

DIN DIMMER MODULE

DESCRIPTION

The DM1 of the SECANT DIN module family allows to control and dim a light channel. It can be driven locally either by a high voltage momentaneous wall switch or a low voltage momentaneous wall switch or by a delayed-type of input.

It can be controlled remotely using the single-wire MNET network so as to connect it to more powerful controller such as the DPE module.

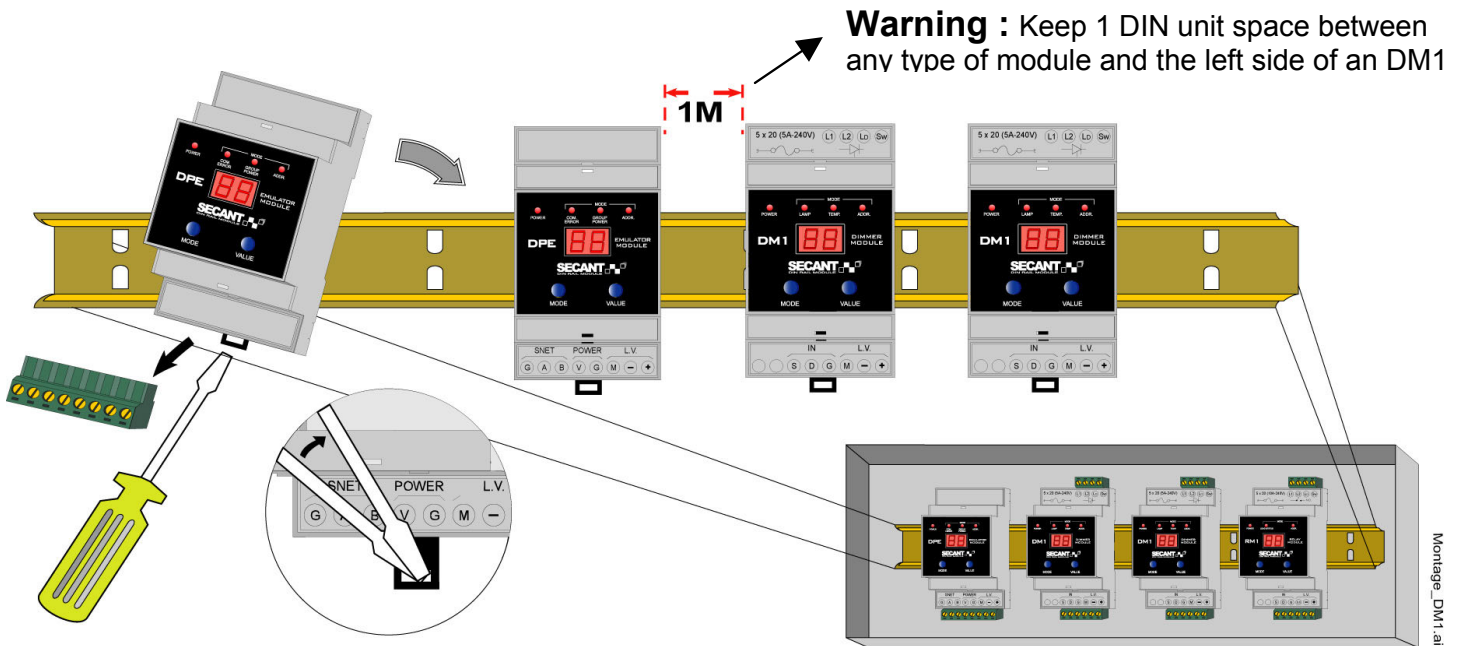
There are two version available for the DM1 module, the **DM1-120** for a 120 Vac power input and the **DM1-230** for a 230 Vac power input.

TECHNICAL SPECIFICATIONS

		DM1-120	DM1-230
Power input	High voltage: Voltage	120 Vrms, 60Hz	230 Vrms, 50Hz
	Number of phases	1	1
	Current	5 A : AC-5.1 : 1,5xle-20s ; 99-50	
	Low voltage: Voltage	Nominal 12 Vdc, Maximum 14 Vdc	
	Current	70 mA max	
Output	Power	500 W max	1000 W max
Inputs	Intensity : High voltage	1 mArms max.	2 mArms max.
	Intensity : Low voltage	0-12 Vdc, 0,2 mA	
	Detector : Low voltage	0-12Vdc, 2,5 mA	
	Only use switches approved according to the electrical code in place		
Type of loads	Incandescent and magnetic transformer		
Number of pole	1		
Type of switching	TRIAC		
Isolation voltage	300V		
Operating overvoltage	2,5 KV		
Operating temperatures	0 °C to 60 °C		
Storage temperatures	Minus 10 °C to 60 °C		
Protection	Fuse F1 5A 230Vac IEC127	SHEET II Overheat at 99 °C	
Communication	Single-wire MNET : 12 Vdc max		
Size	3M Format, height 73 mm, width 53 mm, length 90 mm		
Material	Noryl UL 94 V-0; grey color RAL 7035		
Pollution	2		

MODULE INSTALLATION

All SECANT modules are designed to be installed on a standard EN50022 DIN rail according to the DIN 43880 norm



