

PROJECT

FIRM

ORDER #

TYPE

QTY



Aqua Drum E3™ fixtures are high output, submersible LED fixtures, fully rated for pool environments down to a depth of 20 feet (6m).

Every Aqua Drum E3 features a super-large (3.34"/85mm) diameter LED emitter/TIR optic source to produce beam widths from a wide 100° down to an ultra tight 3°. Unlike other manufacturers, we use identical emitters across all of those beam width options to ensure homogenized color reproduction and class-leading center candela.

The stylish stainless steel head can be ordered with a sturdy yoke bracket or alternatively with kits to suit in-ground or in-wall pool niche installation. Each head is supplied pre-fitted with a STOW (**S**ervice, **T**hermoplastic, **O**il and **W**ater resistant) cable (up to 100' / 30.5m) ready for long term installation in the most testing environments.

Up to four Aqua Drum E3 fixtures can be fed from a single Aqua Driver 4 unit under DMX/RDM control (or 0-10V / DALI using optional signal converters - see page 12).

At a glance


Optics

- 3° x 3° (native), 6° x 6°
- 10° x 10°, 10° x 60°
- 20° x 20°
- 30° x 60°, 40° x 40°
- 60° x 60°
- 100° x 100°


Emitters

- Fixed White** (2400K, 2700K, 3000K, 3500K or 4000K)
- Dynamic White (DW)** (2400K to 5500K)
- Q RGBL with CCT Select** (1800K to 6000K)
- Q RGBA**


Depth

20 feet (6m)


Power

Low voltage:
24VDC via
Aqua Driver 4


Temperature

-40° F to 131° F
-40° C to 55° C


Protection

Ingress: **IP68**
Impact: **IK08**
Vibration: **3G**


Output

Up to
4,742 lumens


Material

316L stainless steel
suitable for freshwater,
chlorinated, brominated and
saltwater pools

Configure your product

AUA - 26 - A

Example final code: **AUAK-260-AHECY**

Connector:
I = Standard
K = Pool & Spa

See page 10

Internal louver:
0 = None
1 = Honeycomb*

* reduces output
by 40%

Optics:
A = 3° x 3°
B = 6° x 6°
C = 10° x 10°
D = 20° x 20°
H = 40° x 40°
K = 60° x 60°
M = 100° x 100°
R = 10° x 60°
Q = 30° x 60°

Emitters:
C = 2400K
D = 2700K
E = 3000K
F = 3500K
G = 4000K
L = RGBL
T = RGBA
X = DW (2400K-5500K)

Cable length:
A = 5' (1.5m)
B = 10' (3m)
C = 25' (7.6m)
D = 50' (15.2m)
E = 75' (22.8m)
F = 100' (30.5m)

Mount:
Y = Yoke
G = In-ground
P = Pool niche

See page 4



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Specifications

Emitters	2400K, 2700K, 3000K, 3500K, 4000K, DW (2400K-5500K), RGBA or RGBL with CCT Select (1800K-6000K) - see page 11
Optics	3° x 3°, 6° x 6°, 10° x 10°, 20° x 20°, 40° x 40°, 60° x 60°, 100° x 100°, 10° x 60° or 30° x 60°
Output	Up to 4,742 lumens
Lumen maintenance	L ₇₀ 90,000 hours (@ 25° C)
Control	0-100% dimming through DMX (via Aqua Driver 4). Use optional converters for 0-10V or DALI
Fixtures per driver	Four fixtures per Aqua Driver 4 (Standard or Pool & Spa variants)
Operating voltage	24VDC. Aqua Driver 4 requires 100-277VAC, 50/60Hz
Power consumption	Submersible mode: 50W Non-submersible mode: 25W (see page 11)
Connection	Attached STOW cable (6 x 16AWG), various cable length options available
Mounting	Sturdy stainless steel yoke or in-ground/in-wall pool options
Effective projected area	0.67 ft ²
Material	316L stainless steel body, glass top lens
Finish	Stainless steel, suitable for freshwater, chlorinated, brominated and saltwater pool environments*
Ambient temperature range	-40° F to 131° F (-40° C to 55° C)
Ingress protection	IP68, submersible to 20' (6m)
Impact protection	IK08, protection against 5 joule impact (40cm distance) - walk over rated
Vibration protection	ANSI C136.31, 3G-rated for high vibration and bridge applications
Warranty	5 years, limited
Weight	14.8 lbs (6.7kg)
Dimensions	See page 5

Certifications



* not rated for ocean or seawater immersion.

Photometrics

For all available IES files, please visit acclaimlighting.com/products/aqua-drum-e3

Optics	4000K Lumens	Center Candela	Efficacy (lm/W)
3° x 3° (native)	3,277	200,505	65
10° x 10°	3,084	80,231	62
20° x 20°	2,999	18,055	60
40° x 40°	2,732	4,212	55
60° x 60°	2,652	3,142	53
100° x 100° (no optic)	4,742	1,742	95
10° x 60°	2,732	13,126	55
30° x 60°	2,649	5,092	53

To calculate outputs for other emitters

The table left shows the photometric test results for a Aqua Drum E3 fixture fitted with 4000K white emitters in combination with each of the various optic options. To calculate the lumen output for any other emitter type, take the **4000K lumens** value for the required optic and multiply it by one of the following:

