

# ArcSystem<sup>1.5</sup>

## ARC-D4 ArcLamp drivers



### Datasheet



ARC-D4 ArcLamp driver 150



ARC-D4 ArcLamp driver 350/700

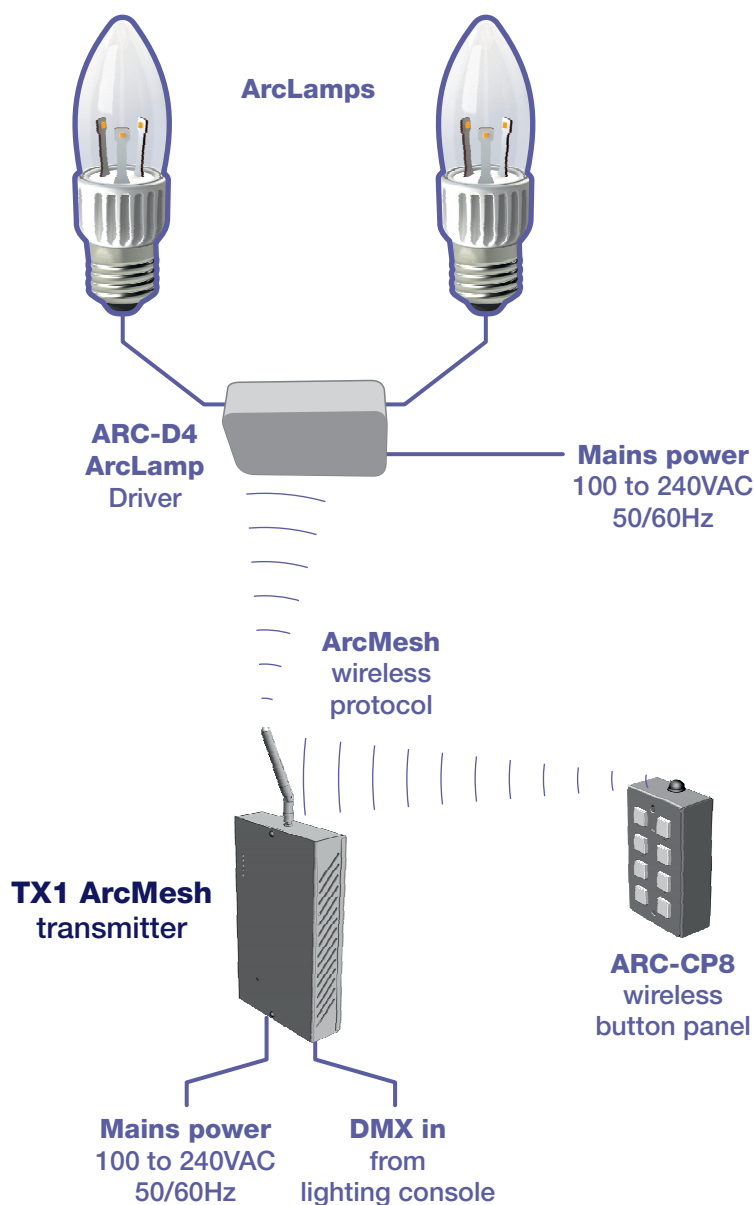
### Introduction

**ArcSystem** is a comprehensive range of LED lighting fixtures and control options specifically designed for auditorium and arena spaces where quality of light, precise dimming control and ease of installation are primary factors. Wireless operation allows for rapid integration of the whole ArcSystem with existing auditorium lighting installations.

GDS ArcLamps represent a breakthrough in the replacement of traditional tungsten lamps with comparable, yet low power, LED units. Multiple ArcLamps can be controlled by the ARC-D4 ArcLamp driver range, which perform the important task of converting wireless (or wired) control signals into smooth, step-less dimming. To deliver full flexibility, we offer a choice of models to suit the particular requirements of your installation (see page 2).

The **TX1 ArcMesh transmitter** controls and coordinates the ArcSystem drivers and lighting fixtures in response to inputs from wireless auditorium button panels and/or an external DMX feed from a lighting console.

Initial setup and ongoing maintenance is performed using the **ARC-CT Commissioning Tool**. This wireless USB dongle plus accompanying software allows the system to be configured and fine tuned from any location within the installation space, using just a basic notebook computer.



