

DualBend 
technology

Flex Graze HO SC™

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Introduction

Welcome

Flex Graze HO SC™ fixtures provide the perfect fit wherever your world refuses to lie flat. Unlike most linear fixtures, which are strictly limited to bend only along one axis, Flex Graze HO SC can achieve both horizontal and vertical bends to precisely match complex profiles.

Thanks to our careful binning policies, consistent color temperature rendering (3-step MacAdam ellipse) is assured not only across the full length of every run, but also between multiple batches. Flex Graze HO SC fixtures also benefit from an industry-leading ten year limited warranty to ensure complete confidence.

A range of driver options are available to allow control via DMX, 0-10V or DALI. Alternatively, Flex Graze HO SC runs can also be integrated directly into mains-level dimming systems using our reverse/forward phase MLE dimmer drivers.

Safety

- When fixtures are mounted off-ground, ensure they are securely fitted to an appropriate mounting surface.
- Ensure that the power input is supplied from a correctly fused, earthed and environmentally protected location.

Maintenance

CAUTION: *Always isolate mains power before starting maintenance operations.*

- Ensure that all mounting (and device) screws/bolts are fully tight and free of corrosion.
- Ensure there is no deformation to the housing, lenses or fixing points.
- Check that all power supply cables are free from physical damage or material fatigue.
- Use only genuine spare parts supplied by Acclaim Lighting.

Cleaning

- Use a moist, lint-free cloth when cleaning each fixture.
- Never use alcohol or solvents.

Installation

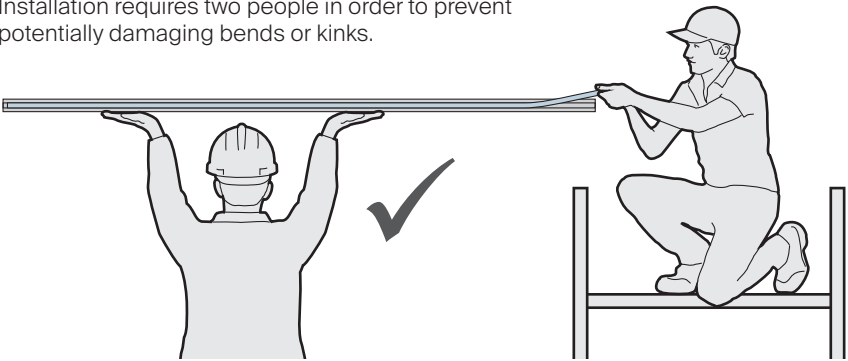
Take great care to avoid damage during installation

Flex Tubes will provide many years of reliable service, however, they contain delicate components which are prone to damage if handled incorrectly or treated roughly. Please read and follow all of the directions given on these four pages before attempting to install any Flex Tube:

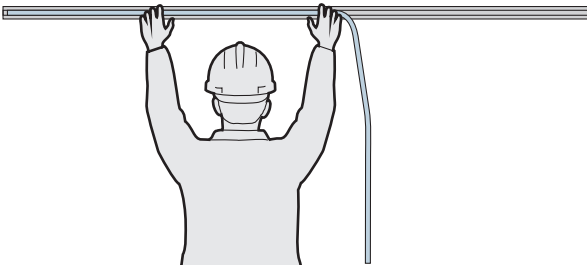
- **Two person install** - see below.
- **Bending limits** - see page 4.
- **Cable care** - see page 5.
- **Avoid aligning with expansion joints** - see page 6.

Two person install

- Installation requires two people in order to prevent potentially damaging bends or kinks.