- 2400K 0.731
- 2700K 0.880
- 3000K 0.935
- 3500K 0.970
- RGBL 0.634
- RGBA 0.600
- DW 0.954

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Related components

Drivers

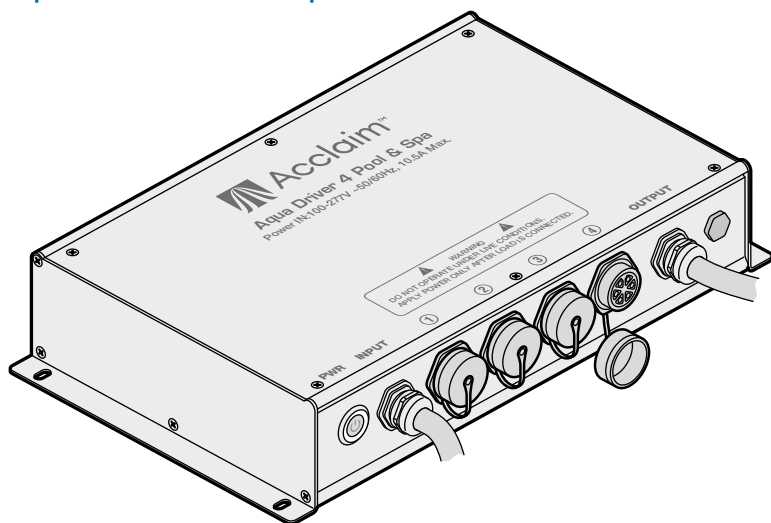
Aqua Driver 4 - Standard



100-277VAC 50/60Hz input. Connect up to four Aqua Drum fixtures. Uses hardwire terminal blocks for landing fixture connections within a dry location. AquaSense technology automatically configures the current requirements of the connected fixtures at power up.

Part # **AQDR4S**

Aqua Driver 4 - Pool & Spa

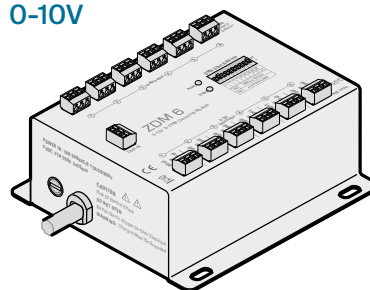


100-277VAC 50/60Hz input. Connect up to four Aqua Drum fixtures via IP68-rated 6-way connectors for mounting within pool and spa areas. AquaSense technology automatically configures the current requirements of the connected fixtures at power up.

Part # **AQDR4P**

Signal converters (see page 12)

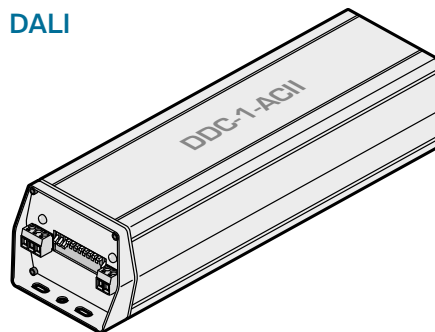
0-10V



Multi-channel (0-10V) converter

ZDM6

DALI



DALI 2 (DT6 & DT8) 64 channel converter

DDC1AC

Test and configuration tool kit



DMX/RDM, ArtNet, sACN, SMPTE LTC and Midi test/configuration tool

DMXcat-E

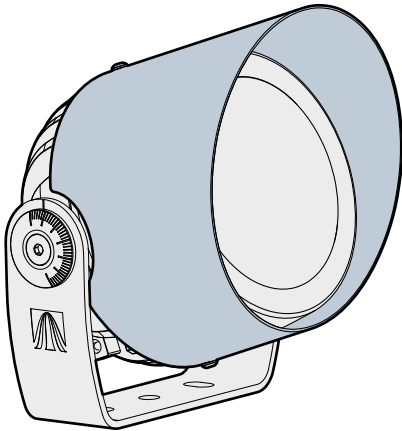


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Related components

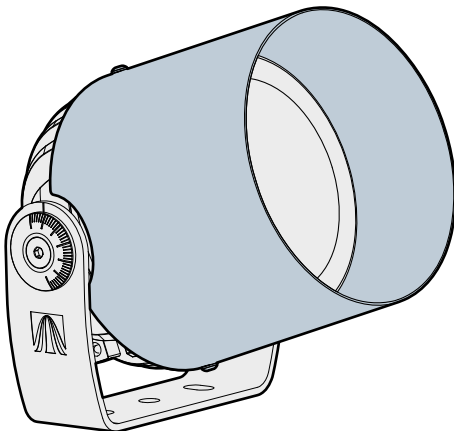
Beam accessories

Half snoot



AUAHS (stainless steel)

Full snoot



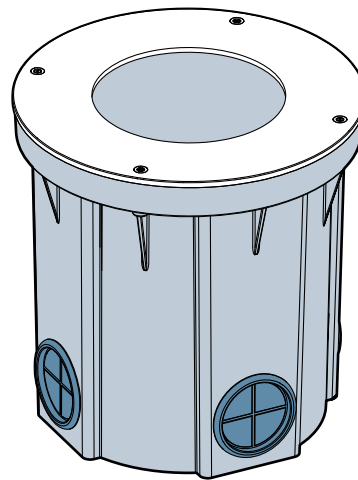
AUAFS (stainless steel)

Mounting accessories

The **in-ground** or **in-wall (pool niche)** sleeves are required to house Aqua Drum E3 fixtures that are ordered without a yoke, using either the 'G' or 'P' main order code suffixes, respectively - see "Configure your product" on page 1.

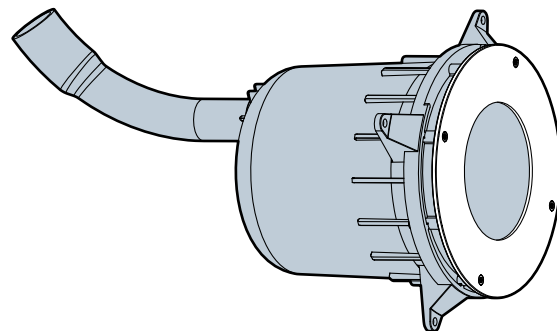
The necessary stainless steel trim rings are supplied together with the specially ordered fixtures, rather than with the sleeves.