# ArcSystem<sup>1.5</sup>

## ARC-D4 ArcLamp drivers



### Range summary

#### ARC-D4 ArcLamp driver 150

Specifically designed for driving GDS low voltage ArcLamps.

- Enclosure: Wall mount (see page 6 for dimensions)
- Power input: 100 to 240VAC (50/60Hz)
- Power output: 24VDC, 150W maximum



ArcLamp **x28**

#### ARC-D4 ArcLamp driver 350

Specifically designed for driving GDS low voltage ArcLamps.

- Enclosure: 19" rack mount (see page 7 for dimensions)
- Power input: 100 to 240VAC (50/60Hz)
- Power output: 24VDC, 350W maximum



ArcLamp **x60**

#### ARC-D4 ArcLamp driver 700

Specifically designed for driving GDS low voltage ArcLamps.

- Enclosure: 19" rack mount (see page 7 for dimensions)
- Power input: 100 to 240VAC (50/60Hz)
- Power output: 24VDC, 700W maximum



ArcLamp **x120**

### Key features

- Multiple power and enclosure options to suit a wide variety of installations.
- All model variants available in standard and emergency versions.
- ARC-D4 ArcLamp drivers mesh seamlessly with all-in-one GDS fixtures, such as the Pro Four-Cell and Pro Eight-Cell.
- ARC-D4 ArcLamp drivers and their ArcLamp fixtures are straightforward to install in new and existing locations thanks to wireless operation.
- Choice of wired control inputs, where required.
- User control by wireless push button units and/or a DMX feed from any lighting console.
- Encrypted wireless operation, not identifiable by Wi-Fi.
- 100 to 240VAC 50/60Hz autosensing mains operation.
- Inrush currents (at 230VAC):

D4 ArcLamp driver 150	120A maximum
D4 ArcLamp driver 350	40A maximum
D4 ArcLamp driver 700	80A maximum

### Power input options

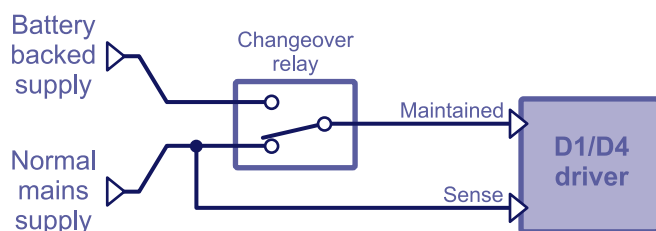
ARC-D4 ArcLamp drivers are all available in standard and emergency versions:

- **Standard** versions have a single mains power input. This is connected to the normal mains supply and in the event of a power failure, the fixture(s) will switch off.
- **Emergency** versions have two mains power inputs. One input is connected to a maintained supply (most often a central mains fed, battery backup installation with an inverter system) while the other input is connected to the normal mains supply as a sense line. Operational power is always taken from the maintained input.

*Note: For full conformity, the maintained supply must be fed to the driver via fire rated cable. Similarly, the feed cable to each emergency fixture must also be via fire rated cable.*

If at any time the sense input is lost (signalling an overall mains failure), the driver outputs will automatically go to a 100% on state, regardless of its wireless or wired control inputs. This will continue until the sense input is restored, whereupon normal operation will resume, as determined by the control inputs.

If the venue's central battery system only provides power upon mains failure, a changeover relay will be required to switch the maintained input from a normal mains supply to the battery fed system:



Changeover relays such as the ACM1 from Cooper Controls are suitable for use with ARC-D4 ArcLamp drivers.

### Output connections

The manner in which fixtures are connected varies according to the fixture type and the driver model:

- The ARC-D4 ArcLamp driver 150 wall-mount models have internal two-way terminal connectors for each of their four channels. The side panel of the enclosure has four 20mm knockouts which can accommodate glands for sealed cable access.
- The ARC-D4 ArcLamp driver 350 and 700W 19" rack-mount models both have pluggable two-way terminal blocks on their rear panels for each of their four output channels. The necessary terminal plugs are supplied with each unit.

### Control

The ARC-D4 ArcLamp drivers can be used with either wired or wireless control, as best suits your venue.

- **Wired** installations require a DMX connection from the control source to be fed to the input socket of the first driver. A connection is then taken from the output socket of that driver to the input socket of the next driver, and so on.

The use of an optional\* TX1 ArcMesh transmitter provides the great advantage that multiple control sources, including wireless control panels (as well as the lighting console) can be combined and arbitrated to determine the required lighting states.

- **Wireless** control mandates the use of a TX1 ArcMesh transmitter to provide the source wireless control signal. The TX1 ArcMesh transmitter uses an industry standard communication protocol (IEEE802.15.4) and is designed to reliably operate over short to medium distances. The beauty of the ArcSystem is that the transmitter does not need to reach every driver or fixture; the ARC-D4 ArcLamp drivers (as well as all Pro multi-Cell fixtures) are capable of re-transmitting the data they receive in order to greatly extend the range over which they can operate as a whole. We call this **ArcMesh** and it provides great flexibility to the system.

*\* Note: The TX1 transmitter is optional for the operation of a wired installation, however, a TX1 or USB TX1 unit will need to be used for the initial configuration.*

Whether using wired or wireless control, the initial setup (and ongoing maintenance) must be performed using the **ARC-CT Commissioning Tool**. This wireless USB dongle plus accompanying software allows the system to be configured and fine tuned from any location within the installation space, using just a basic notebook computer.

### Wireless antennas

The ARC-D4 ArcLamp drivers all include an in-built wireless antenna.

### Order codes

#### **ARC-D4 ArcLamp driver 150**

ArcLamp dimming, 150W maximum output, suitable for driving multiple ArcLamps. ArcMesh and wired control, metal wall mount enclosure.

standard model: ARCP15MD4AL24W-150  
emergency model: ARCP15MD4AL24W-150E

#### **ARC-D4 ArcLamp driver 350**

ArcLamp dimming, 350W maximum output, suitable for driving multiple ArcLamps. ArcMesh and wired control, standard 19" rack mount enclosure.

standard model: ARCP15MD4AL24R-350  
emergency model: ARCP15MD4AL24R-350E

#### **ARC-D4 ArcLamp driver 700**

ArcLamp dimming, 700W maximum output, suitable for driving multiple ArcLamps. ArcMesh and wired control, standard 19" rack mount enclosure.

standard model: ARCP15MD4AL24R-700  
emergency model: ARCP15MD4AL24R-700E

#### **To specify state (ARC-D4 ArcLamp driver 150):**

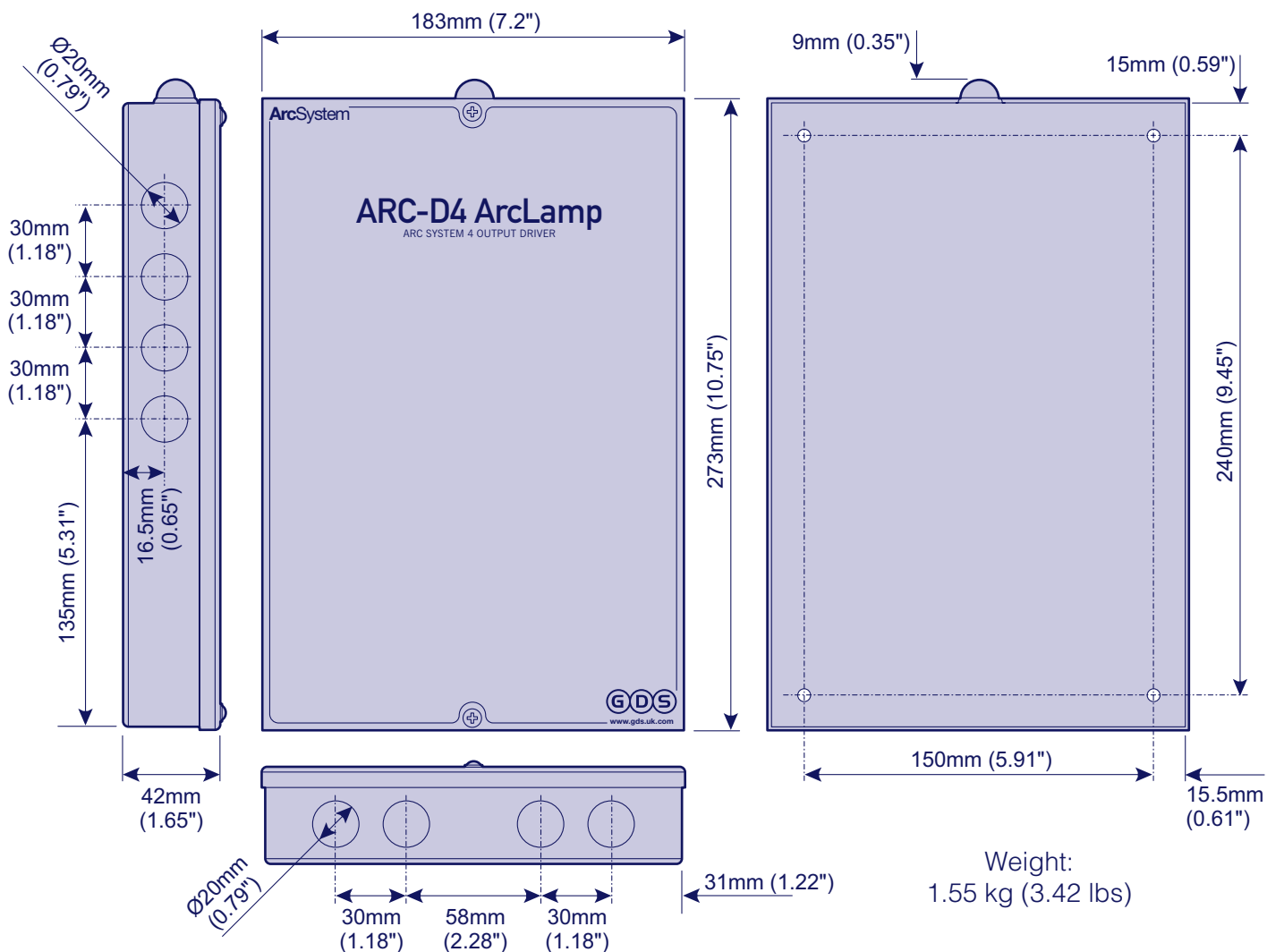
A high performance driver having 100% to absolute zero dimming, controllable from local DMX or via the ArcMesh wireless protocol. Designed to drive ArcLamp fixtures only, this unit delivers a total power output of up to 150W. The driver is designed for wall fixing with all connections enclosed and accessible by conduit knockouts; the sturdy case is constructed from powder coated mild steel. The driver benefits from convection cooling and is silent in operation.

#### **To specify state (ARC-D4 ArcLamp driver 350/700):**

High performance drivers having 100% to absolute zero dimming, controllable from local DMX or via the ArcMesh wireless protocol. Designed to drive ArcLamp fixtures only, these units deliver a total power output of up to 350 or 700W (model dependent). The drivers are designed for 19" rack mount, requiring only a 1U slot. All connections (DMX data in and out, as well as the outputs to the fixtures) are available at the rear panel.

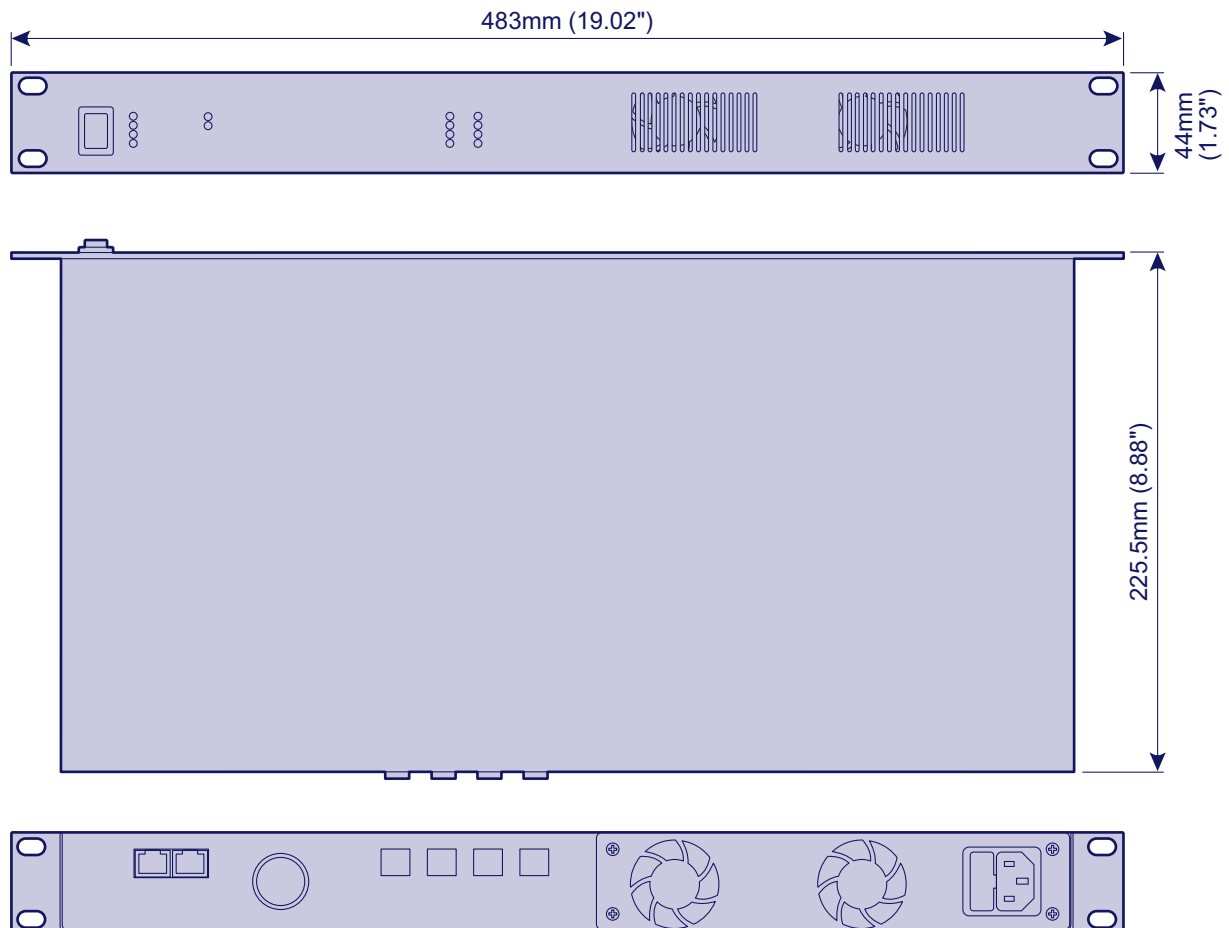
### Dimensions

#### ARC-D4 ArcLamp driver 150



### Dimensions (continued)

#### ARC-D4 ArcLamp driver 350 and 700



#### Weight:

350W version - 3.7 kg (8.16 lbs)

700W version - 4.2 kg (9.26 lbs)



# ArcSystem<sup>1.5</sup>

## ARC-D4 ArcLamp drivers



### Key items within the ArcSystem range

#### TX1 ArcMesh transmitter

*A vital element in most ArcSystem installations. Controls and coordinates all other elements.*



#### ARC-CP8 button panels

*Provide direct recall for 8 of the 24 preset scenes contained within the TX1 ArcMesh transmitter.*



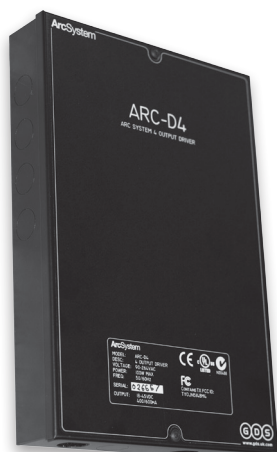
#### ArcMesh Control USB Commissioning Tool & software

*A USB wireless interface tool plus PC application used to commission and maintain ArcSystem installations.*



#### ARC-D1 and ARC-D4 drivers

*Mains powered compact drivers in various sizes to dim Pro One-Cell fixtures or ArcLamps according to wireless (or wired) control. Emergency versions also available.*



#### Pro One-Cell fixtures

*A range of high output recessed, and yoke mount, single emitter fixtures. These require the use of a D1 or D4 CC driver.*

#### ArcLamps

*A range of direct replacement lamps for traditional fixtures. ArcLamps are designed to closely mimic the light output and dimming response of traditional 60W tungsten lamps. ArcLamps require the use of an ARC-D4 ArcLamp driver.*



#### Pro Multi-Cell (Two to Eight) fixtures

*Mains powered fixtures with 2, 4 or 8 emitters. All driver and wireless systems on board. Can also be hardwired to the control system where necessary. Emergency versions also available.*



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