



multiload

# Leading-edge Dimmer AD2500

0-10V controlled leading-edge dimmer  
40W to 2.3KVA

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## Product order code

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**AD2500**  
Leading-edge Dimmer



# Installation and technical specification

## Function

The Leading-edge Dimmer AD2500 is a stand-alone product connected to the mains supply, providing regulated power for all dimmable mains voltage lighting loads dimmable by leading edge technology.

The AD2500 is controlled by a standard 0-10V signal, which may come from a simple wall plate rotary control (such as RPC) or from a lighting control system (such as MoodMaker).

The AD2500 includes a relay, which switches OFF and isolates the phase controlled variable live dimming output (and the ancillary switched live output) when the input signal falls below approximately 1V.

## Installation

**Installation should be carried out by suitably qualified personnel in accordance with good electrical practice and the appropriate national wiring regulations.**

**Switch off mains electrical supply before commencing installation.**

### Positioning

Using suitable fixing screws, secure the AD2500 unit in position allowing adequate ventilation around the unit. If several units are adjacent they should be mounted at least 25mm apart. Make sure cupboards are well ventilated.

### Fuse changing

The unit is protected by a 16A (F) Quick Blow ceramic fuse inside the enclosure cover. Make sure mains supply is securely switched off before removing cover. Remove and replace fuse avoiding deformation of fuse clips and contamination of fuse end caps.

### Circuit considerations

1. Under no circumstances should the variable live output of different units in a multi-unit installation be paralleled, i.e. each unit must feed a separate load circuit.
2. To avoid damage, the AD2500 must be disconnected if the wiring is tested with a circuit tester.
3. The mains supply wiring must be capable of delivering the full rated current of the load and must be suitably protected (the 10A MCB feeding the AD2500 will usually do this).

### Removing low level flicker on some mains dimmable LEDs

Due to the characteristics of some mains dimmable LED lamps (or drivers), dimmable by trailing-edge technology, the lamps may flicker at low brightness levels. This flicker can be eliminated when using the Multiload Push-control Dimmer (RPC) by adjusting the minimum preset to a higher level; or when using a lighting control system, such as Multiload's MoodMaker Scene-setting System by setting appropriate brightness levels.

See Related Product Options page 3

## Technical specification

### Mains input voltage

230 Volts AC +/- 10% 50Hz (Protected by MCB)  
Note: AD2500 accepts only a normal full sine wave

### Load rating

Minimum load 40W. Maximum Load 2.3kVA at 230V AC  
See Compatibility below

### Ambient temperature

-10 to 40°C

### SoftStart

Turns on lamps smoothly over a period of approximately 2 seconds. Activated by mains interruptions  $\geq$  100ms

### Terminal connections

Each terminal accepts 2 cables up to 4mm<sup>2</sup> each

### Mains supply terminals

L (Live): N (Neutral): E (Earth).  
Mandatory earth must be connected

### Load output terminals

Four terminals:

VL (fused variable live); N (neutral);

SL (fused fixed live – if required);

E (earth using the same mandatory earth input terminal E – if required)

### Signal input

0-10V terminals: 0V -ve and SIG IN

### Signal output terminals

A buffered (current boosted) version of the input signal appears on the SIG OUT terminal for connection to 0-10V drivers, ballasts, etc.