In-ground sleeve



AUAIGSK (stainless steel trim ring supplied with the fixture*)

In-wall (pool niche) sleeve



AUAIWPK (stainless steel trim ring supplied with the fixture*)

* A removable pour cover is provided with each in-ground sleeve for use during installation to protect the sleeve internals.



PROJECT

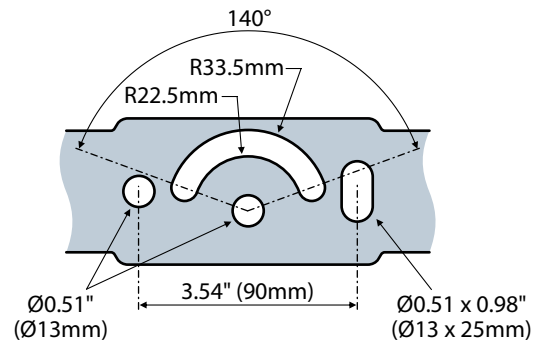
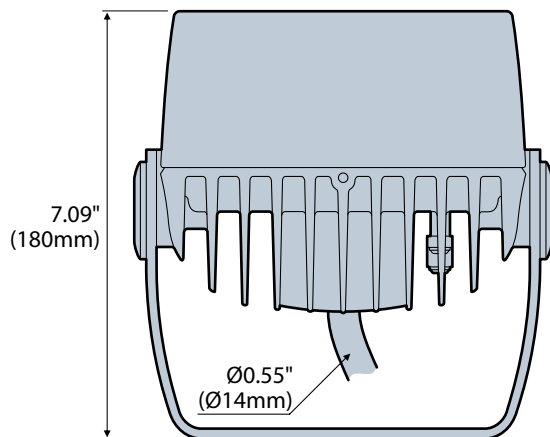
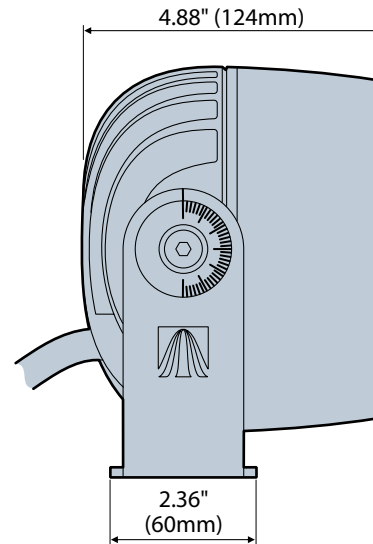
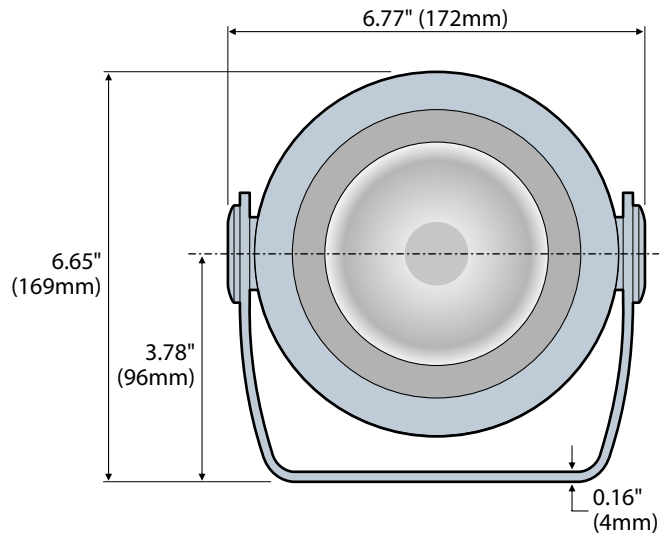
FIRM

ORDER #

TYPE

QTY

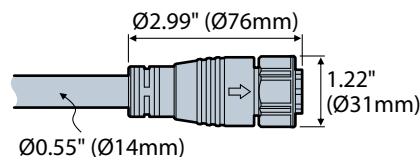
Dimensions



Weight: 14.8 lbs (6.7kg)

IP68 (Pool & Spa option) plug and cable

Heads using the Standard option use the same cable type but have removable connectors