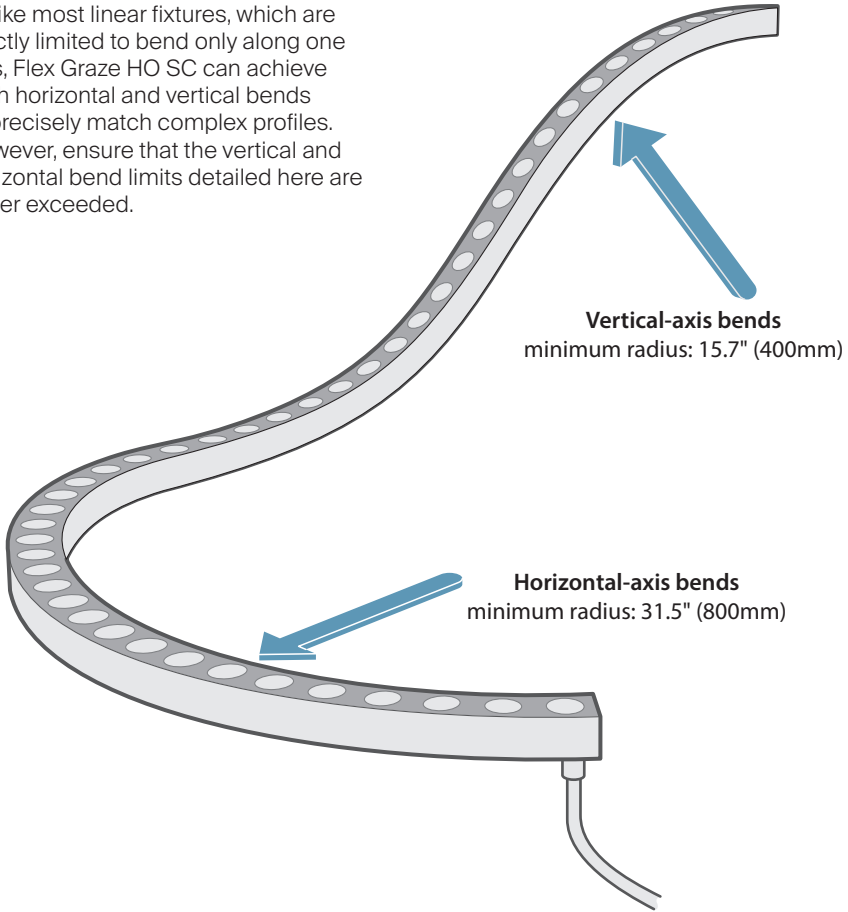


- Do not attempt to install Flex Graze HO SC into the mount channel alone or allow the strip to bend beyond the stated limits - see page 4.



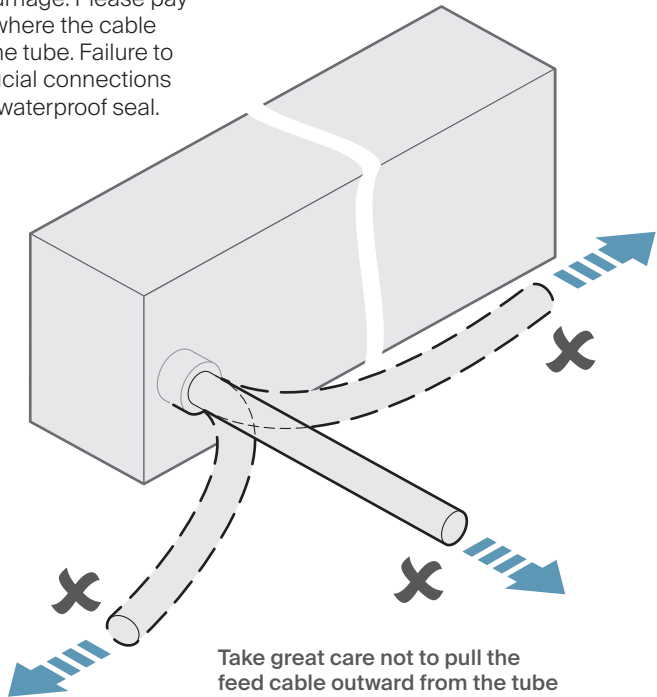
Bending limits

Unlike most linear fixtures, which are strictly limited to bend only along one axis, Flex Graze HO SC can achieve both horizontal and vertical bends to precisely match complex profiles. However, ensure that the vertical and horizontal bend limits detailed here are never exceeded.



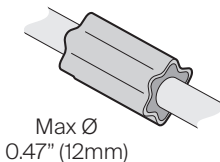
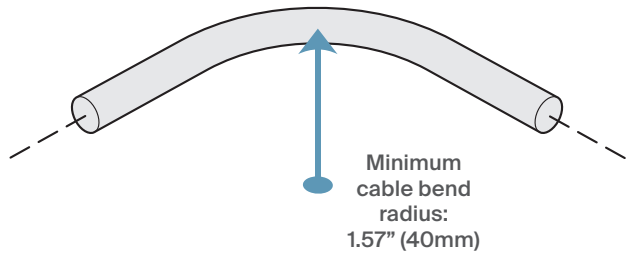
Cable care

Treat the Flex Graze HO SC feed cable with care to avoid damage. Please pay particular attention where the cable enters the body of the tube. Failure to do so may break crucial connections and/or damage the waterproof seal.



