DIN RAIL TRAILING EDGE DIMMER - DMR.732 & DMR.733

User Manual.





DMR.732 & DMR.733 it is a single channel trailing edge dimmer. The dimmer's output is capable of supplying up to 350VA of load max. DMR.732 & DMR.733 can be used for different type of loads such LED, Incandescent and Halogen 230VAC dimmable lamps. DMR.732 offers high flexibility in terms of communication and can be controlled through 1/10V, and Push button while DMR.733 supports Bluetooth protocol and Push button. Furthermore, DMR.732 supports "aller configuration between 1/10V and Push button. Both dimmers offer overtemperature protection and have been designed for interior use only. Finally, DMR.732 & DMR.733 can be power supplied directly with 230VAC and with their polymer case they can be easily fastened to DIN (EN 60715) RAIL.

General notes and precautions.

- Please make sure that during the installation, DMR.732 & DMR.733 should not be supplied with 230VAC.
- Designed only for indoor use.
- Do not try to fix any damage or malfunction, by opening the DMR.732 or DMR.733. There is a risk for an electrical shock hazard and the materials and parts used in the DMR.732 & DMR.733 cannot be replaced. This must be done by an experienced and specialized technician of your supplier.
- When DMR.733 is installed inside metallic distribution boards, its range might be reduced.
- Disconnect the power supply for any service.

Caution: Make sure that the total current of the loads that are going to be connected to the dimmer is not higher than the output current capacity of the dimmer. The current of the load can be higher if their power factor is smaller than one. Please refer to the technical specifications of the loads to learn more about the current they consume.

Compatible loads.

Dimmer DMR.732 & DMR.733 are operating with Trailing edge mode and therefore the loads should also operate with the same way of regulation. If your loads don't indicate the dimming mode, contact your supplier to inform you on this. The types of loads you can connect are the following:



Dimmable Lamps and luminaires with LED and operating voltage at 230VAC.



Dimmable Fluorescent lamps CFL (Compact Fluorescent Lamps), with operating voltage at 230VAC.¹



Dimmable Electronic transformers for low voltage lamps.



Incandescent and Halogen lamps at 230VAC.

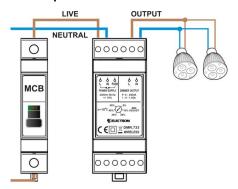
ELECTRON®

Connecting power sypply and load.

DMR.732 & DMR.733 must be switched off at the mains before connecting / replacing any type of lamp or load in general.

It is important that the total amount of the load does not exceed the dimmer's rated output power.

Only 230VAC dimmable loads should be connected to the dimmer's output.



The dimmers have to be always supplied through a Miniature Circuit Breaker (MCB) as the figure indicates.

Use always MCBs with the appropriate current capacity according to the load.

Avoid to use MCBs with current capacity over 10A.

Connecting & controlling the output with 1/10V (DMR.732).

The 1/10V input can be adjusted by connecting at the screw

terminals (marked with a variable resistor [either a 100K log potentiometer or a sink current 1/10V controller. Note that the sink current 1/10V controller has polarity thus, the positive end from this device must be connected to the dimmer's positive 1/10V input (marked with "+") and the negative end to the dimmer's negative 1/10V input (marked with "-"). By turning the controller "clock wise" the dimmer's output level can be adjusted from 0% to 100%.

Caution: Connecting the controller in the opposite way may damage the controller or the dimmer or even both.

^{1.}For CFL lamps start up, you may need to adjust the output to full for 2-3 seconds.

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Connecting & controlling the output with Push button.

For connecting the Push button a single switch should be connected from one side to the "LIVE" and from the other side to the dimmer's screw terminal indicated with this symbol . It is possible to connect more than one Push button controllers with the same method.

Once the connection is been made the button operates as follows:

- Press the button continuously. The output level begins to rise. Once the output reaches the desired level, release the button.
- Press the button continuously again. The output level begins to decrease. Once the output reaches the desired level, release the button.

Notice that each time you press the button, the operation of dimmer changes, one time the output level increases and the other time the output level decreases and so on.

- Press the button instantly. If the output is at a certain level (not 0%) then the output level becomes zero.
- Press the button instantly. If the output level is zero then it will come back to the level it was when the button was pressed to become zero.

Notice that each time you press instantly the button to zero the output, the dimmer saves the output level that had in the time that was pressed. In this way, when you instantly press the button, the output level will get back to the stored level.

 Press the button instantly two times. The dimmer goes at 100% level.

Furthermore, if in an installation multiple DMR.732 & DMR.733 dimmers are been controlled from the same push button and for some reason one or more dimmers lose their synchronization with the remaining dimmers, the double instant push can be used for synchronizing all dimmers at the same output level and with the same direction (down).

Dimmer's operating mode (DMR.732).

DMR.732 is operating in "LAST" mode (LAST takes precedence or aller retour). The dimmer is detecting the input that changed last and modifies the control level of the output accordingly.

For example, we suppose that the Push button input has 70% level and is currently controlling the output. If the level of 1/10V input changes by more than 3%, regardless if the level is higher or lower, then in the dimmer's output you will see the level of the 1/10V input, because in this input there was the last change of the control level.

Dimmer's operating mode (DMR.733).

DMR.733 Push button input and Casambi commands operate in "LAST" mode (LAST takes precedence).

You must be aware of the following:

- Push button's control level is not visible in Casambi system.
- The setting "Start up state for power on" for Casambi system is not applicable because of the "Last" state memorizing feature of DMR.733.

- The "Minimum dim level" setting which is set from Casambi system is overwritten from the "MIN ADJUST" feature of DMR.733.
- The minimum fade in / out time is 640msec. This time cannot be decreased by Casambi system.