PROJECT

FIRM

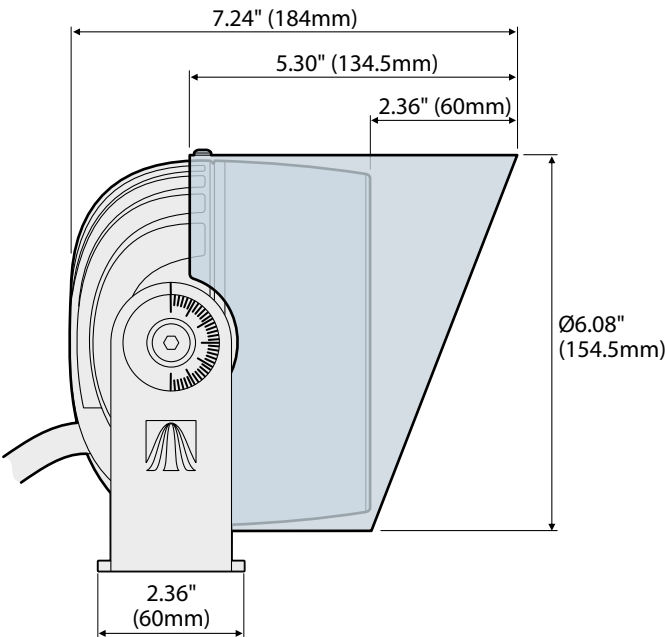
ORDER #

TYPE

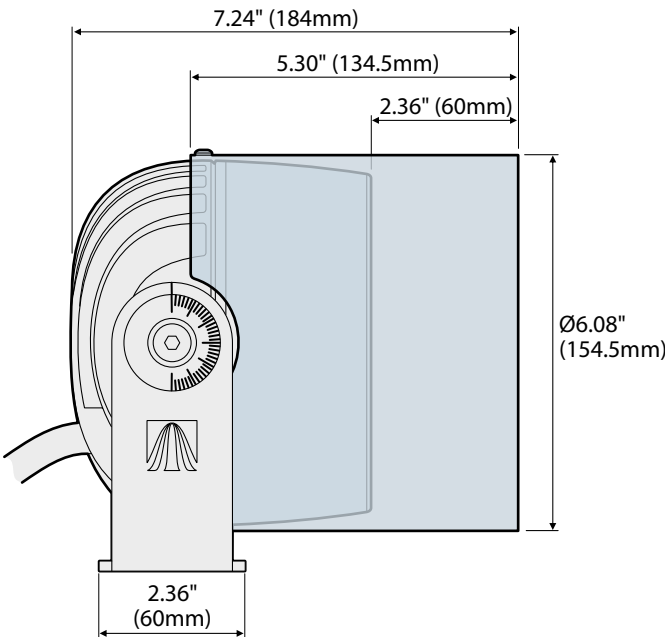
QTY

Dimensions

Half snoot



Full snoot



PROJECT

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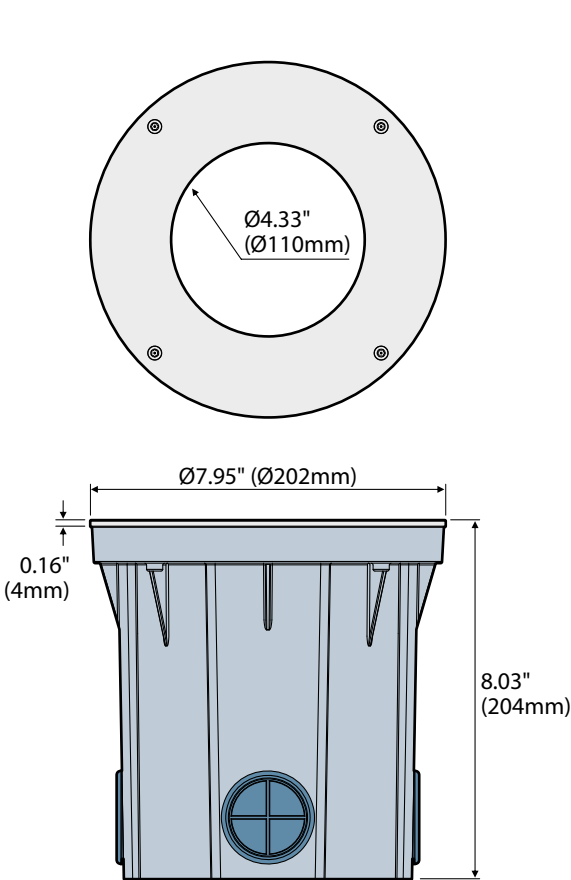
ORDER #

