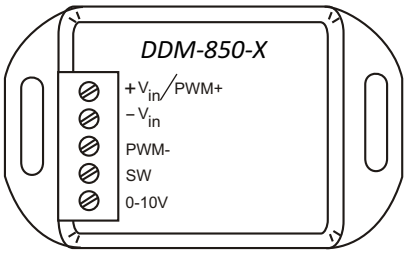
ANIGMO TOUCHLESS SWITCHES. *WHEN THE DESIGN NEEDS TO BE ABSOLUTELY PERFECT*

UNIVERSAL LOW VOLTAGE PWM DIMMERS
DDM SERIES



Description

DDM-850-X universal PWM dimmer is designed for smooth, flicker-free dimming of all constant voltage LED modules, including MR16 bulbs as well as 12V/24V Incandescent/Halogen bulbs

Very compact housing is useful for installations with limited mounting space

The DDM-850-X universal PWM dimmer has all the features of the DMS series of dimmers, except for the overload and short circuit protection

Features

- *Very compact housing*
- *Smoothly dims any LED including hard to dim MR16 bulbs*
- *Excellent dimmer for 12V/24V Incandescent/Halogen bulbs as well*
- *Can be controlled with a variety of input devices including regular wall switches*
- *High frequency PWM delivers flicker-free lighting at any level*
- *Minimum brightness adjusted with potentiometer*
- *High efficiency, low power consumption*
- *Safe and reliable screw terminals*
- *Overheating protection*

Applications

- *Nautical lighting*
- *RV / caravan lighting*
- *Low voltage lighting*
- *Dimming of MR16, MR11, G4 and other LED lamps with integrated current controller*
- *Dimming of incandescent low voltage bulbs*
- *Dimming of any 12/24V DC constant voltage LED module such as:*

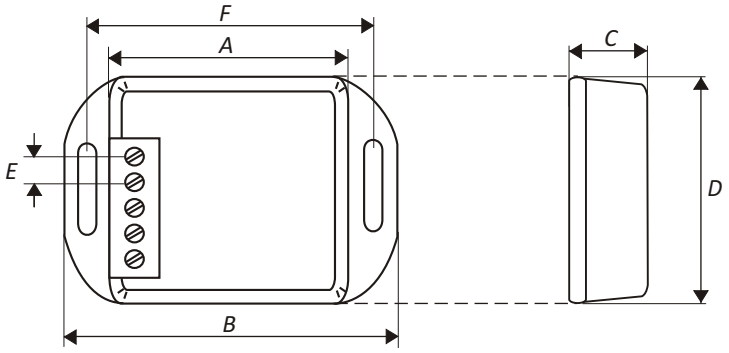
  Flexible and Rigid Strips, Rope Light, Rigid Light Bars, Under-cabinet Lights etc.

Specifications

TECHNICAL DATA	DDM-850-X
Supply input voltage range nom:	12 - 24 V DC
Supply input voltage (min - max):	12 - 30 V DC
Supply Input current:	8.5A
Output current max:	8.5A
Output load max:	100W@12VDC / 200W@24VDC
Control voltage:	1-10 V DC (0V - OFF)
Control current max:	0.1mA
Control:	0-10 V controls, Pot 100K Ohm, Dry Contact, Open collector
Dimming mode:	PWM
Operating frequency:	390 Hz
Dimming range:	0-100%
Dimming resolution:	65.000 steps
Temperature range:	0 ^{O}C to +50 ^{O}C
No-Load proof:	Yes
Short circuit protection:	No*
Overload protection:	No*
Overheating protection:	Yes, reversible
Input and output connections:	Screw terminal for wire 2mm^2 (AWG 14) max.
Housing dimensions (W x D x H):	40mm x 57mm x 15mm (1.5" x 2.25" x 0.625")

* for short circuit and overload protection use DMS series universal dimmers

Dimensions

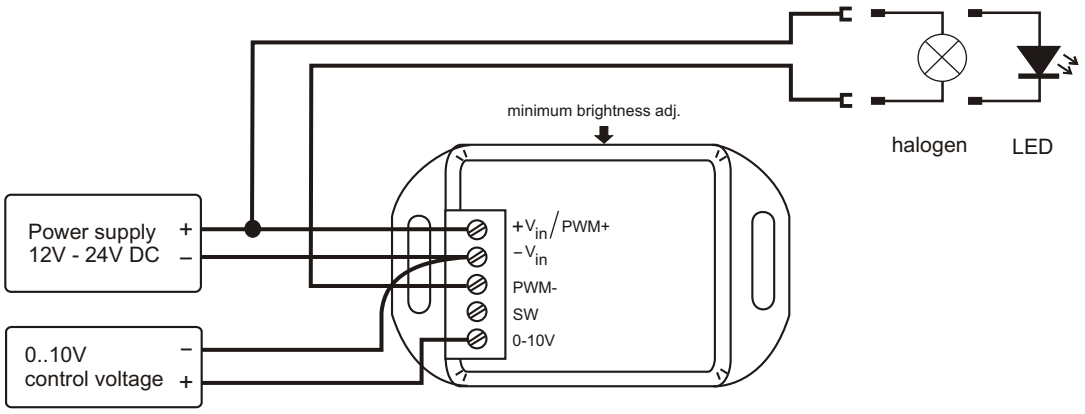


A (top housing length)	40 mm (1.5")
B (overall length)	57 mm (2.25")
C (height)	15 mm (0.625")
D (width)	40 mm (1.5")
E (connector pitch)	5 mm (0.2")
F (mounting hole pitch)	48 mm (1.9")