Each 45° terminal accepts cable up to 2.5mm<sup>2</sup>

### Efficiency

Power dissipation less than 1% of the rated load – efficiency greater than 99%

### DC component

Less than 1V

**Dimensions:** L:290mm W:138mm H:42mm

**Fixing dimensions:** L:270mm Wf:95mm

**Weight:** 1.3kg

**Finish:** Stove Enamel Black

**Knockouts:** Mains: 3 x 20mm Signal: 2 x 20mm

**Standards:** CE: marked

**RFI suppression:** to EN55015

**Electrical safety:** Conforms to EN60950

**Manufacture:** to ISO9001

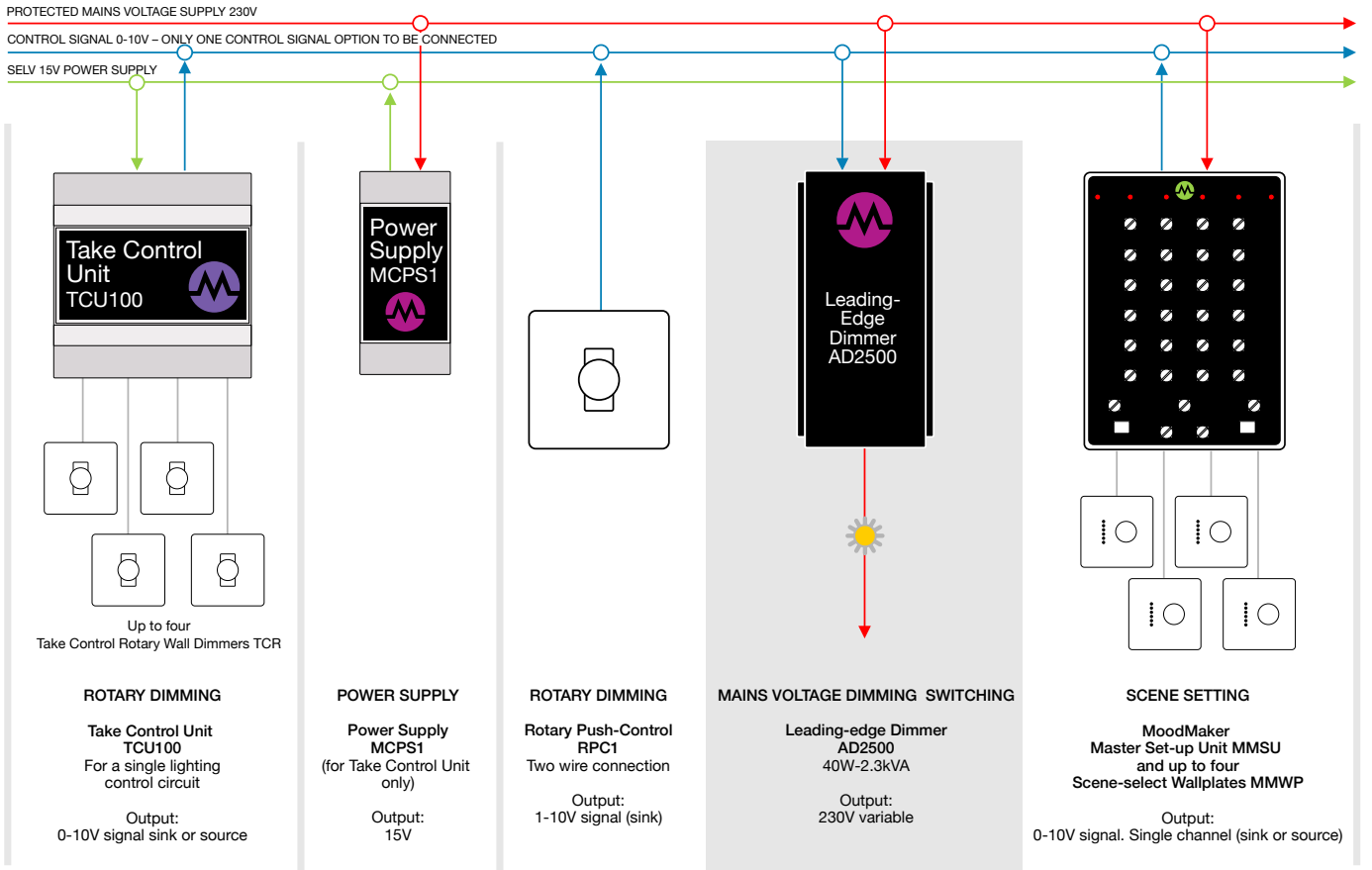
## Compatibility

The unit is compatible with:

- Mains dimmable LEDs and mains dimmable drivers for constant voltage and constant current LEDs. We recommend AD2500 is de-rated to a maximum of 1000W for LED loads.
- Mains voltage incandescent lamps
- Low voltage electronic transformers dimmable by trailing-edge phase control
- Mains halogen lamps