TYPE

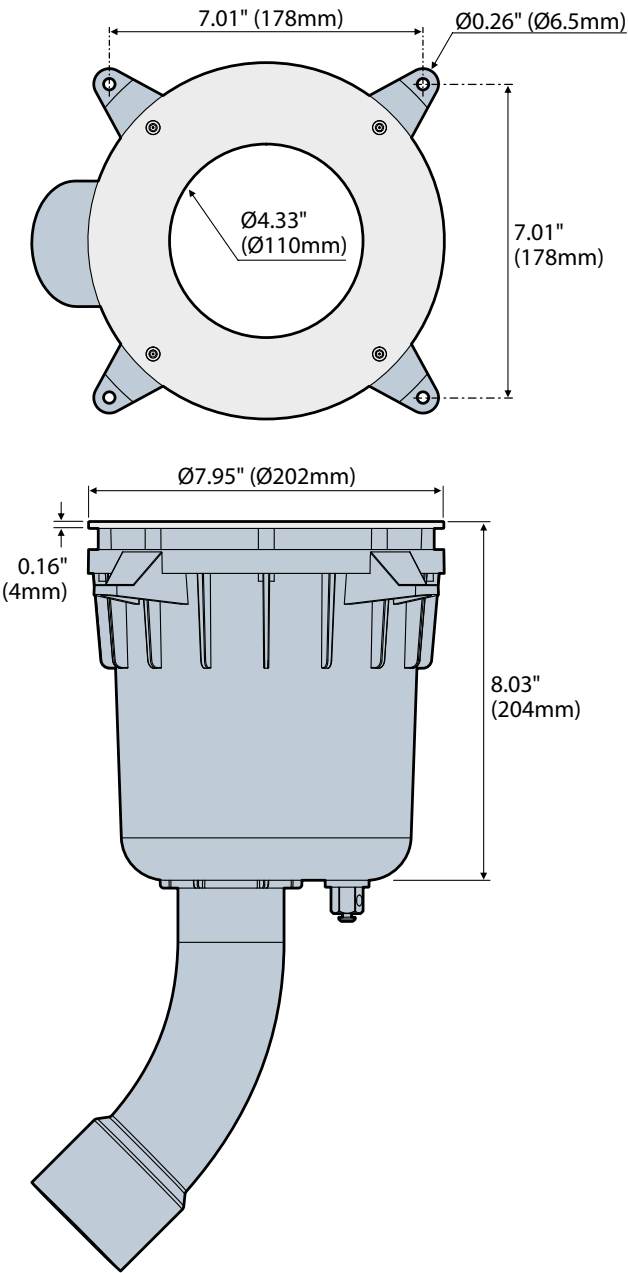
QTY

Dimensions

In-ground sleeve



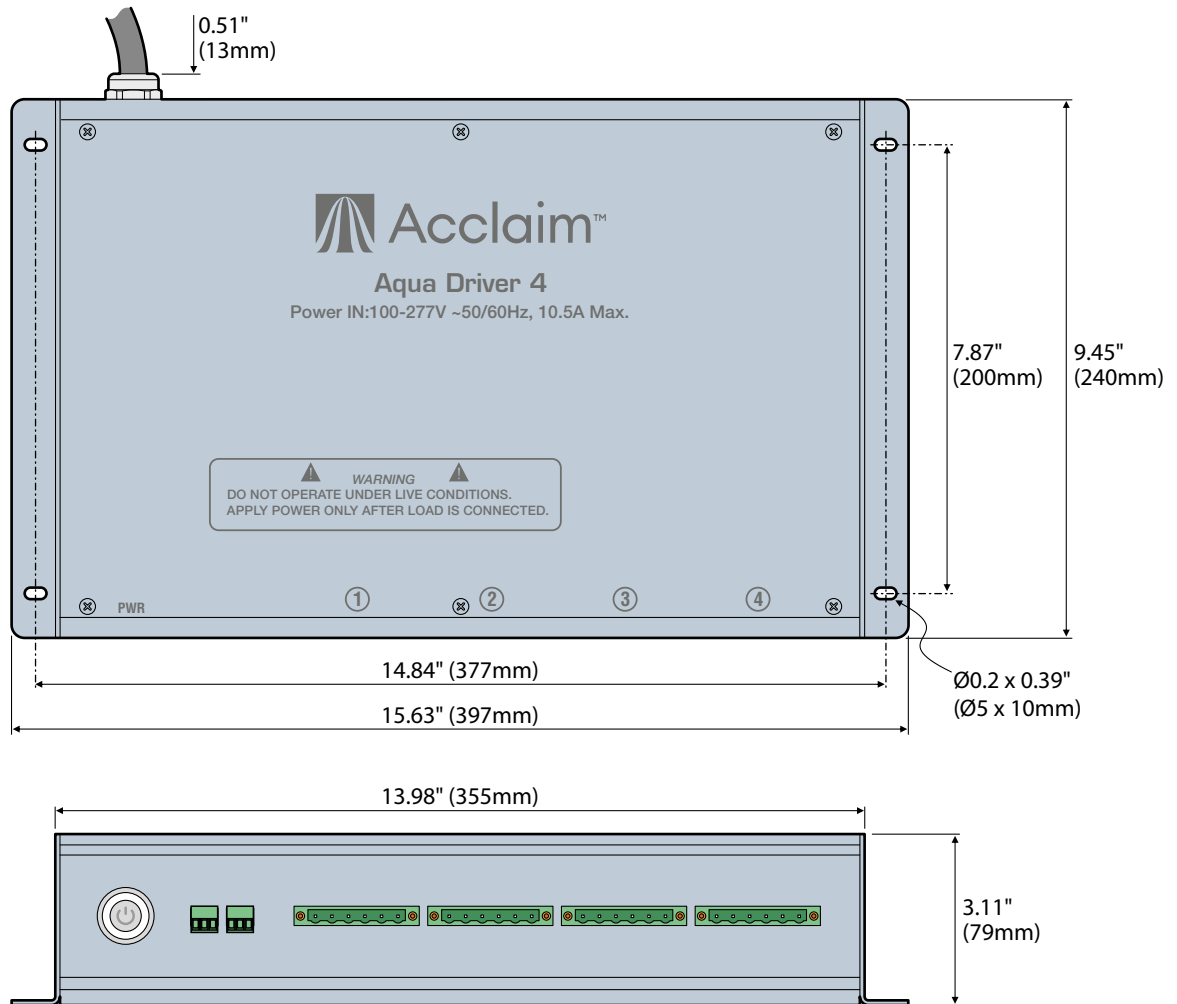
In-wall (pool niche) sleeve



PROJECT	FIRM	ORDER #	TYPE	QTY
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Dimensions

Aqua Driver 4 Standard



Weight: 10.58 lbs (4.8kg)