Bluetooth pairing (DMR.733).

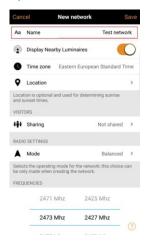
DMR.733 can be paired and controlled from your Bluetooth device through Casambi app, which is available in "Play Store" and "Apple Store" for free. Once you have downloaded the Casambi app, you need to enable the Bluetooth connections at your device. Then open the application and go to My networks as it is indicated in the next figure.



Then select the option "Create a new network".



Select a name for your network and any other preference that is required and press "Save".



Now you have successfully created your own network. Select "Show nearby devices" to add DMR.733 to your network. DMR.733 should be power supplied, in order for it to be visible at your Bluetooth device.

Note that you can add up to 127 DMR.733 devices into a single network or less if you are already using some other Casambi devices in the same network.

For more information about the network settings and the Casambi app in general contact with ELECTRON S.A. or visit Casambi's web site.



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Select "DMR733" from the available devices for completing the Bluetooth pairing between your device and DMR.733.



The device is ready for use. You can now control DMR.733 from your Bluetooth device!



With a single "tap" on the device you can switch it "on" or "off". You can also "tap & hold" the device and then by sliding your finger to left and to the right you can adjust the output of DMR.733 from 0% to 100% accordingly.

Casambi app offers a lot of options such as creating Scenes, Selecting new name for the device, Dimming range etc. The Scene editing can be adjusted from this page under the section "Scenes", while the other settings can be accessed by double "tapping" on the device. These custom setting can be seen in the following picture.



Set the minimum output level.

DMR.732 & DMR.733 has one regulator (trimmer) with which you can adjust the minimum output level, avoiding any unstable behavior of the lamps at low dimming areas. The regulator is located at the center of the device and it is marked as "MIN ADJUST".

Furthermore, when you connect to the output different types of lamps and you notice that by rising the control signal of the dimmer from 0%, each type of lamp starts to light up at different percentage of the control signal. Then you can set the minimum output percentage with the "MIN ADJUST", so that in 0% of the control signal all types of lamps will have a minimum brightness.

To set the minimum level of the output:

- First, all controls (1/10V or Bluetooth) must go to 0%.
- Then, adjust the regulator "MIN ADJUST" by observing the lamps and stop the setting at the desired level.

Also, if you notice brightness instability of the lamps at the level where they begin to light up, then adjust the "MIN ADJUST" at a level slightly higher than the one that instability occurred.

It is recommended at each dimmer to connect the same type of lamps to get better adjustment of the brightness of the space.

Be aware that the minimum output level cannot be more than 50%.

"MIN ADJUST" can also be used for testing the load connections (mainly for DMR.733) before we pair the dimmer to a Bluetooth device or connecting it with 1/10V and Push button controller.

Finally, if "MIN ADJUST" setting is not needed, it can be disabled by setting the regulator at 0%.



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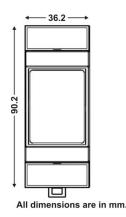
Technical specifications.

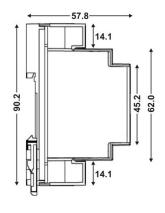
Output channel.	1.
Maximum output power.	350 VA.
Minimum output power.	0 VA.
Minimum connected load.	5W.
Dimming mode.	Trailing edge.
Type of loads.	Dimmable 230V LED lamps. Dimmable compact fluorescent lamps. (CFL). 230V halogen lamps. Electronic transformers for low voltage halogen lamps. Incandescent lamps.
Analog inputs. (DMR.732) Analog inputs. (DMR.733)	1/10V & Push button. Push button.
Wireless input. (DMR.733)	Bluetooth.
Wireless range. (DMR.733)	Up to 30m. ¹
Dimming curve correction.	Yes. Adjusting the built-in min trimmer, installer can achieve dimming without dead fields.
Dimming resolution.	20000 steps.
Input / output connection.	Screw terminals.
Output current.	1.52A rms.
Output voltage	230VAC.
Output power	350 VA.
Dimmable.	Yes. (Phase cut)
Power consumption. (Max. load @ 100%).	352 W.
Power supply.	230VAC, 50Hz. (+/- 15%)
Class.	Class II.
Ambient temperature.	-20°C / +50°C.
Dimensions (LxWxH).	90mm x 36mm x 58mm.
Conductor size.	Power Supply & Dimmer output : 1mm²-2,5mm² (stranded). Input, output controls : 0,5mm²-1mm² (stranded).
Standards in compliance.	LVD Directive, EMC Directive.

Range is highly depended on the surrounding and obstacles, such as walls and building materials.

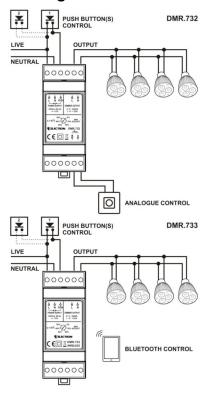
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Dimensions.



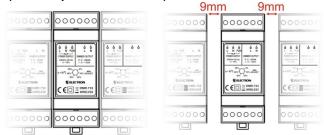


Connection diagram.



Minimum spacing at the rail between dimmers and other components.

1) Load up to 200VA 2) Load from 200VA to 275VA



3) Load from 275VA to 350VA



Caution: Leaving no gap/space between the dimmers (for cases 2 & 3) and other components in the rail, might damage the dimmer(s) permanently!





At the end of its lifetime DMR.732 & DMR.733 must be delivered in a special waste collection center. The improper disposal can cause damages for the environment and poses dangers for the human health.