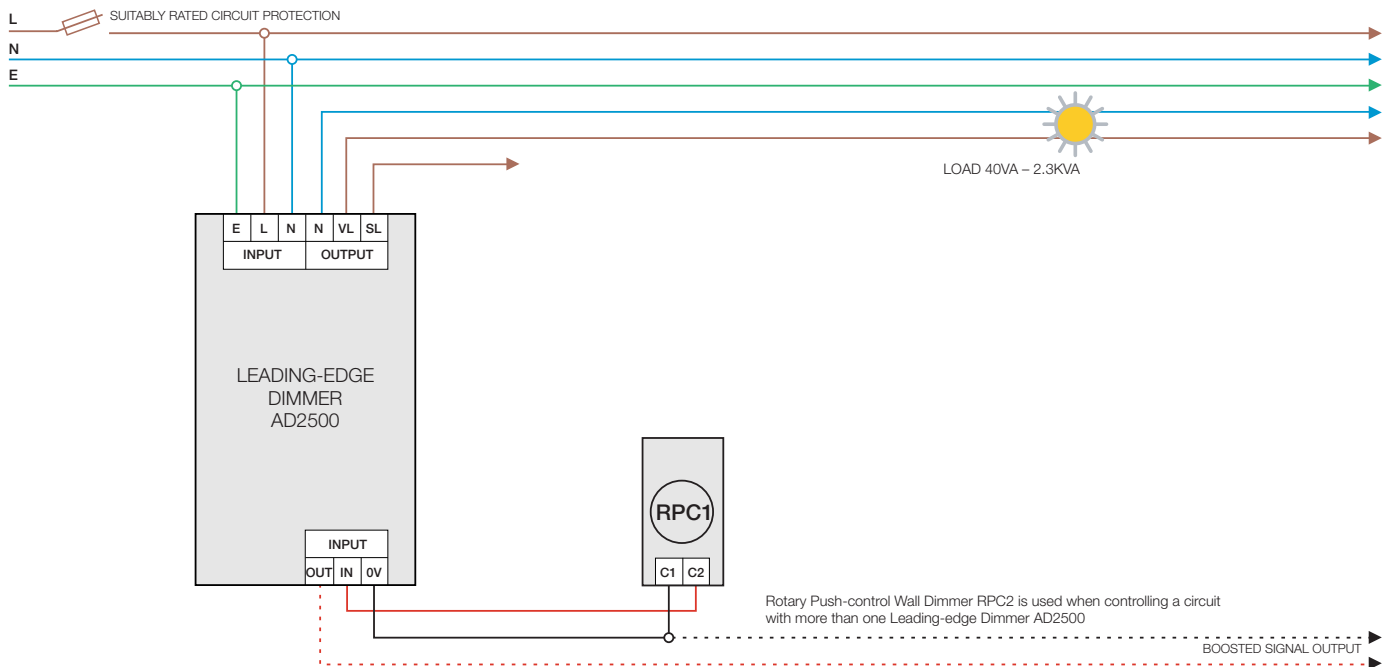


# Leading-edge Dimmer AD2500 related product options



## AD2500 wired to Rotary Push-control Wall Dimmer RPC

Rotary Push-control Wall Dimmer RPC2 is used when controlling a circuit with more than one Trailing-edge Dimmer ADT400