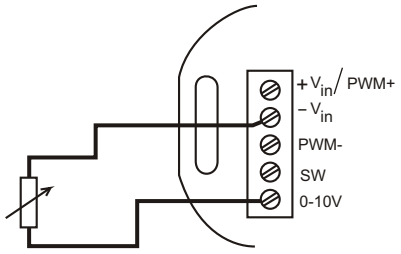
Installation

Connect the unit according to the control signal used (see connection diagrams bellow).
Unit can be mounted using two screws, double-sided tape or cable ties.
Sufficient heat dissipation of the device needs to be ensured. The ambient temperature must not exceed 50^{O}C.
Power supply and load wires should have sufficient diameter to minimize voltage drop across the wires. If voltage drop is too large, flickering of the lights and unstable operation is possible.

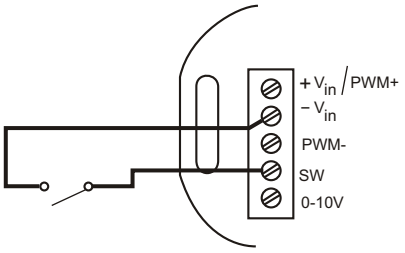
Installation diagrams



Wiring diagram for 0-10V control



potenciometer control



pushbutton control

INSTALLATION CONSIDERATIONS:

Power should be turned off during installation.
All connections should be secure, connector screws should be tightened.
After connecting the wires, turn the power on. Set the dimmer to the lowest setting. Using minimum brightness control trimmer, set the desired minimum brightness.

INPUT CONSIDERATIONS:

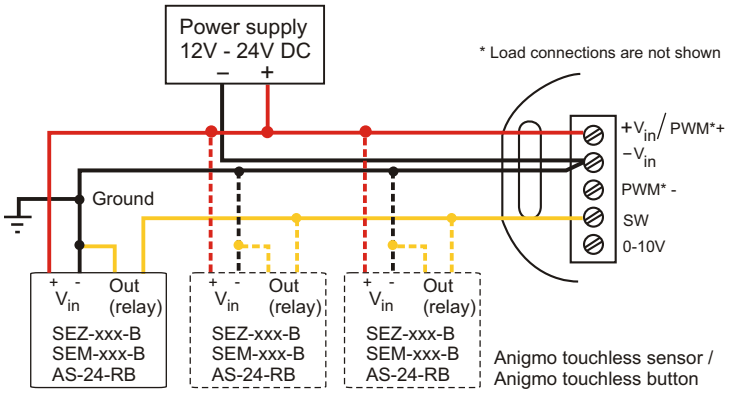
If using 0-10V control, make sure that negative wire of the 0-10V control is not shared with power negative. 0-10V negative should be connected as close as possible to the dimmer.
Wires (especially negative wires) should be connected in such way to avoid large ground loops.
If ground loops can't be eliminated, SDU signal conditioning unit should be used (see SDU signal conditioning unit for connection diagrams).
Source of 0-10V control signal should be stable.

OUTPUT CONSIDERATIONS:

Output wires should be as short as possible. If possible, connect the dimmer close to the load.
If mounting the dimmer close to the load is not possible, make sure that positive and negative load wires do not form a large loop area. Load wires should run as close as possible to reduce EMI.
For further reduction of EMI, positive and negative load wires can be twisted or shielded and grounded cable can be used.

Application notes

using ANIGMO touchless sensor/button to control DDM universal dimmer



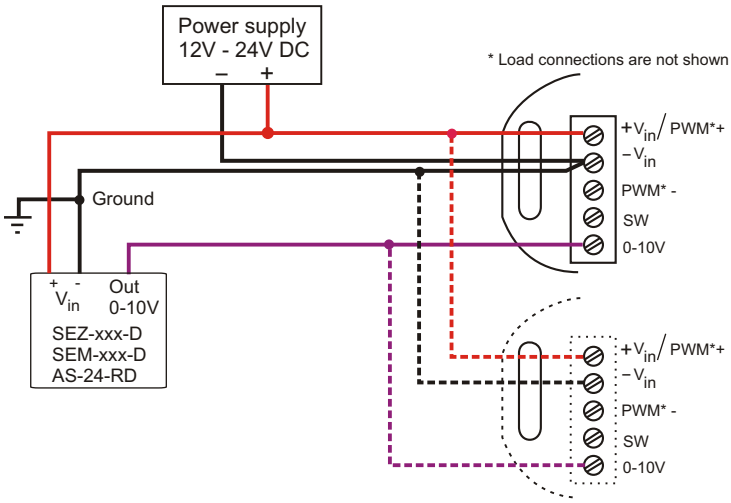
Any touchless sensor or button with relay or OC output can be used to control DDM series universal dimmer.

Multiple sensors can be connected in parrallel to control a single dimmer.

Mechanical push buttons and touchless sensors with relay or OC output can both be connected in parrallel to control a single dimmer.

DDM dimmers should not be connected in parrallel when controlled with push button or touchless sensor with relay or OC output. To connect multiple DDM dimmers in parallel, use 0-10V control signal.

using ANIGMO touchless sensor with 0-10V output to control DDM universal dimmer



Any touchless sensor or button with 0-10V output can be used to control DDM series universal dimmer.

Multiple DDM series dimmers can be controlled by 0-10V signal.

Outputs of DDM dimmers with inputs connected in parallel should not be connected in parallel.