

DIM11N Negative Dimmer Applications Information

A single momentary switch completely controls the dimmer operation: a brief press of the switch will toggle the lamp on or off, and a sustained press will cause the lamp brightness to ramp up or down for as long as the switch is held, repeating until the switch is released at the desired brightness level.

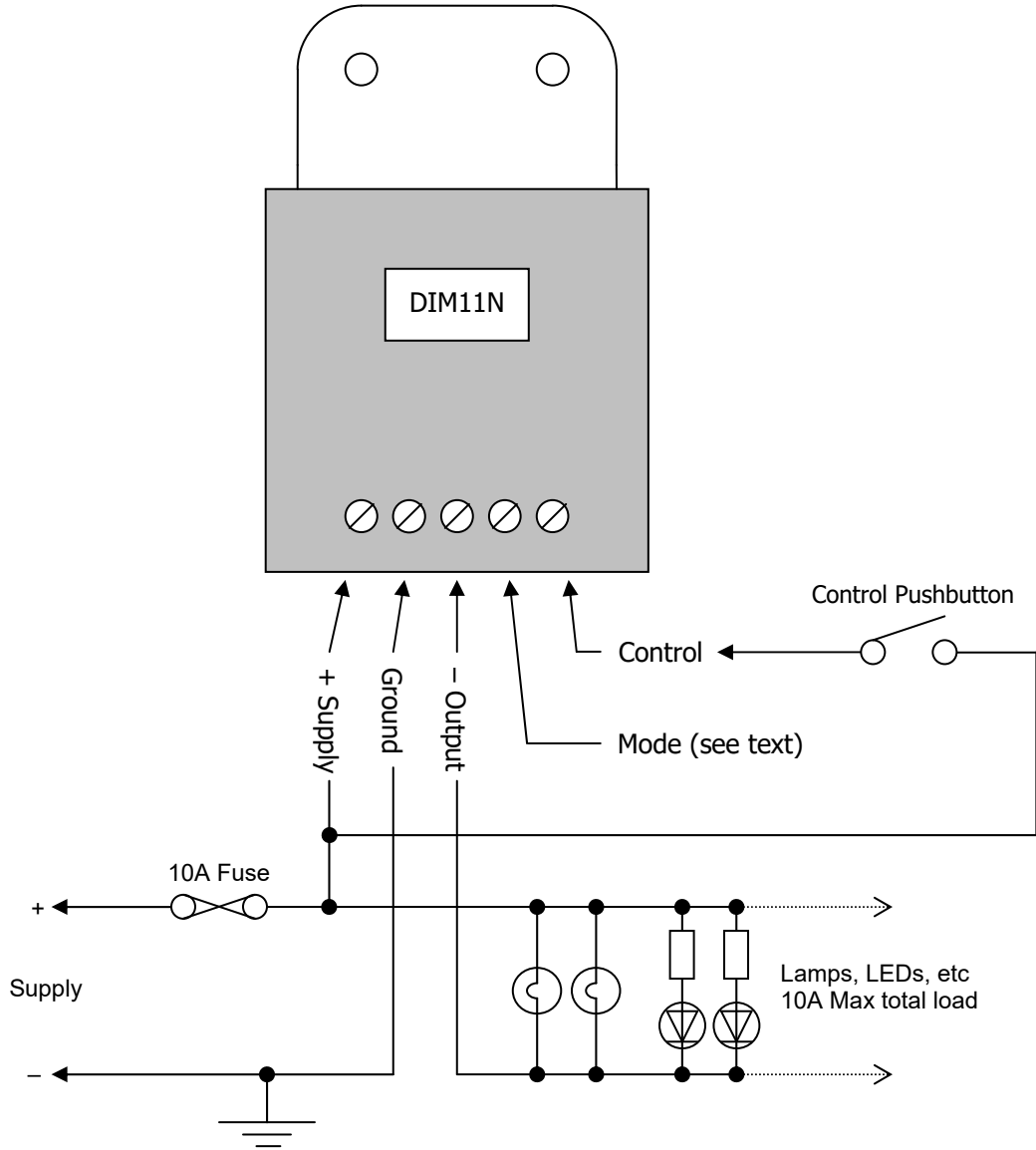
The Mode input controls the operating behaviour of the unit and should be connected during installation:

Mode Input Connected to...	
Unconnected: Always full brightness at power-on	+Supply: Recall last saved brightness at power-on

Regardless of the Mode input, the last-saved brightness level and on/off state are recalled when power to the unit is first applied. This ensures the current brightness level is not lost when power is removed, and any power glitches to the unit will not cause the lamp to suddenly change brightness or on/off state once stable power is restored.

In addition, the brightness ramp direction swaps between switch presses. In other words, if the brightness is currently increasing, the next sustained press of the control switch will cause the brightness to decrease, and vice-versa. This allows the user to adjust the brightness accurately and quickly.

The Control pushbutton can be any momentary pushbutton switch, or relay contact. The DIM11N is supplied without a switch; a selection of pushbuttons is available separately from ABELtronics.



Parameter	Specification	Comment
Nominal Supply Voltage Range	10 – 32 V DC	
Peak Supply Voltage Range	8 – 40V DC	Operation not guaranteed
Quiescent Current, max	14mA	at max operating voltage
Maximum Output Current	10A	at <30°C ambient temperature
Maximum Load Power	120W at 12V, 240W at 24V	at <30°C ambient temperature
Peak Output Current	30A	<3sec at 12V
Control Input Type	Single Switch	
Control Input Impedance	10 kΩ	
Efficiency	> 97 %	
Operating Temperature Range	-5 – 70°C (23 – 160°F)	
PWM Switching Frequency	240 Hz ±3%; 0% – 100% Duty Cycle	
Dimensions: Dimmer Module	52 × 52 × 31mm	L × W × H ±3% excl. tab
Mechanical Fixing	2 × 5.0mm dia, 20mm pitch	Holes in fixing bracket
Electrical Connection	5 × 4mm ² Rising Clamp terminal block	