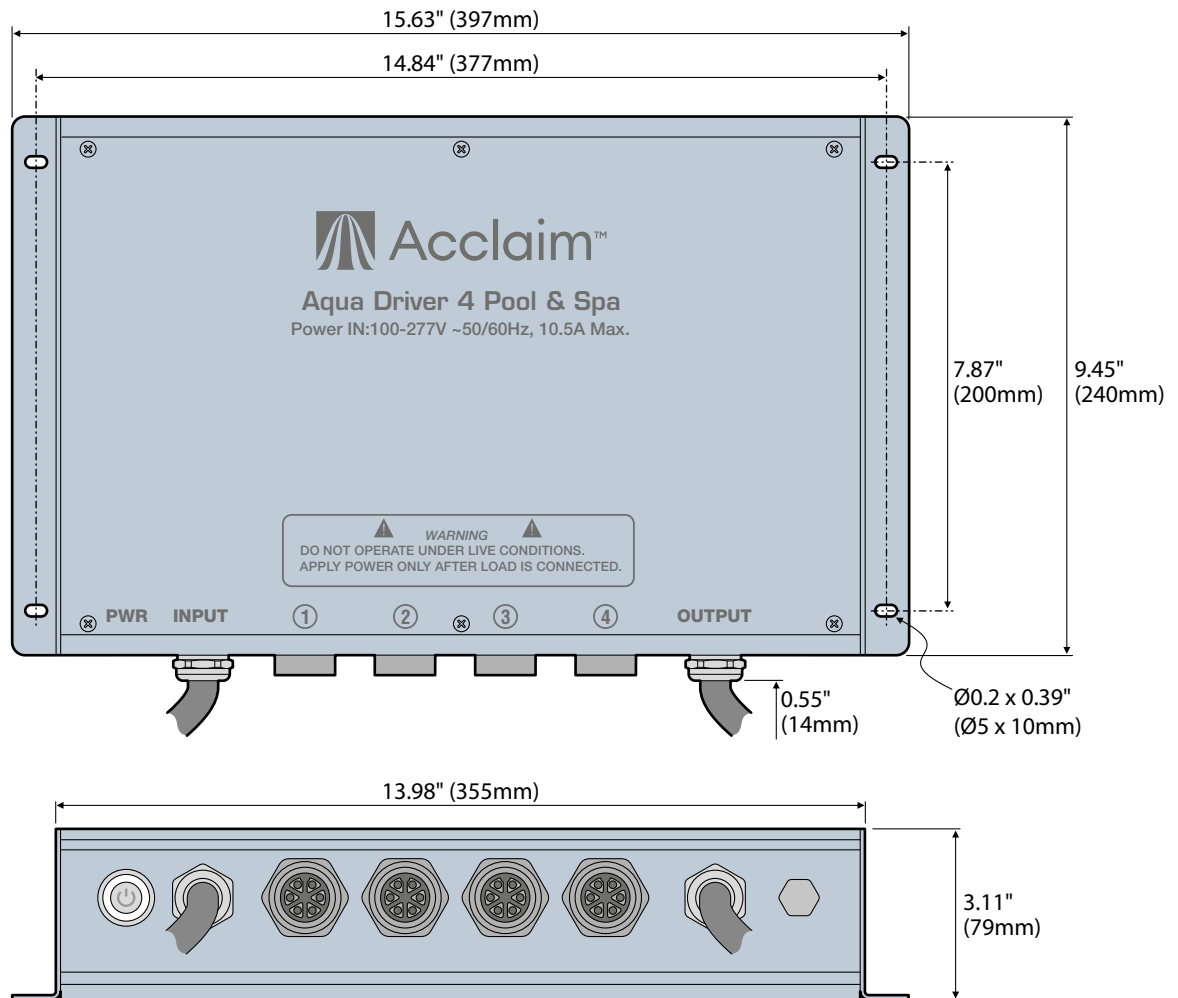
Note: Mixtures of Aqua-series heads can be mixed on a single Aqua Driver 4, e.g. Aqua Drum E3, Aqua Drum S3, Aqua Linear 1' and Aqua Linear 4' can all be driven from the same unit if required. All heads connected to the driver must have the same emitter options.



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Dimensions

Aqua Driver 4 Pool & Spa



Weight: 12.12 lbs (5.5kg)

Note: Mixtures of Aqua-series heads can be mixed on a single Aqua Driver 4, e.g. Aqua Drum E3, Aqua Drum S3, Aqua Linear 1' and Aqua Linear 4' can all be driven from the same unit if required. All heads connected to the driver must have the same emitter options.