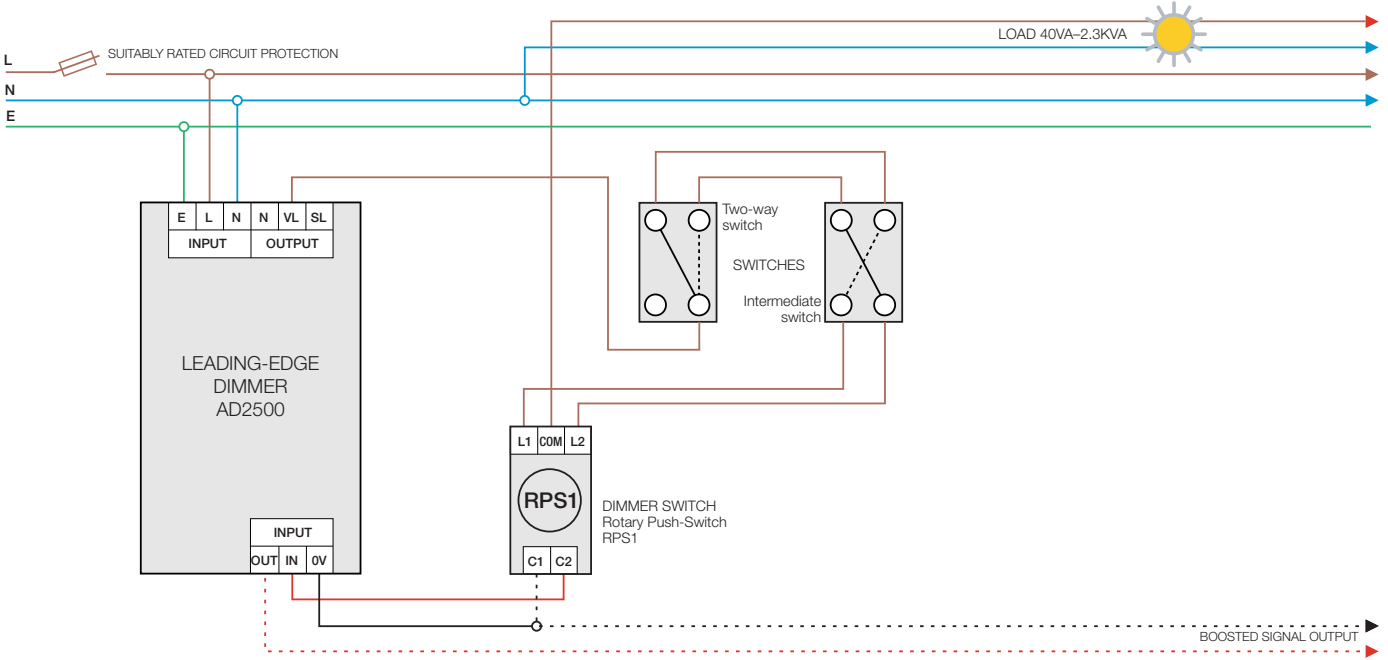


DRAWING NOT TO SCALE WD-AD2500-RPC. ISS-1-0116



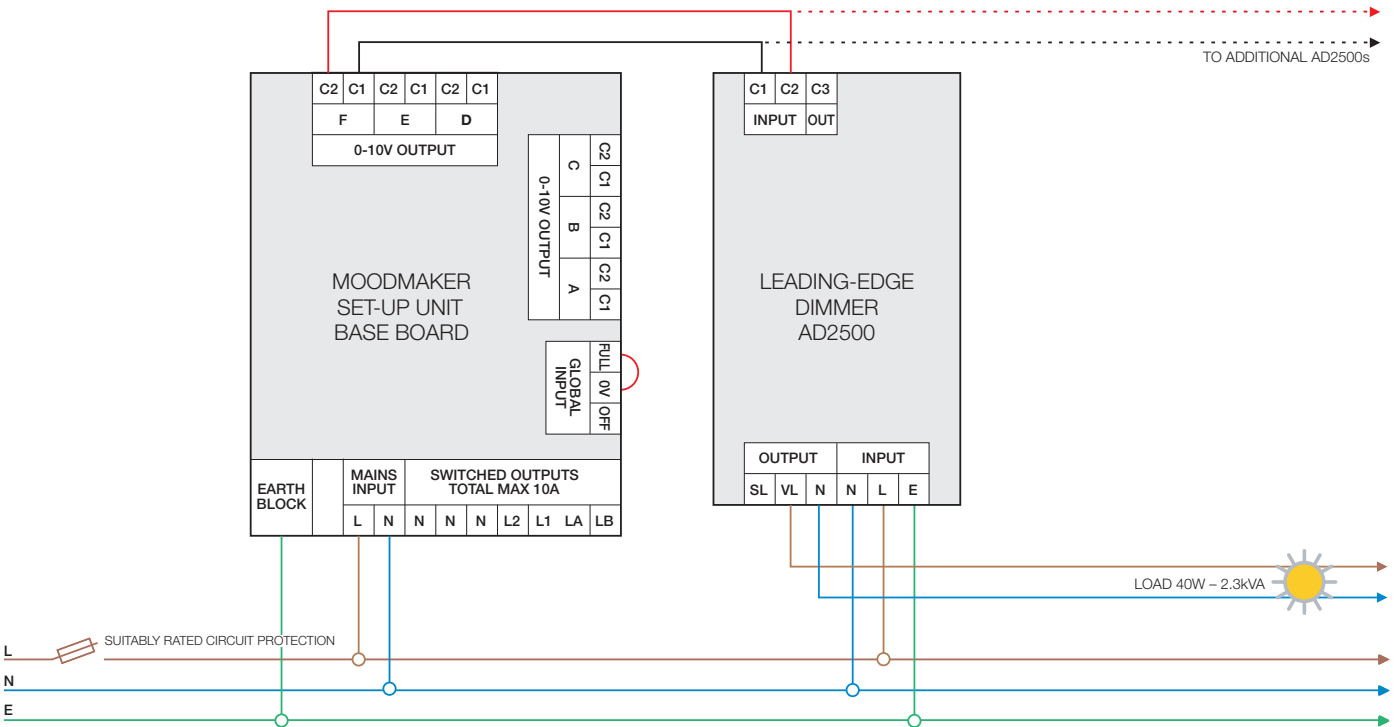
# Leading-edge Dimmer AD2500 wired to Rotary Push-switch Wall Dimmer RPS

