

Dimmers with illumination Scene Setting

PS-DR-08-XX



Presevi designs, develops and manufactures several controllers for air conditioners, refrigeration systems and other home appliances, room control systems, dimmers for illumination control etc. We have developed three types of dimmers and its associated button panels for catering to this segment. These dimmer that has higher capacity is meant for hotels, restaurants, many public areas, air ports etc.

1. Basic operation

Presevi has four types of illumination dimmers that have eight individual outputs channels. Any of these on these dimmers could be put to use, either in combination or individually, using the RS 485 communication ports on the dimmers and the **button panels**. Button panels, as it is named in colloquial parlance, could be configured to create the pre-defined illumination scenes of the area, using combination of these dimmers. For example the illumination scenes required for the area while power point presentation will be different from a product presentation, general talk etc. Button panels of the model PS-BP-01 let's configuring the dimmers to obtain eight pre-defined illumination levels using combination of these dimmers. Button panels are also provided with RS 485 communication ports.

2. Brief description about these dimmers

As said earlier, Presevi has four varieties of dimmers. All these dimmers are provided with eight individual electrical channels, RS 485 communication ports, indication of the active channel, ON/OFF button, real time clock etc. This could be integrated together, using common RS 485 port.

Light Dimmers

All These dimmer models have eight independent electrical channels, RS 485 communication ports for integrating to other dimmers, button panels (for selecting required illumination scenes), its own display and LED indication (for real time clock), configuration button panels etc as shown in Fig.1.

The model PS-DR-08-16 is 16A dimmer working on single phase uses the phase cutting principle. It could handle up to 16 Amps per circuit

The model PS-DR-08-05 is 5A dimmer working on single phase uses the phase cutting principle. It could handle up to a maximum of 5 Amps per circuit.



Fig. 1 front panel of the Dimmer

The model PS-AN-08-16 gives out 0 to 10 volts DC signal to the tube light/Led lamp. Lamp luminaire has built in electronic controller that could illuminate based on the dimming signal. It is possible to use this model along with DALI controller, if required.

The model of the dimmer PS-DL-08-16 is used for switching ON/OFF of the lamps in the system. Maximum current carrying capacity of this model is 16 Amps per channel

3. Dimmer Mode setting

As said earlier, these dimmers have 8 independent outputs that configured to eight pre-defined intensity level settings except the ON/OFF dimmer. It is used to for setting the ON/OFF action. Following explains the possible mode setting and brief description. Figure.1 gives a brief idea about the control panel on the dimmers.

3.1 Auto mode: In auto mode the scenes will be changed automatically as per the real time settings. The scene setting could be done using a Laptop / PC and dump to the memory of the controller through the RS485 port of the dimmer. The dimmer become independently controllable as per the scene requirement, once the data gets downloaded.

3.2 Manual mode: In manual mode, nine scenes could be changed, using remotely placed button panel, as per the pre-defined setting. This would help to use the specific outputs of the dimmer at different power level outputs.

3.3 Self-mode: In self-mode, the scenes could be selected as per the requirement and set through the dimmer front panel

4. Other features: - These dimmers are provided with an automatic emergency operation, in case of utility power failure, and to place any of its two outputs to give 100 % output power, irrespective of the present illumination level setting. It is provided with separate utility and emergency power supply terminals for the purpose. Certain models of these dimmers are provided with over heat protection by making use of forced cooling. A temperature sensor, provided on each heat sink, operates a cooling fan, if the heat sink temperature goes above the safety level. The operation becomes normal automatically, whenever the temperature comes below the safety level.

Fig.3 below gives an over view of the complete set up of system. It gives details of the dimmers, button panels, computer systems etc. connected in RS 485 network. These field proven and time-tested dimmers are designed by adopting IEC standards.

More details about individual dimmers and button panels could be given on request.



Fig. 2 Button panel that indicates scene

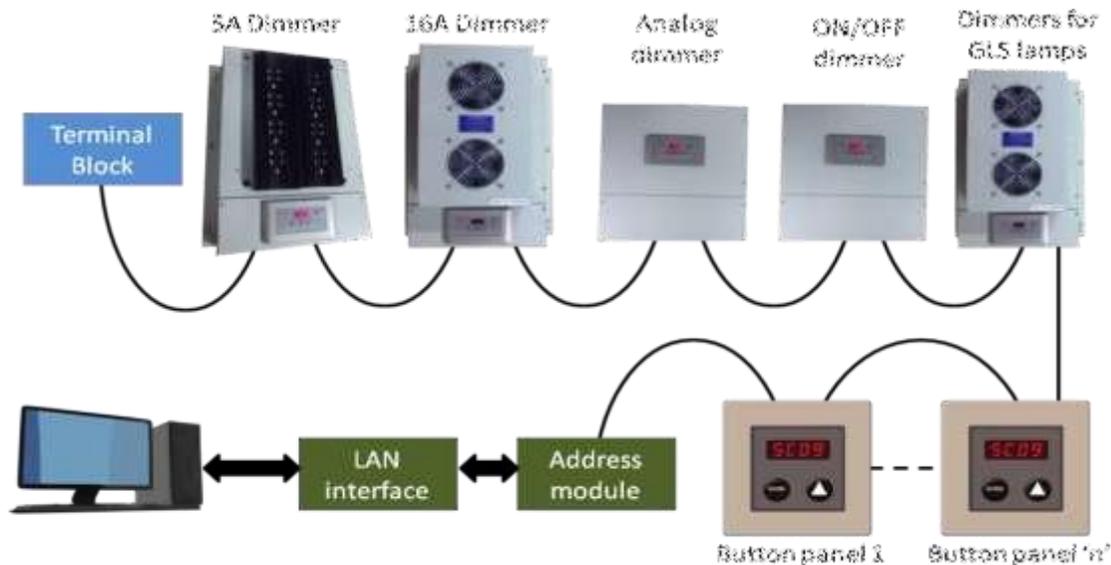


Fig. 3 Typical connection of multiple dimmers, button panels and computer upto 32

5. Mechanical dimensions (in mm)

16A dimmer (L×W×H)	: 480 × 350 × 140
5A dimmer (L×W×H)	: 480 × 350 × 108
Analog dimmer (L×W×H)	: 420 × 385 × 86
ON/OFF dimmer (L×W×H)	: 420 × 385 × 86

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