

Datasheet Dimmer Mosfet FM

DIM-231-T-01

Universal transistor dimmer module for flush mounting enables smooth control of the light intensity level.



1. Parameters - DIMM

Features:	
Value	Specifies the current output value (0.0 - 1.0)
RampTime	The value of the delay time of brightening or dimming the output (in ms)
MinValue	Minimum value which Value can adopt. Attempting to set a lower value will generate an error
MaxValue	Maximum value which Value can adopt. Attempting to set a higher value will generate an error
StartLevel	Specifies the threshold of the output (0.0 - 1.0)
DimmingEdge	Returns the current type of dimming type: 0 - TrailingEdge, 1 - LeadingEdge
DistributedLogicGroup	Distributed Logic group - broadcast group for distributed logic
StatisticState	Enables measurement reporting to the statistics module: Off - turned off, Continuous - load measurement for the whole device's period operation
Load	The measured value multiplier. For StatisticState: Continuous - load measurement in the unit of time
Methods:	
SetValue	Sets output value (0.0 - 1.0)
SetRampTime	Sets the time for brightening or dimming the output (in ms)
SetMinValue	Setting the minimum value which can be adopted by an output. Attempting to set a lower value will generate an error. Range: 0.0 - 1.0
SetMaxValue	Setting the maximum value which can be adopted by an output. Attempting to set a higher value will generate an error. Range: 0.0 - 1.0
SetStartLevel	Sets the threshold of the output (0.0 - 1.0)
SetDimmingEdge	Sets the Dimming type
Switch	Changes the output value to opposite (MinValue - MaxValue). The first parameter is the time of change: 0 - switches output to continuous mode, number - switches output for a specified time by a parameter (in milliseconds). The second parameter is the ramp (time of value increments) which is optional. If this parameter is not specified, the default ramp is used. The third parameter (Mode) is optional - in LastValue mode the last non-zero value is restored instead of MaxValue
SwitchOn	Sets output value to MaxValue. The first parameter is the time of switching (how long it is to be switched for). The second parameter is the ramp (time of value increments) which is optional. The third parameter (Mode) is optional - in LastValue mode the last non-zero value is restored instead of MaxValue
SwitchOff	Sets output value to MinValue. The first parameter is the time of switching (how long it is to be switched for). The second parameter is the ramp (time of value increments) which is optional
HoldValue	Executes the function of illuminating/ dimming
Events:	
OnValueChanged	Event resulting from changing the output state
OnSwitchOn	Event occurring when the output value is changed from MinValue to a higher value
OnSwitchOff	Event occurring when MinValue is set at the output
OnValueRise	Event occurring when the set value is higher than the current value
OnValueLower	Event occurring when the set value is lower than the current value
OnOutOfRange	Event occurring when setting a value which is higher than the maximum value or lower than the minimum value

2. Parameters - DIN

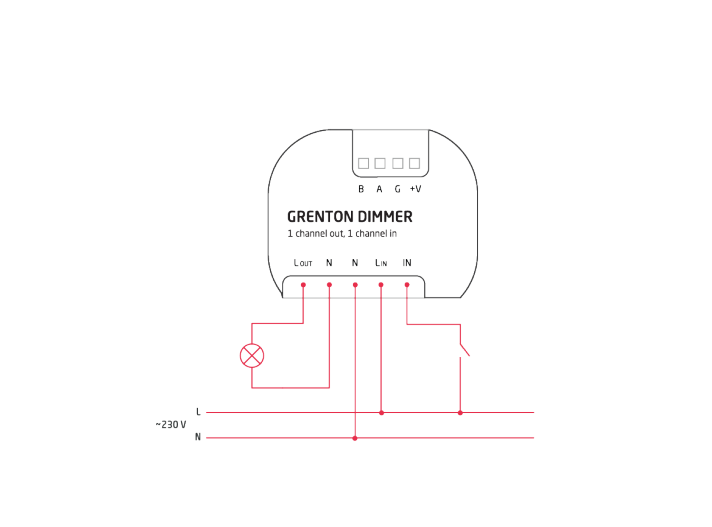
Features:	
HoldDelay	Time in milliseconds after which, when pressing and holding a button, the OnHold event occurs
HoldInterval	Cyclical interval in milliseconds after which, when pressing and holding a button, the OnHold event occurs
Value	Returns input state as 0 or 1
DistributedLogicGroup	Distributed Logic group - broadcast group for distributed logic
StatisticState	Enables measurement reporting to the statistics module: Off - turned off, Continuous - load measurement for the whole device's period operation, Pulse - load measurement counted at the moment of a high state appearing on the input
Load	The measured value multiplier. For StatisticState: Continuous - load measurement value in the unit of time, Pulse - load measurement value for the single impulse (e.g. 1kW)
Methods:	
SetHoldDelay	Sets HoldDelay value
SetHoldInterval	Sets HoldInterval value
Events:	
OnValueChanged	Occurs when a change in the input state takes place (regardless of the value)
OnSwitchOn	Occurs when the high state is set at input
OnSwitchOff	Occurs when the low state is set at input
OnShortPress	Occurs after pressing the button for 500ms - 2000ms
OnLongPress	Occurs after pressing the button for at least 2000ms
OnHold	Occurs for the first time after HoldDelay time and then cyclically every HoldInterval value
OnClick	Occurs after pressing the button for less than 500ms

