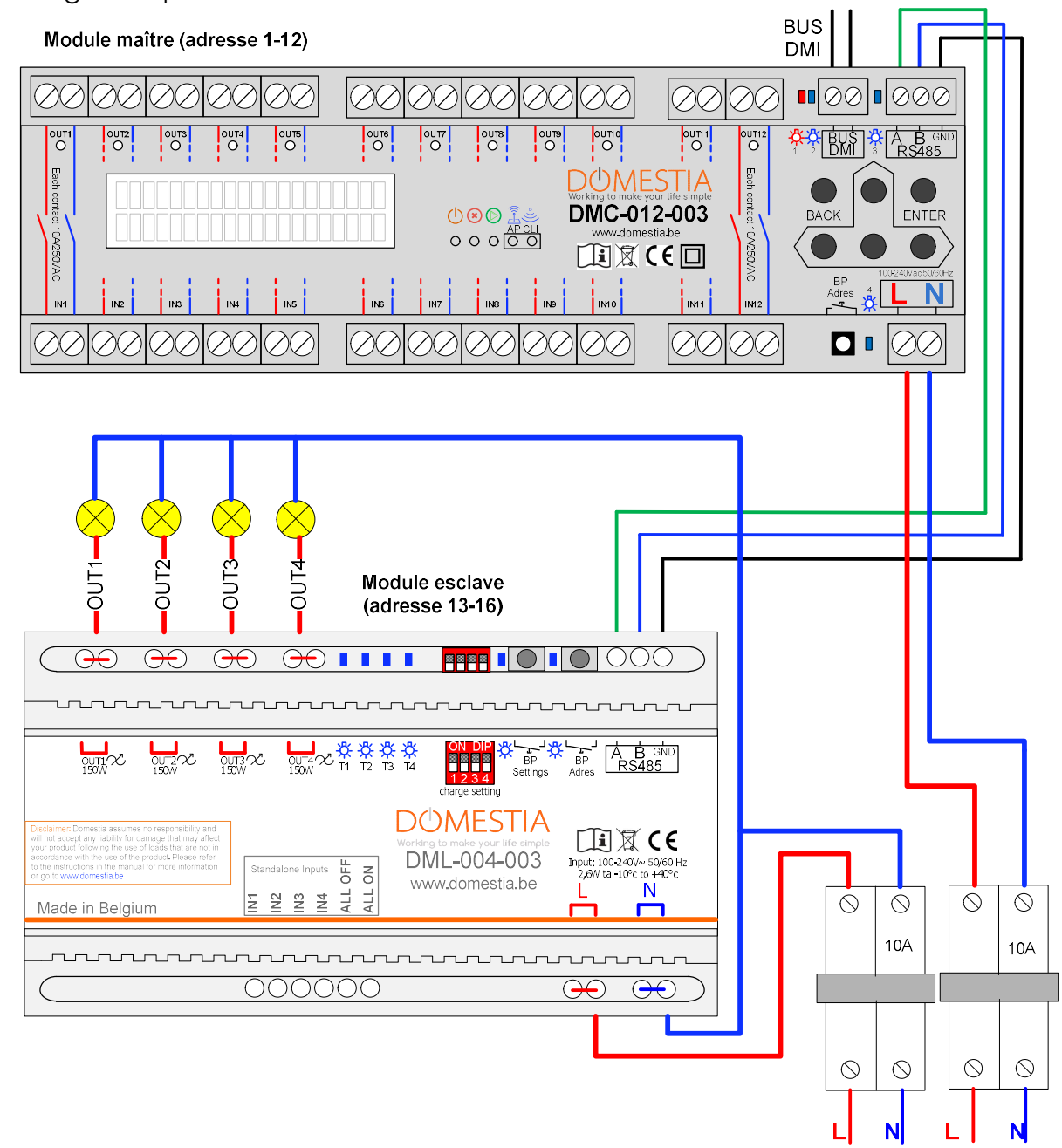
1. The 'Phase' outputs to lamp circuits (2 phase terminals per output)
2. Working indicators (1 by output)
3. Dip-switch for setting the dimming mode (depends on the types of loads connected)
4. Minimum value setting button: « BP Settings »
5. Addressing button « BP Adres »
6. A RS485 bus for connection (to be connected to the master module)
7. Input « Standalone ». Only useful for the working in « stand alone » mode (without master module)
8. Power supply terminal "Phase". (2 terminals)
9. Power supply terminal « "Neutral". » (2 terminals)

2. CONNECTION

DML-004-003 extension module 4 dimmable outputs can function in “stand-alone” mode or in slave mode behind:

- **A relay output module DMC/DKS-012-00x**
- **A relay output module DMC/DKS-008-001**
- **A master control module DME-LAN**

Wiring example:



Note: The output terminals are doubled. The two terminals correspond to the output signal of the phase. The neutral of the lamps is connected directly to the circuit breaker (see diagram).

3. CONFIGURATION

3.1 Addressing from the application "Domestia Home Manager" (via the master module)

When the module is connected to the master module of the type **DMC-008-001** (from the firmware V1.28), **DMC-012-003** or **DME-LAN-002** (from the firmware V3.0) module **DML-004-003** can be addressed from our programmation app. « Domestia Home Manager ».

1) Automatical addressing: Click on « Add automatically », it scans the RS485 bus and recognizes the connected modules. Then it is still possible to modify the module's address thanks to the arrows « up » and « down ».
2) Half-automatical addressing: click on "Add half-automatically» then press the addressing button of the module(s) DML-004-003 to add. Click again on «Add half-automatically» to end the process of adding modules.

3.2 Manual addressing

To make the DML-004-003 compatible with the older master modules (DMC012-002, DME-LAN-001) the module can be addressed via the addressing button.

1) Press during 4 seconds on the addressing button (till the blue LED goes off)
2) Then press as many times as the wished address requires (see **addressing table**). The LED indicator lights up at each press. (max. delay of 2 seconds between the successive pushes)
3) After a delay of 2 seconds following the last press the blue LED flashes the number of times that the button has been pushed to confirm the address.

Table d'adressage	
Adresse du module	Plage des sorties
1	13-16
2	17-20
3	21-24
4	25-28
5	29-32
6	33-36
7	37-40
8	41-44
9	45-48
10	49-52
11	53-56
12	57-60
13	61-64
14	65-68
15	69-72
16	73-76
17	77-80
18	81-84
19	85-88
20	89-92
21	93-96
22	97-100
23	101-104
24	105-108
25	109-112
26	113-116
27	117-120
28	121-124
29	125-128
30	129-132
31	133-136
32	137-140
33	141-144
34	145-148
35	149-152
36	153-156
37	157-160
38	161-164
39	165-168
40	169-172
41	173-176
42	177-180
43	181-184
44	185-188
45	189-192

3.3 Addressing's reset to factory settings

To clear the module's address press the addressing button during a time between 10 and 14 seconds. When the button is released the LED flashes 10 times after a delay of 3 seconds to confirm the action.

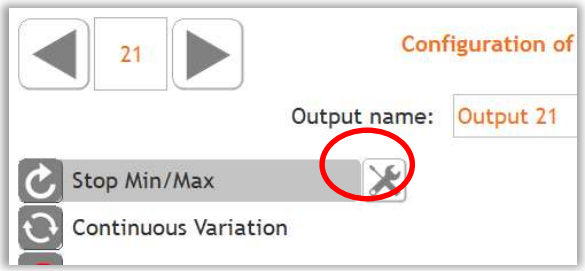
Note: during the press on that button the LED lights up during 4 seconds then goes off and lights up every two seconds as long as the button is pressed.

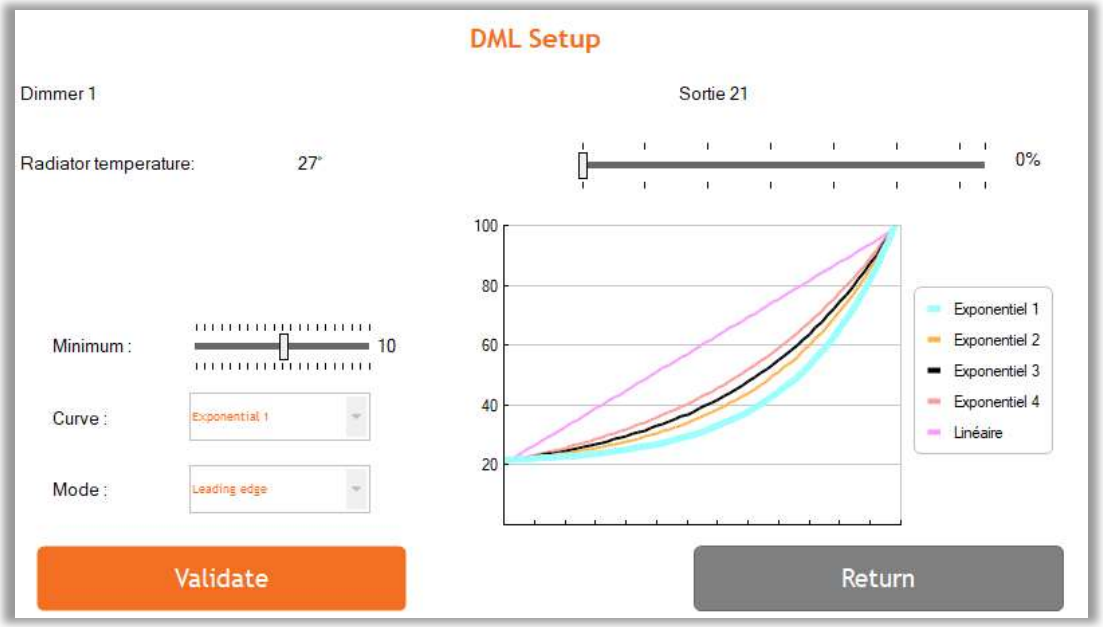
3.4 Configuration of the type of lighting element(s) and the minimum level of intensity

3.4.1 Configuration from the application "Domestia Home Manager"

When this module is connected to a master module of the type **DMC-008-001** (from the firmware V1.28), **DMC-012-003** or **DME-LAN-002** (from the firmware V3.0) module **DML-004-003** can be configured from our programmation app. « Domestia Home Manager ».

From the output-configuration window click on the  icon





1- Select the dimming « Mode »
   a. Leading Edge (Triac Mode) OBLIGATORY for all inductive loads (ex: electromagnetic transformer)

b. Trailing Edge (Reverse mode) PROHIBITED for all inductive loads (ex: electromagnetic transformer)

The « Mode » which will give the best result depends on the type of LIGHTBULBs used.

2- With the "Minimum" potentiometer you can choose the lighting value when the gradation level is at minimum. The minimum setting depends on the lamp models used, their number and the dimming Mode (Leading edge or Trialing edge). The dimmer's ouptut is lit at the minimum level to visualize the actual setting.

⚠ Do not select a minimum intensity that's too close to the minimum tolerated by the lamps => The voltage of the electrical network may change over time and the lamps may not light up or they may flicker at a low ignition level.

3- The "Curve" changes the way the current changes as a function of the dimming percentage. Generally the curve "Exponential 1" is the best choice.

4- Indicates the temperature of the output heatsink.

3.4.2 Configuration from the module's setting button (BP Settings)

DML-004-003 module is designed to work with different variable types of loads. The configuration must be adapted in function of the type of load.
DOMESTIA DOES NOT GUARANTY THAT ALL "LED" MODELS WILL FUCTION CORRECTLY: For more informations, contact your LED lamp dealer.

A) **Setting of the dimming mode** (*Trailing* or *Leading Edge*)

Leading Edge = « Triac » Mode **OBLIGATORY for all inductive loads**
Trailing Edge = « Reverse mode ». Most current lamps work best in this mode.

The DIP SWITCH allows you to adapt the function mode of each output individually. The "dip switch" will be placed either in its original position (OFF), or in position (ON).

In case of inductive load the DIP SWITCH must obligatory be placed in its original position, OFF (downwards) => *Leading Edge* Mode

For the other types of loads a test run is the best way to determine the correct setting. Some lamps will work as well in one mode as in the other.

The « Trailing Edge » mode (Dip Switch in position ON => upward) generally generates less heating.
Note: The setting must be made when the module is powered.

B) **Setting of the minimum intensity level**

1- Make a long Press on the « BP Settings » till the corresponding blue LED goes off (4 seconds).

2- Select the channel to be set by short presses on the « BP Settings ». The flashing LED moves with each press.

3- Make a long press the « BP Settings » to activate the selected channel in the setting mode. The LED lights up permanently and the channel lights up at the minimum level.

4- Set the minimum level by briefly pressing the « BP Settings » => The set level is directly adjusted to the selected output. 20 settings levels are possible.

5- To return to the channel selection for setting (step 2) make a long press on the « BP Settings ».

6- To leave the setting mode press the « BP Adress ».

3.5 Programming

3.5.1 Programming from the software « Domestia Home Manager »

a) From the output configuration click on « Programming the pushbuttons ». The dimmer's output lights up.
b) Press during minimum 2 seconds the pushbutton(s) that must command this output to associate them.
c) Click again on « Programming the pushbuttons » to leave the output's programmation.

3.5.2 Programming from an old module DMC-012-002

When module DML-004-003 is connected as a slave of an old module **DMC-012-002** it has to be programmed in the impulse mode, that means that LEDS « C » and « E » are lit (see « Diagram B » or user's manual for the DMC-012-002). Then select the output to program with the LEFT and RIGHT keys from module DMC-012-002. Activate the selected output in the programmation mode with the CENTER key. Press during minimum 2 seconds the pushbutton(s) that must command this output to associate them. Press on the CENTER key again to leave this output's programmation.

4. OPERATION

4.1 Working in slave mode

As long as a pushbutton (PB) is pressed, the associated output will be dimmed. A short press on the PB when the ouput is « switched on », will light this one off. A short press on the PB when the ouput is « switched off », will « light up» the ouput at the last luminosity level at which this output has been set.

4.2 Working in stand-alone mode

- A short press on the PB when the output is « switched on », will light this one off. A short press on the PB when the output is « switched off », will « light up» the output at the last luminosity level at which this output has been set. A continuous press on the PB will dim the output.
- With an output ALL OFF all the outputs will be « switched off »,. The output ALL ON will « switch on » all the outputs at the last luminosity level that has been set.
- Be careful: the PB (NO 230 Vac) have to be connected between the phase (terminals 22-23) and the inputs (terminals 8-9-10-11-12-13)

Reminder: in the stand-alone mode, you don't need to use identification modules. (DMI-006-001)

5. ERROR CODES

Functioning normally:
The LED associated to the output channel is lit continually when activated, and off when it is inactive. In case of malfunction, the table below gives a series of error codes.

STATUS	Problem	Possible Causes
The LEDs 1 to 4 lights up in sequence.	Impossible to control the lights.	Verify the connections to the bus RS485 (connection between the DML-004-003 and the master module)
LEDs 1, 2, 3 or 4 blink (simultaneously) every second.	Overheating of the channels: the thermal protection was activated.	- The connected element is too powerful. - The surrounding temperature is too high. - The selected dimming mode is not appropriate.
LEDs 1, 2, 3 or 4 blink rapidly (2 times/ second).	Short-circuit or overload.	- The output is in short-circuit. - The connected element is much too powerful. - The connected element is not configured correctly (See the configuration for the « Dimming mode »
THE LEDs function normally.	The lights will not turn on.	- Verify the connections of the lights. - The outputs are not programmed in mode relay (C + E) (in the case of a master module DMC-012-002).

6. TECHNICAL CHARACTERISTICS

Functional characteristics

- LED dimmable 230V : 3W à 150W
- Incandescent and Halogen 230V : 5 W à 250 W
- Halogen Very Low Voltage lamps via electromagnetic transformer : 20VA à 250 VA
  The transformer should not be used at less than 75% of its capacity.
- Halogen Very Low Voltage lamps via electromagnetic transformer : 25VA à 250 VA
  We have to take into account the performance of the transformers to calculate the maximum number of lights.

Electrical Characteristics

- Power supply : 230 VAC / 50Hz
- Consumption free of polarity: 2,60 W
- Non-replaceable internal fuse

Temperature range

- Stocking : -30°C à + 65°C
- Fonctioning : -10°C à +45°C

CE marking: This product complies with all applicable directives. The EU Declaration of Conformity is available on www.domestia.be

7. WARRANTIES

The basic duration of your product's warranty is 2 years from the receipt of your order. Whatever the problem you have with your product, keep carefully your invoice bearing the serial number(s), because it is the only document acting as a guarantee.
Excluded from this warranty are the following cases:

- Damage caused by inappropriate use, improper use, poor maintenance or failure to respect the instructions given by the manufacturer in this user manual.
- Repair attempts made by the customer or a third party which are not permitted
- Damage caused by accident, force majeure or other causes for which Domestia cannot be held responsible
- Fault not affecting the proper functioning or proper use of the equipment.

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