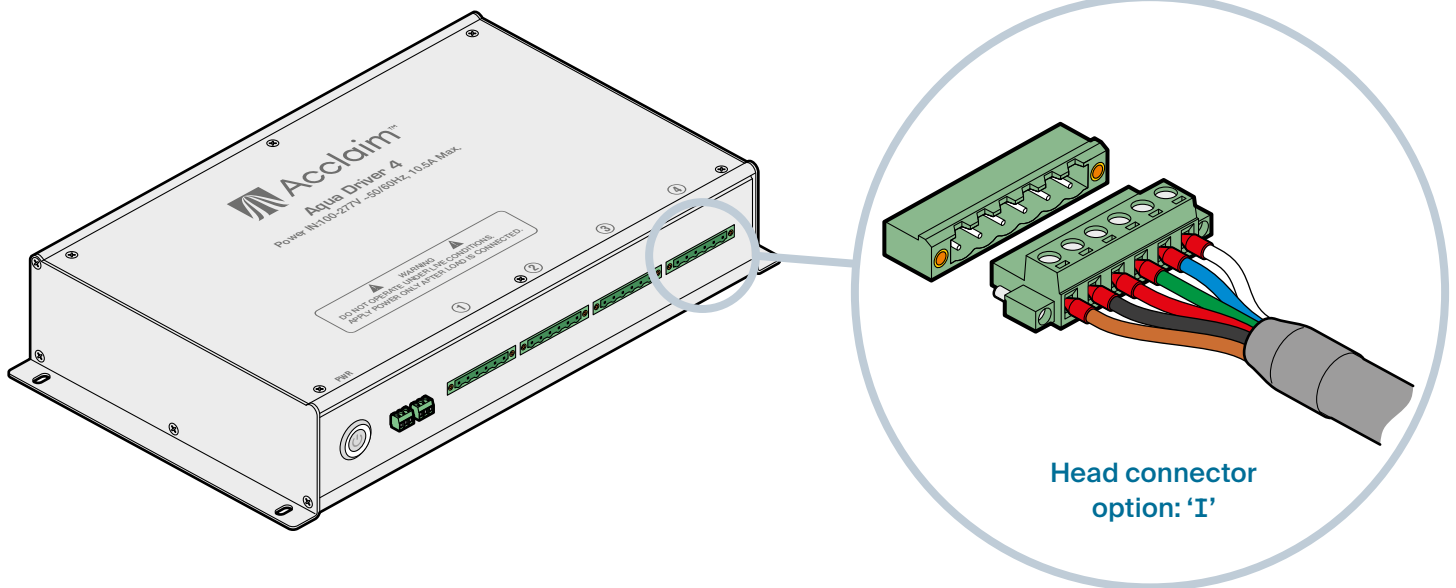


PROJECT	FIRM	ORDER #	TYPE	QTY
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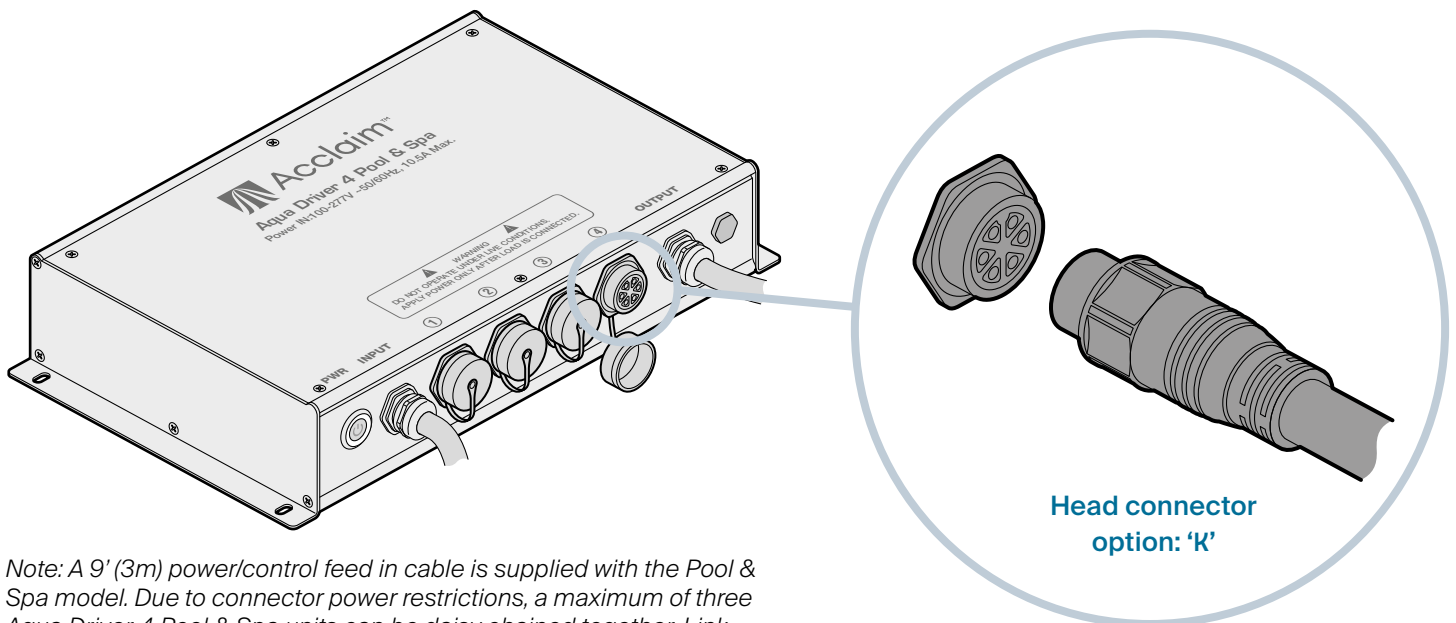
Head connector types

The two variants of Aqua Driver 4 use differing output sockets to suit the mounting locations of the driver units. Accordingly, each Aqua Drum head can be ordered with corresponding plugs to match the chosen driver variant: Standard (head connector option 'I') or Pool & Spa (head connector option 'K').

Aqua Driver 4 - Standard: terminal block head connectors



Aqua Driver 4 - Pool & Spa: IP68 head connectors



Note: A 9' (3m) power/control feed in cable is supplied with the Pool & Spa model. Due to connector power restrictions, a maximum of three Aqua Driver 4 Pool & Spa units can be daisy chained together. Link cables and terminators are available for use with the output connection.

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CCT Select color mixing

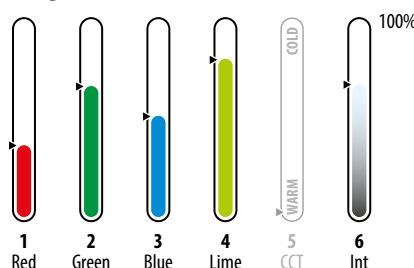
Aqua Drum E3 fixtures fitted with RGBL (QL) emitters allow you to mix saturated and pastel colors in addition to calling up any color temperature of white (using a dedicated DMX control channel). The special mode uses six channels to provide full control over the RGBL emitters.

Mixing saturated and pastel colors individually

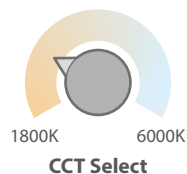
Use DMX channels 1 to 4 to mix the required shade.

Use channel 6 to determine the overall output intensity.

Note: Channel 5 must be at zero.



Choosing a temperature of white

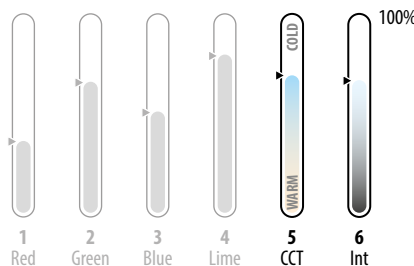


Use DMX channel 5 to select the required correlated color temperature (CCT) ranging from 1800K (at 1%) to 6000K+ (at 100%).

Use channel 6 to control the overall output intensity.

Note: When channel 5 receives any value other than zero, the input values of channels 1 to 4 will be ignored.

Note: A full list of DMX values for each color temperature are provided in the Aqua Series gen 3 user guide.

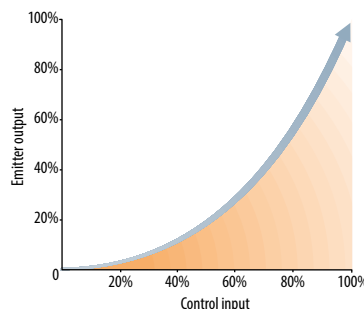


DMX value	Color temp
0	Off
001-004	1800K
005-008	1900K
009-012	2000K
013-016	2100K
017-020	2200K
021-024	2300K
025-028	2400K
029-032	2500K
033-036	2600K
037-040	2700K
041-044	2800K
...	...

Single channel tungsten emulation

(Ai Dim to Warm)

In addition to the multi-channel control modes mentioned above, Aqua Drum E3 fixtures fitted with RGBL (QL) emitters also offer a simple one channel option. As the single channel is raised from zero to 100% and back to zero, the fixture responds with combined graduations of both intensity and color temperature to skilfully emulate the dimming response of a typical high-output tungsten source.