3. Technical data

Device power supply	24V _{dc}
Maximum power consumption	0.36W
Maximum device current	15mA (for 24V _{dc})
Maximum load current	0.87A
Maximum impulse load current RMS(20ms)	1.5A
Maximum resistive load (AC1)	200W
Maximum dimmable LED load	100VA
Rated load voltage	230V _{ac}
Maximum load voltage	277V _{ac}
Switch type	2x MOSFET transistor
Max. wire cross section	2.5mm ²
Weight	27g
Fixing	flush mounted
Dimensions (H/W/D)	19/45/36mm
Operating temperature range	0 to +45°C

- For load types other than resistive (AC1), the maximum load has to be at least two times lower than for resistive load.
- It is highly recommended to verify if the dimmer device works properly with the load in the target system, every time before installation.

4. Wiring diagram



Lout	'L' output signal
N	'N' output signal
N	'N' input signal
Lin	'L' input signal
IN	input 230V _{ac}
+V	device power supply
G	GND for +V power supply
A	'A' signal input
B	'B' signal input

5. Warnings and Cautionary Statements

ATTENTION !

- Before proceeding with the assembly, read the installation schematics and full instructions available at www.grenton.com. Failure to follow the guidelines contained in the instructions and other requirements of due care valid as a result of the nature of the equipment (device) may be dangerous to life / health, damage the device or installation to which it is connected, damage

other property or violate other applicable regulations. The manufacturer of the device, Grenton Sp. z o. o. does not bear any responsibility for the damage (property and non-property related) resulting from the assembly and / or use of the equipment not in accordance with the instructions and / or due diligence in handling the equipment (device).

● Device power supply, permissible load or other characteristic parameters have to be in accordance with the device specification, described in particular in the "Technical data" section.

● The product is not intended for children and animals.

● If you have technical questions or comments about the device operation, contact Grenton Technical Support.

● Answers to frequently asked questions can be found at: www.support.grenton.com.

DANGER !

- Danger to life caused by electric current!
- The components of the installation (individual devices) are designed to work in a home electrical installation or directly in its vicinity. Incorrect connection or use may cause a fire or electric shock.

● All work related to the installation of the device, in particular works involving interference in the electrical installation, may be performed only by a person with appropriate qualifications or licences.

● When installing the device, make sure that the power supply voltage is disconnected from the circuit in which the device is connected or near which the assembly takes place.

6. CE Marking

The manufacturer declares that the device is in full compliance with the requirements of EU legislation that includes the directives of a new approach appropriate for this equipment. In particular, Grenton Sp. z o. o. declares that the device fulfills the requirements on safety, specified by law, and that it conforms to the national regulations that implement the appropriate directives: The Directive on the electromagnetic compatibility (EMC - 2014/30/UE) and the Directive on the limitation of the use of specific substances in electrical and electronic equipment (RoHS II - 2011/65/UE).



7. Warranty

Warranty available at www.grenton.com/warranty.

8. Manufacturer Contact Details

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