

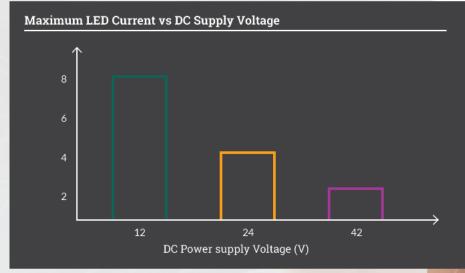
DC DIMMER Data Sheet BELL-PRESS MODEL: NDCD 96

- Compatible with all constant voltage LED drivers or power supplies
- · Compatible with most constant current drivers, but must be tested before commissioning

TECHNICAL SPECIFICATIONS

Electrical specifications

Normal Operating Voltage	9VDC - 48VDC
Minimum Operating Voltage	9VDC
Dimming Method	Digital (10 bit)
Dimming Range	0.7% - 99.9%
Max. Wire Resistance (bell-press control)	50kΩ
Minimum Load Power	No Minimum load
Maximum Load Power	96W
Maximum Load Current (See graph below)	8A @ 12VDC
	4A @ 24VDC
	2A @ 48DC



Line Regulation	Directly proportional to supply voltage	
Voltage Drift	Nil with steady input voltage	
No-load current	< 10mA	
Retain Memory	Yes	
Brown-Out Protection	Yes	
High Frequency transient protection	Yes, up to 500VDC	
Reverse Polarity Protection	Yes	
Surge Protection	Yes, up to 500VDC	
Overload Protection	Yes, in combination with approved power supply	
Load Types	Optimized for constant voltage LED lamps and modules	
	Compatible with resistive loads	
	Not for use with inductive loads (motors etc.)	



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TECHNICAL SPECIFICATIONS continued

Power supply requirement

AC/DC or DC/DC power supply

Power supply must be CE and IEC 61347-2-13 compliant

Power supply output voltage must meet the load voltage requirement

Power supply Max. output power must not exceed 105W

Battery Supply

In-line fuse must be used
Only 12VDC and 24VDC batteries are specified
Battery voltage must meet the load voltage requirement
Fuse rating: 8A for 12VDC battery and 4A for 24VDC battery

Load compatibility and maximum ratings

Constant VOLTAGE power supplies/drivers	Constant CURRENT power supplies/drivers	Wire Wound, Inductive, Fluorescent & CFL
Compatible 9-48VDC, 96W max	Compatible with most, but must be tested 9-48VDC, 96W max	NOT Compatible

Software features

Microprocessor Control	Yes
Soft start	Yes
Bell-press Control	Continuous cycling
Minimum Intensity Control	Yes
Memory	Yes, returns to previous dimming when turned on

Environmental

Operating Temperature	-5 - +40°C
Storage Temperature	-30 - +80°C
Maximum Housing Temperature	65°C
Relative Humidity	90% (non condensing)
Enclosure	36 x 36 x 12mm Plastic

Conformity

EMC and Immunity	CISPR 15 (2018 ED 9.0), CISPR 32 (2015 ED.2.0), IEC 61547 (2009)
Safety	IEC 61347-2-13:2014/AMD1:2016 used in conjunction with IEC 61347-1:2015
Quality Management	ISO 9001:2015

INSTALLATION INSTRUCTIONS

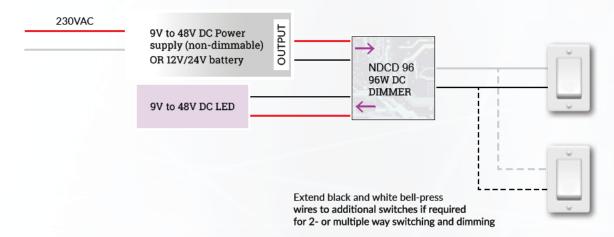
- Installation must be carried out by a qualified and registered electrician
- Installation must be carried out in accordance with the local code of practice
- Wire the DC power supply to the Input terminal
- Wire the load to Output terminal
- Wire a normally open (N.O.) bell-press switch to the control wires
- Never connect any of the terminals or control wires to mains live, neutral or earth
- Install only one dimmer per wall box
- Internal use only
- Do not install or operate close to flammable materials
- Shielded wire must be used for multiple connected dimmers if the distance between dimmers exceeds 3m