Ai Dim
technology

Alternate power modes

To obtain the best possible performance, every Aqua Driver 4 can be configured in either 'Dry' or 'Wet' modes to reflect the positioning of the connected fixtures. In 'Dry' or non-submerged mode, the fixtures are scaled by 50% to ensure their emitters remain within the correct thermal envelope. When fixtures are fully submerged then 'Wet' mode can be invoked to remove the scaling and boost output. These changes are enacted by altering the pulse width modulation (PWM) patterns that control emitter dimming rather than adjusting the LED drive current; this ensures consistency in color mixing and color temperatures between modes.

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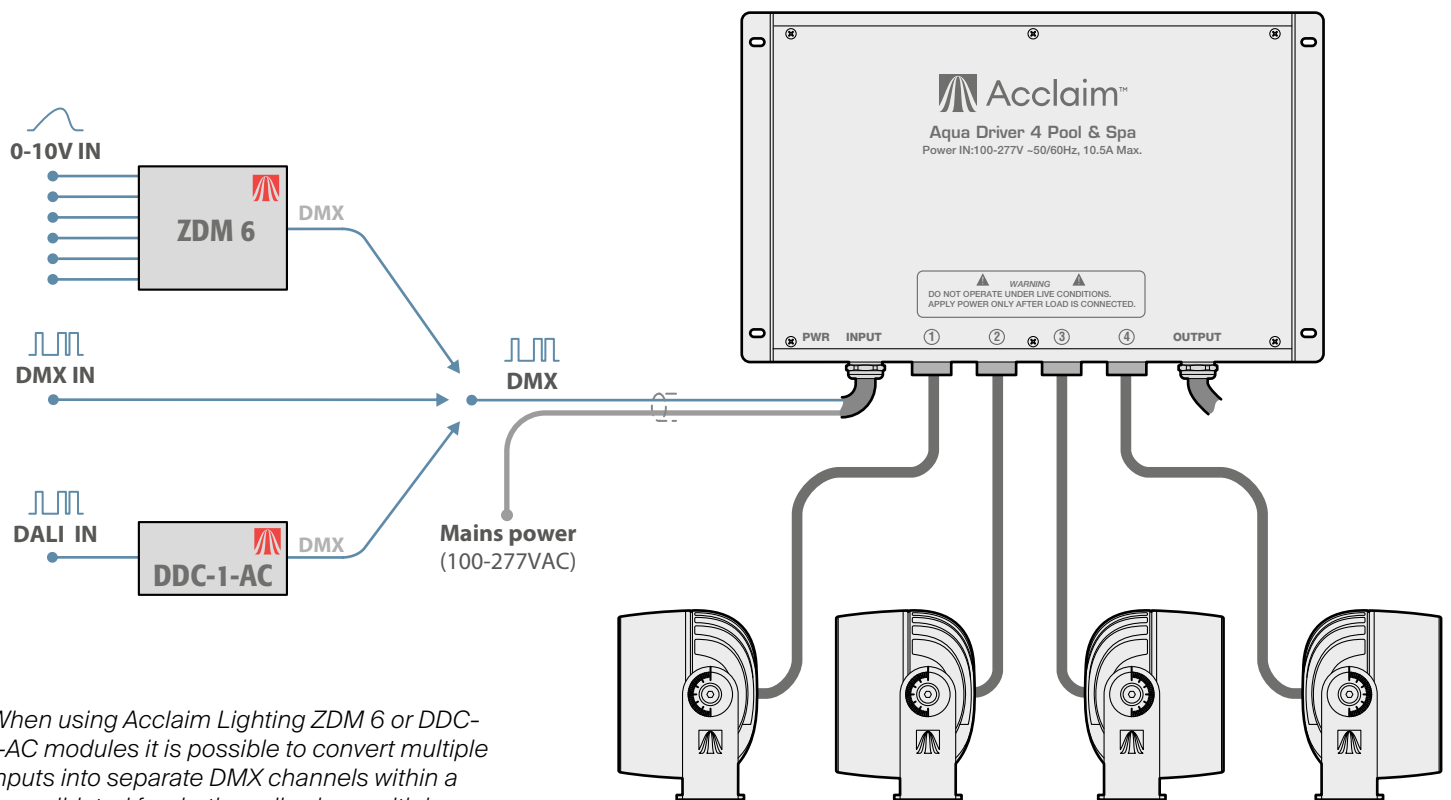
QTY

Alternative control inputs

Aqua Driver/Aqua Drum E3 fixtures use DMX as their native control method, however, it is possible to use other common control protocols when required, such as 0-10V (source or sink) or DALI.

Control inputs via converters

- DMX - connect a DMX input directly to the feed cable.
- 0-10V - use an Acclaim Lighting ZDM 6 to convert one or more analog control feeds into a combined DMX feed.
- DALI - use an Acclaim Lighting DDC-1-AC to convert one or more DALI channels into a combined DMX feed.



When using Acclaim Lighting ZDM 6 or DDC-1-AC modules it is possible to convert multiple inputs into separate DMX channels within a consolidated feed - thus allowing multiple fixtures to be uniquely addressed. The ZDM 6 can convert up to six 0-10V inputs into DMX channels, whereas the DDC-1-AC can convert a maximum of 64 DALI channels (although large numbers of channels are not recommended due to the timing limitations of the DALI standard).

Note: Mixtures of Aqua-series heads can be mixed on a single Aqua Driver 4, e.g. Aqua Drum E3, Aqua Drum S3, Aqua Linear 1' and Aqua Linear 4' can all be driven from the same unit if required. All heads connected to the driver must have the same emitter options.

For full installation details, please refer to the **user guide**, available for free download here:

