

Dimming Control

QD1 Dimmers



The QD1 dimmer is a versatile single channel dimmer which can also be used for zero voltage switching of suitable loads.

- Suitable for dimming control of incandescent, resistive, inductive/wound transformer loads, and most dimmable electronic transformers for low voltage or cold cathode lighting.
- C10 circuit breaker overcurrent protection.
- Selectable dimming or zero voltage switching operation.
- +10V reference voltage output for remote potentiometer connection.
- Suitable for wall mounting, pole mounting or free standing use.
- Optional emergency lighting terminal.
- Optional DMX input on XLR and RJ45 with bcd address setting.
- Recommended minimum load of 100W.
- Setting for use with electronic ballasts.
- Internal 0-25% preheat control.

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Supply Connection

The QD1 dimmer requires earth, neutral and live connections for safe operation. The earth and neutral connections should be made to the earth and neutral connection blocks at the front left side of the PCB. The live feed should be connected to the Live terminal marked IN>.

Output neutral and earth connections should also be made to the common neutral and earth terminals. The output dimmed live connection to the load should be connected to the live terminal marked <CH1.

If the emergency lighting terminal option has been ordered, this live output will be on the terminal marked <CH2, with earth and neutral on the E & N connection block. This output will remain live whilst the pack is powered and the circuit breaker closed.

Analogue input connections

There are two 0-10V analogue input connections (input impedance > 40k Ω) on the screw terminal block to the right of the circuit breaker marked <1 and <2 respectively. The two analogue inputs are combined so that the highest input level sets the output dimming level.

A reference 0V and +10V 50mA supply are also made available for connecting to external potentiometer controls or other control equipment such as the Oxtron SFX Slider.

DMX 512 option

If fitted, this option will allow connection of DMX inputs via 3 or 5 PIN XLRs or via a convenient RJ45 connector. The RJ45 connection also provides a +5V supply to external equipment such as the Oxtron SceneMaster. The DMX address is on the three bcd switches. Address between 512 and 799 are interpreted as address 512 and address above 799 will be ignored.

DIL switch options

When DIL switch 1 is OFF, dimming operation is selected. With it ON the output will be zero voltage switched on and off as the inputs pass through the switching thresholds.

If problems are encountered when dimming loads connected via electronic transformers, Dil switch 2 must be set ON for better compatibility with type of load.

For a smooth output response, the normal dimming response time with Dil switch 3 OFF is approximately 100ms. By switching DIL switch 3 ON this response time can be extended to one second in order to diminish the thermal shock applied to large incandescent loads. Such loads should have a measure of preheat set as well, so that lamp filaments remain warm and in a high impedance state.

A DMX termination resistor can be switched in by setting DIL switch 4 to ON.

Technical Specifications

Supply: Nominal 200-240V Ac, 50/60Hz

Output Current: Maximum current 10A limited by C type circuit breaker, Minimum recommended load 100W

Fuse protection: Electronics fuse(internal) 5 x 20mm fglass fuse 100mA Time lag

Control/Inputs: Dual analogue 0-10V DC control inputs. Optional DMX input on XLR/RJ45

Operational options: Dimming or zero voltage switching. Electronic ballast dimming

Dimensions: 190mm x 174mm x 75mm

Weight: 1.7Kg

Compliance: Complies with relevant parts of current CE regulations for EMC: EN50081-1 emissions, EN50082-1 immunity and LVD: EN60439 / EN60950

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