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WIRING DIAGRAMS

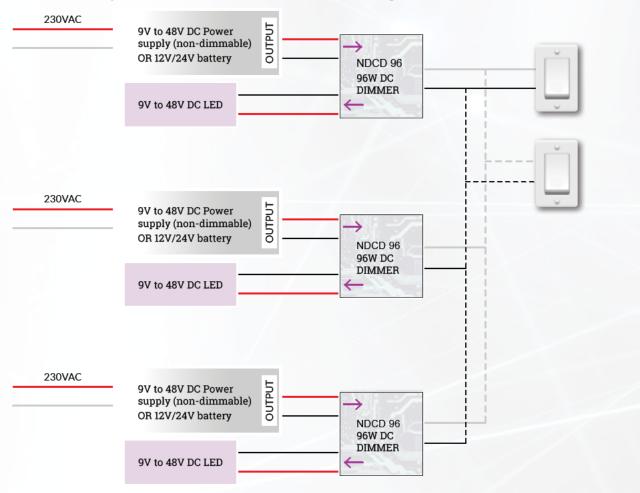
Single dimmer installation



Multiple dimmer installation

(master/slave operation - one dimmer per power supply)

Double click switch to synchronise dimmers and activate master/slave operation





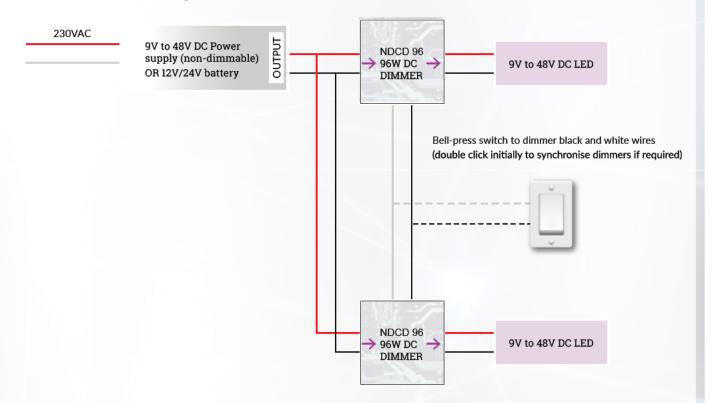
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WIRING DIAGRAMS continued

Multiple dimmer installation

(master/slave operation - multiple dimmers per power supply)

Double click switch to synchronise dimmers and activate master/slave operation Power supply inputs of dimmers may be connected together but LED outputs of dimmers, must never be connected together







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OPERATING AND PROGRAMMING INSTRUCTIONS

Turning the light on or off

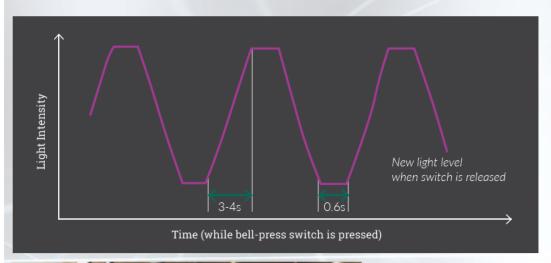
Press and release the bell-press switch once to turn the dimmer (light) on or off. The dimmer will remember the last dim level (light intensity) where it was turned off and return to the same light level when turning on again.

If the bell-press switch is pressed and not released when turning the dimmer on, the dimmer will turn the light on to it's previous level when it was turned off, wait for 1.5 seconds to ensure that the startup conditions are met and then start to dim until the switch is released as is described below.

Dimming up or down

When the light is on, press the bell-press switch (do not release immediately, the dimmer will turn off). The light will dim either up or down, release the switch at the desired light level. Should the dimming direction be incorrect, release the bell-press switch momentarily and press and hold again, the dim direction will be reversed. This process can be repeated continuously should a very specific light level be desired.

If the bell-press switch is continuously pressed while the light is on, the light intensity will continuously cycle between minimum and maximum with a slight delay when maximum or minimum light intensity is reached (see diagram below). When the bell-press switch is released, the light level will remain at the intensity at the instance when the switch was released.







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