When multiple switching is required



DRAWING NOT TO SCALE WD-AD2500-RPS. ISS-1-0116

# Leading-edge Dimmer AD2500 wired to MoodMaker Set-up Unit MMSU

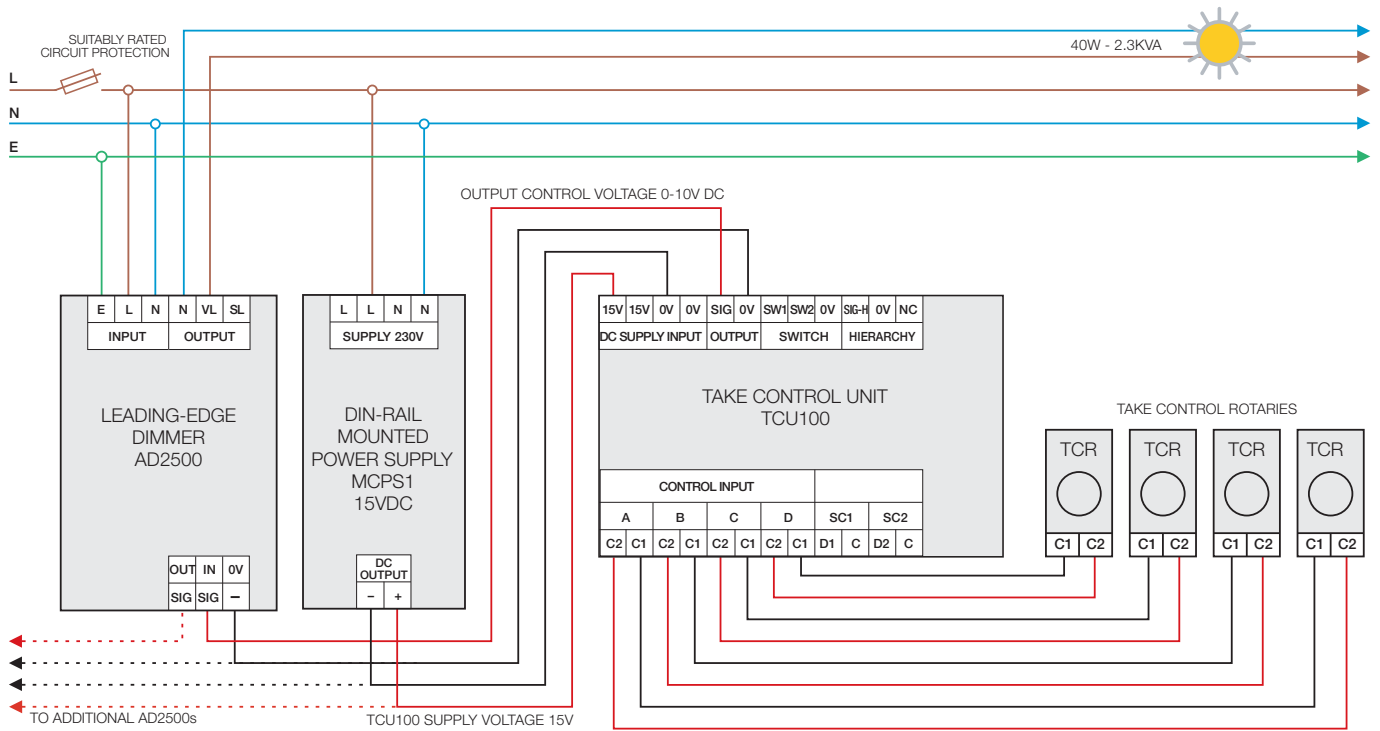


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# Leading-edge Dimmer AD2500 wired to Take Control Unit

Up to four position dimming and switching of a lighting circuit dimmable by leading-edge phase control



DRAWING NOT TO SCALE WD-AD2500-TCU100. ISS-1-0116