Note : Mounting should be performed inside the electric cabinet

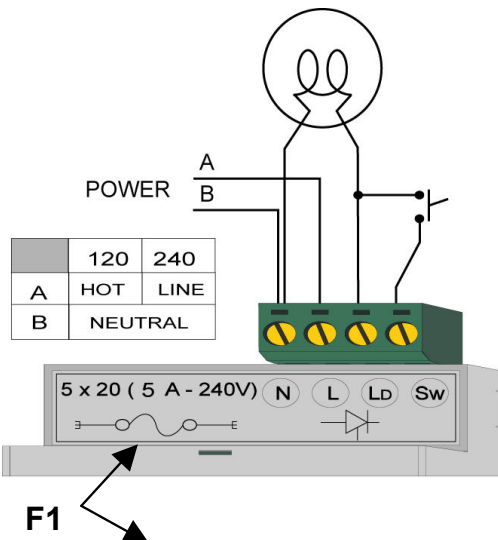
Vertical mounting only

Warning : Make sure that the enclosure is large enough, each DM1 requires 1500cm³. A fan may be necessary

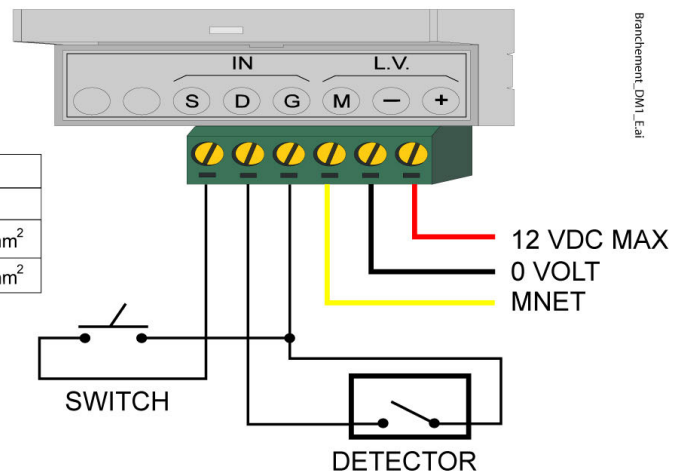
CONNECTION SCHEMATICS

High voltage section

Low voltage section



Wire size			
	1 Wire	2 Wires	
Solid	4,15	1,02	mm ²
Stranded	3,56	0,90	mm ²



In case of a short:

Check load, power input and contact before replacing the fuse and turn power ON again.

Electromagnetic compatibility :

Take all necessary measures so as connected loads do not generate electromagnetic emissions.

WARNING : Turn OFF breaker before getting to connection contacts.

DISPLAY AND INDICATORS

The DM1 module has three indicators on top of the front face. From left to right, they are:

POWER	Low voltage input
LAMP	Tells that the value displayed on the two-digit display is the current intensity of this particular channel (from 0% to 99%, 99% = 100%)
TEMP.	Tells that the value displayed on the two-digit display is the current internal temperature inside the module
ADDR.	Tells that the value displayed by the two-digit display is the address of this module on the MNET network.

The DM1 module has two push-buttons, the **Mode** button and the **Value** button. These two buttons allows to modify the status of a few options.

Each time the **Mode** button is pressed, the module shows different data through its double-digit display. When necessary, it is possible to change the information displayed by pressing the **Value** mode.

To dim

Press the **Mode** button until the **Lamp** button is on. Then, press **Value** until the value shown on the display is correct.

To display the internal temperature of the DM1 module

Press the **Mode** button until the **Temp.** indicator is on. The temperature displayed is in °C.

To change the address of the module

Press the **Mode** button until the **Addr.** Light is on. Then, press **Value** until the display shows the correct address (refer to the networking section of this notice for more information on how to use the DM1 on a network).

Error codes

When the modules detects a wrong operating status, it displays an error code. This code will flash until this wrong operating status disappears. Please note that the error code is displayed only when the display is idle i.e. 30 seconds after being used with either the **Mode** or **Value** buttons for the last time.

Errors currently detected are as follows :

Code	Types
01	No load
02	Overheat. The internal temperature of the module is higher than 99°C. The module will automatically stop functioning until the temperature gets back to a normal value.
03	Transmission error. The module does not receive any acknowledgement from a group controller (such as a DPE). If the DM1 module is not connected to any group controller, its address should be set at 0.
04	Loss of high voltage power input

NETWORKING

All SECANT DIN modules can be connected together through the single-wire network MNET. The networking use of SECANT DIN modules gives added functionality.

It is also possible to connect DM1 DIN module to a Cardio system through a DPE controller.

CONFIGURATION

All out-of-factory DM1 modules are programmed as follows:

General		Reaction	
Dim speed on opening :	Normal (1,5 s)	Active :	YES
Dim speed on closing :	Normal (1,5 s)	Dim value of reaction :	100%
Maximal dim :	100%	Dim value after reaction :	0%
Automatic shutoff delay :	No active	Speed of dim when opening :	fast (0,5 s)
Preset dim active :	Yes	Speed of dim when closing :	slow (2,5 s)
Restablished status after : power failure	Yes	Length of reaction :	60 seconds
Type of contact :			Normally open
Network			
Address :	0 (no active)		
Protected addressing :	No		

INFORMATION

To order

120 Vac dimmer:	DM1-120
230 Vac dimmer :	DM1-230

Markings

CE	EN60947-4-3 (2000)
	EN60947-1 (1999)

Documentation/References

For more information on this product and on any other product of the SECANT DIN module family, please refer to the following Internet site: www.secant.ca.

WARRANTY

SECANT Home Automation inc. warrants goods of its manufacture as being free of defective materials and faulty workmanship for a period of **1 YEAR**. If warranted goods are returned to SECANT during the period of coverage, SECANT will repair or replace without charge those items it finds defective. The guarantee does not apply to the defective products following an incorrect or abusive use.

!!!WARNING!!!

Outputs of this modules are driven by a TRIAC. This TRIAC cannot be protected against a short. Therefore, please take all necessary measures so as not to connect output wires anywhere except than to loads. A wrong connection will seriously damaged the TRIAC **Note that the warranty does not cover any damaged to the TRIAC**

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