Take great care not to pull the feed cable outward from the tube or bend it sharply in any direction.

Do not subject the feed cable to a bend radius less than 1.57" (40mm) anywhere along its length.

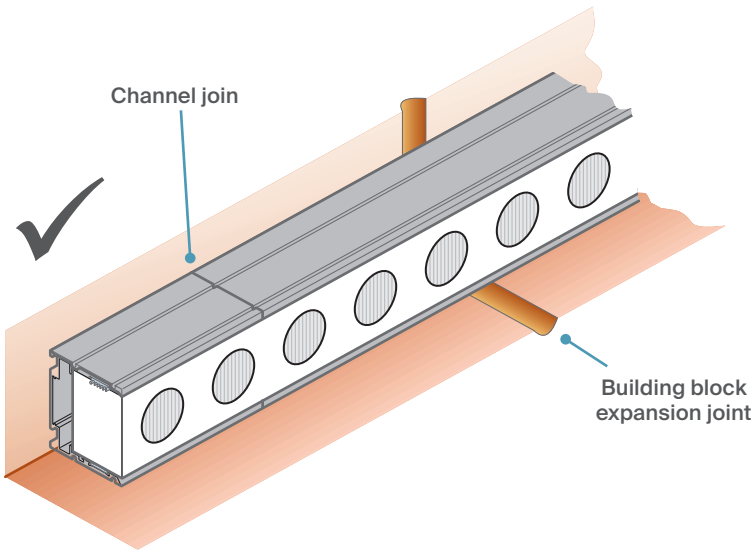
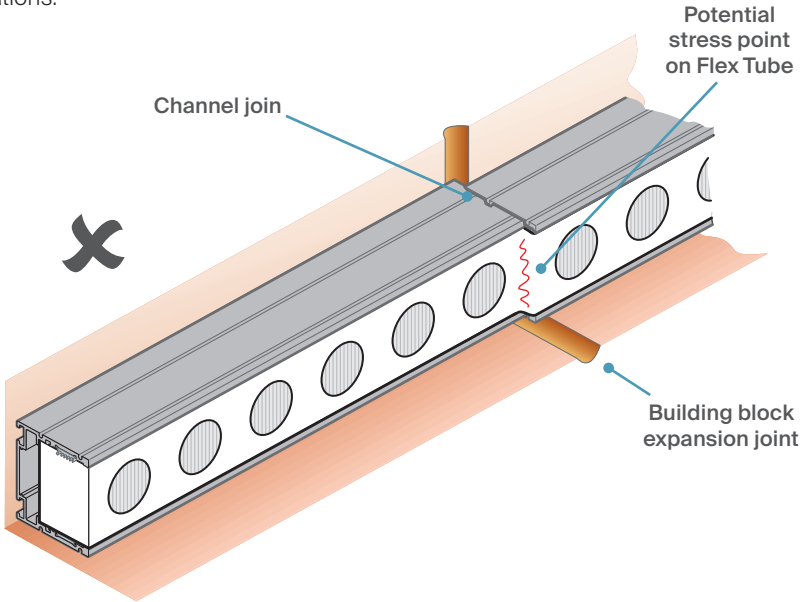


Max Ø
0.47" (12mm)

Note: Each feed cable has a metal-encased joint roughly 5" (128mm) from the inlet, which must not be removed.

Avoid aligning with expansion joints

If a mounting surface has expansion joints (such as seams between building blocks), ensure that none of the joints between successive Flex Tube channels align near any of the expansion joints. This will avoid placing potential stress points on the Flex Tube within the channel at the join locations.

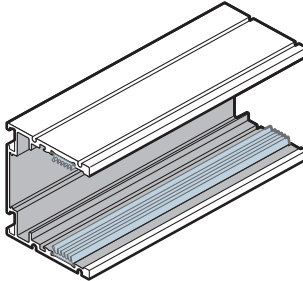


Mounting channel kits

Straight run mounting

These kits are used to mount straight runs of Flex Graze HO SC strips onto solid surfaces. For dimensions, see “Dimensions - Straight runs” on page 17.

Kit contents



Mount channel for straight runs
(1.96"/50mm, 1.64'/500mm,
3.28'/1m or 6.56'/2m lengths)



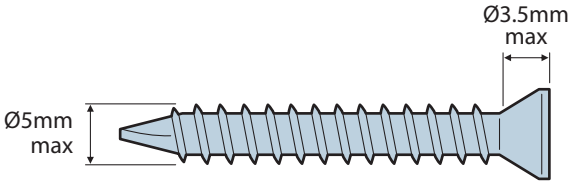
Stainless steel
countersunk
mount screw(s)
(1, 5 or 10 no.
depending on
channel length)

To use a mounting channel kit

- 1 Use appropriate screws and fixings for the intended mounting surface.

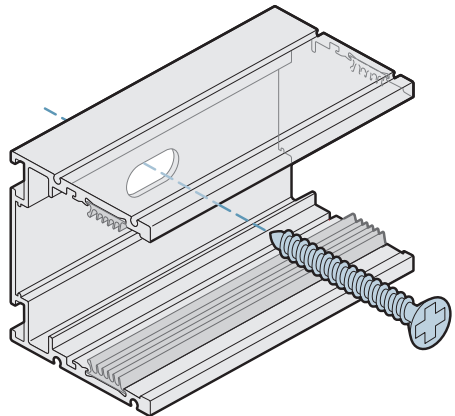
Each channel is supplied with an appropriate number of countersunk screws; these (M3.5 x 25) screws are best suited to mounting on wooden or metal plate surfaces. The supplied screw(s) may also be suitable for other surfaces in combination with wall plugs.

If you need to source alternative screws, be aware that the limited space within the mount channel restricts the screws used to the following dimensions:



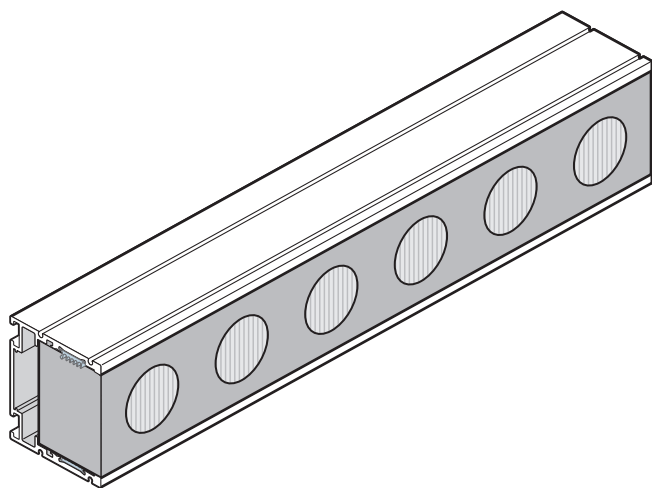
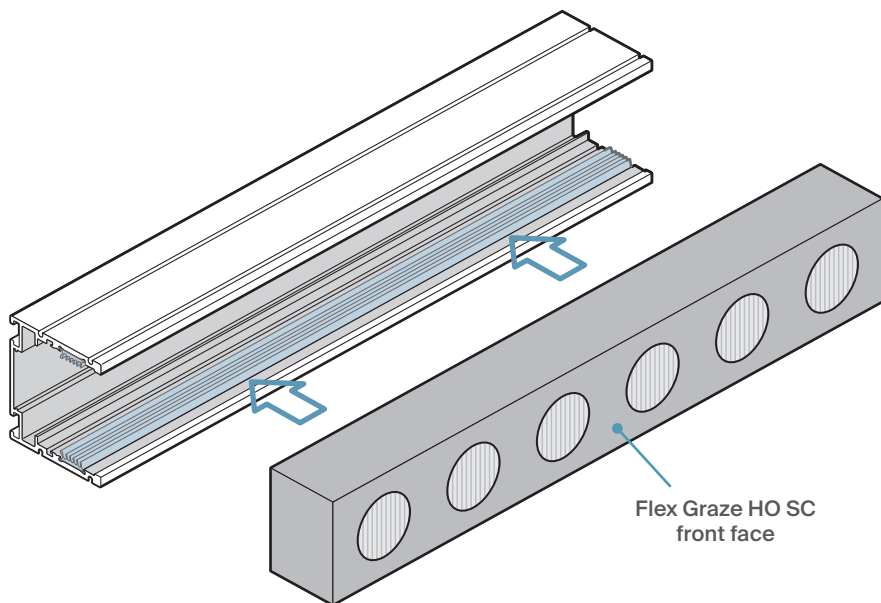
- 2 Attach the mount channel to the intended surface, taking all appropriate precautions as you do so.

- 1.96" (50mm) mounts have one slotted hole,
- 1.64' (500mm) mounts have two slotted holes,
- 3.28' (1 meter) mounts have five slotted holes, spaced 7.87" (200mm) apart,
- 6.56' (2 meter) mounts have ten slotted holes, spaced 7.87" (200mm) apart.



continued

- 3 Push the Flex Graze HO SC (front face outwards) fully into the mount channel until it engages with the silicone seals.

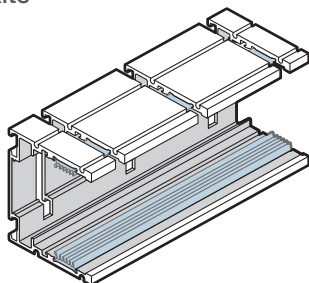


- If you should need to remove the Flex Graze HO SC, gently pull it out from the mount channel, taking care not to twist the strip.

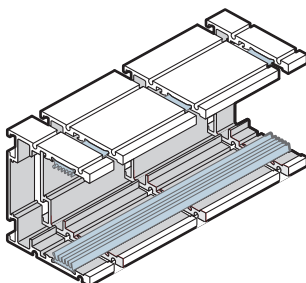
Flexible mounting

Two types of flexible channels are available that allow Flex Graze HO SC strips to be shaped in either the horizontal or vertical axes. For dimensions, see “Dimensions - Flexible mounting channels” on page 18.

Kits



Flexible mount channel for
horizontal-axis bends
(3.28'/1m or 6.56'/2m lengths)



Flexible mount channel for
vertical-axis bends
(3.28'/1m or 6.56'/2m lengths)



Stainless steel
countersunk
mount screw(s)
(5 or 10 no.
depending on
channel length)

To use a flexible mounting channel kit

- 1 Use appropriate screws and fixings for the intended mounting surface.

Each channel is supplied with an appropriate number of countersunk screws; these (M3.5 x 25) screws are best suited to mounting on wooden or metal plate surfaces. The supplied screw(s) may also be suitable for other surfaces in combination with wall plugs (see page 7). Mounting holes ($\varnothing 0.2 \times 0.39$ "/ $\varnothing 5 \times 10$ mm) are spaced as follows:

- Channel for horizontal bends: every 5.47" (139mm) - on every fourth segment.
- Channel for vertical bends: every 9.65" (245mm) - on every seventh segment.

- 2 Attach the mount channel to the intended surface to carefully form the required shape, taking all appropriate precautions as you do so. As bends are applied to the channel, ensure that the silicone seal on the segmented side is free to move along the channel. Once the channel is fixed in place, the excess silicone seal at each end can be trimmed to size. Observe the minimum bend radii of the Flex Graze:

- Minimum bend radius on the horizontal-axis: 31.5" (800mm).
- Minimum bend radius on the vertical-axis: 15.7" (400mm).

- 3 Push the Flex Graze HO SC (front face outwards) fully into the mount channel until it engages with the silicone seals.

Connecting and controlling

Flex Graze HO SC strips operate at 24VDC and each strip is supplied with an injection molded feed cable with bare tails (or optional IP68-rated connectors plus bare tails). See page 15 for full power requirements.

Link cable guidelines

Connection cables (not supplied) used to link Flex Graze HO SC strips to the power/driver unit should follow these guidelines:

- Up to 40 feet (12m) 18 AWG (0.823mm²)
- Up to 100 feet (30.5m) 14 AWG (2.081mm²)
- Up to 180 feet (55m) 12 AWG (3.309mm²)

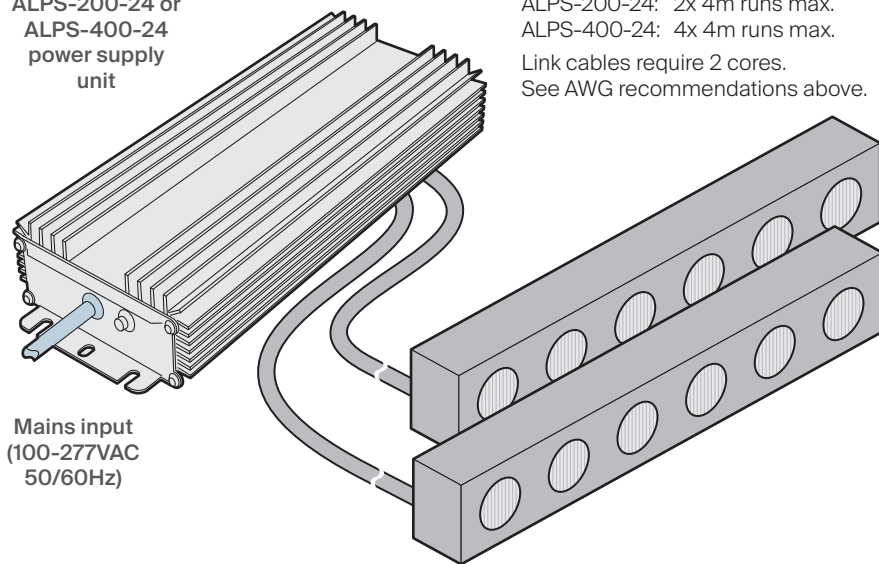
In all cases, ensure that the voltage drop at the fixture end of the link cable is no greater than 8% (1.92V) of the original 24VDC supply.

Non-Dim

Use Acclaim Lighting ALPS-96-24, ALPS-200-24 or ALPS-400-24 power supplies.

ALPS-96-24,
ALPS-200-24 or
ALPS-400-24
power supply
unit

ALPS-96-24: 1x 4m run maximum
ALPS-200-24: 2x 4m runs max.
ALPS-400-24: 4x 4m runs max.
Link cables require 2 cores.
See AWG recommendations above.



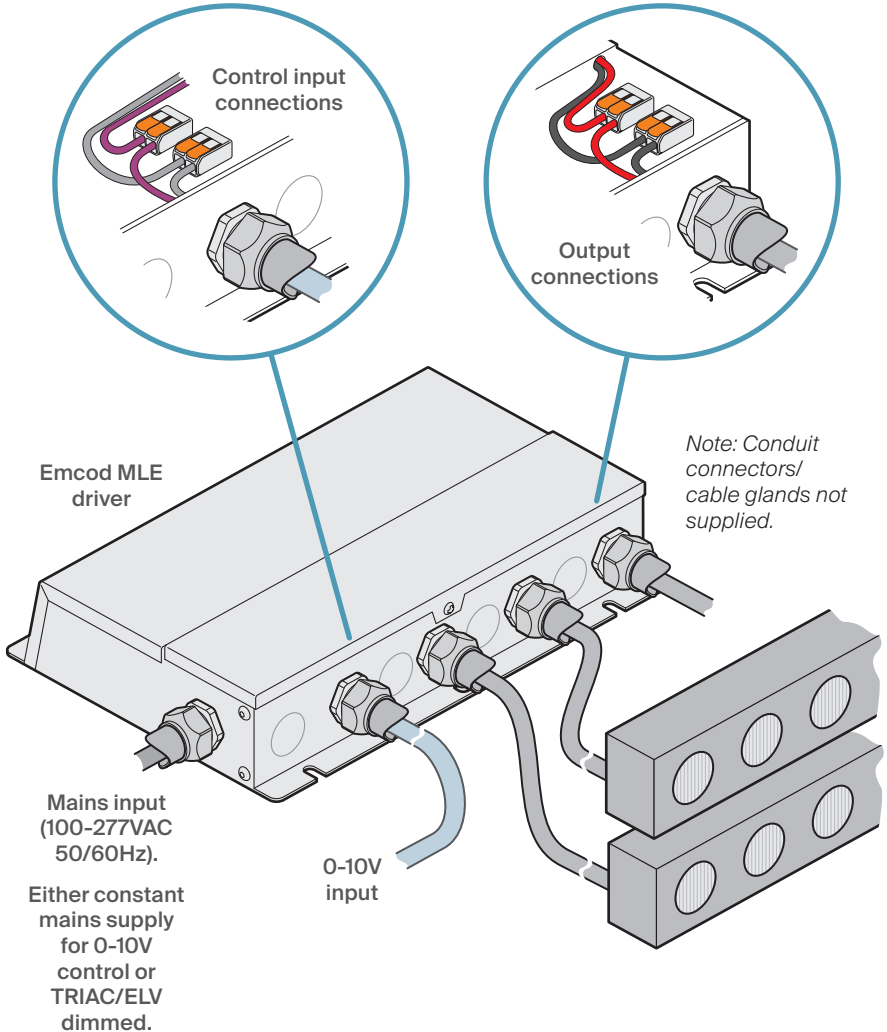
Dimmed (0-10V or TRIAC/ELV control)

These drivers provide 24VDC constant voltage PWM output in response to either a low voltage control input or dimmed mains source:

- A 0-10V (source or sink) analog dimming control input plus a constant mains supply, or
- A TRIAC (forward phase) or ELV (reverse phase) dimmed mains feed.

Link cables require 2 cores. See cable recommendations on page 10. A maximum of 16.4' (5m) can be driven per output line on each MLE driver:

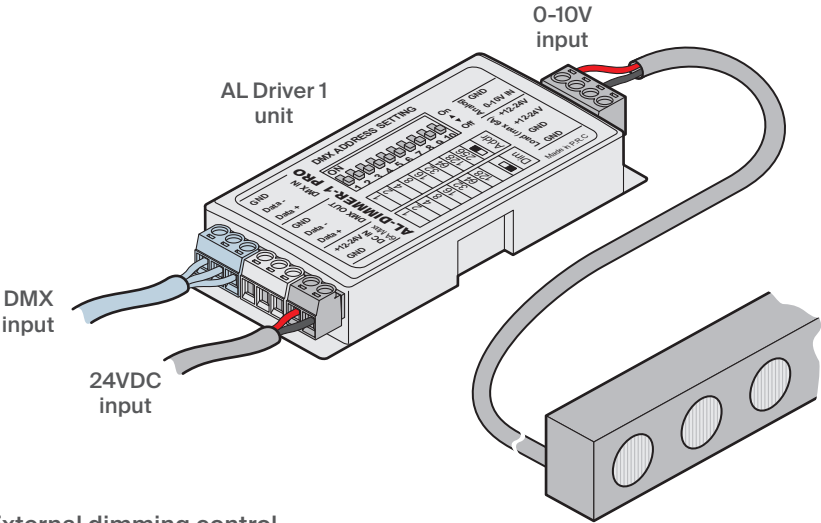
- MLE96 [part #: MLE96-24DC-UD] 1x 13.1' (4m) run maximum
- MLE192 [part #: MLE192-24DC-UD] 2x 13.1' (4m) runs maximum
- MLE288 [part #: MLE288-24DC-UD] 3x 13.1' (4m) runs maximum



Dimmed (0-10V or DMX control)

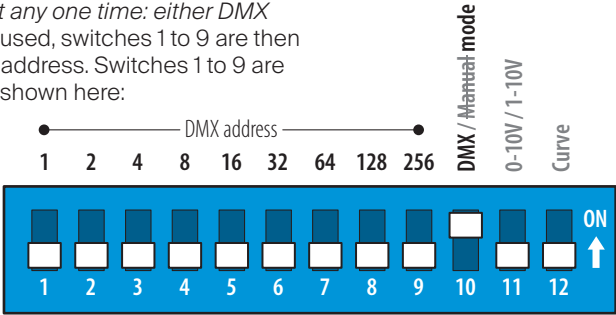
Use Acclaim Lighting AL Driver 1 [part #: ALD001] + ALPS-96-24 power supply.

The AL Driver 1 module controls one run of Flex Graze HO SC, either using an external DMX digital signal, an external 0-10V/1-10V analog signal or using standalone intensity mixes. The AL Driver 1 is a constant voltage device and needs to operate from a 24VDC power supply (5A maximum).



External dimming control

To select external control, ensure that switch 10 is ON.
*Note: The DMX and analog (0-10V/1-10V) inputs are both active in this mode, so it is important that only one set of inputs are connected at any one time: either DMX **OR** analog. When DMX is used, switches 1 to 9 are then used to set the DMX start address. Switches 1 to 9 are 'weighted' with a value as shown here:*



Note: Numerous apps are available to assist you with configuring the correct switch combinations for a given DMX address.

0-10V / 1-10V selection

Using switch 11, you can choose between 0-10V current source (active) [sw11-OFF] or 1-10V current sink (passive) [sw11-ON] control inputs. The primary difference between the two schemes lies with where the control voltage should be generated: **Current source** requires the controlling device to provide (source) the control voltage; whereas **Current sink** mandates that the controlled fixture must provide the voltage.

Optional curve smoothing

When switch 12 is set to ON, additional intermediate steps are added to the response curve to help eradicate any visible stepping between the usual 256 (8-bit) dimming levels.

Dimmed (0-10V, DALI or DMX control)

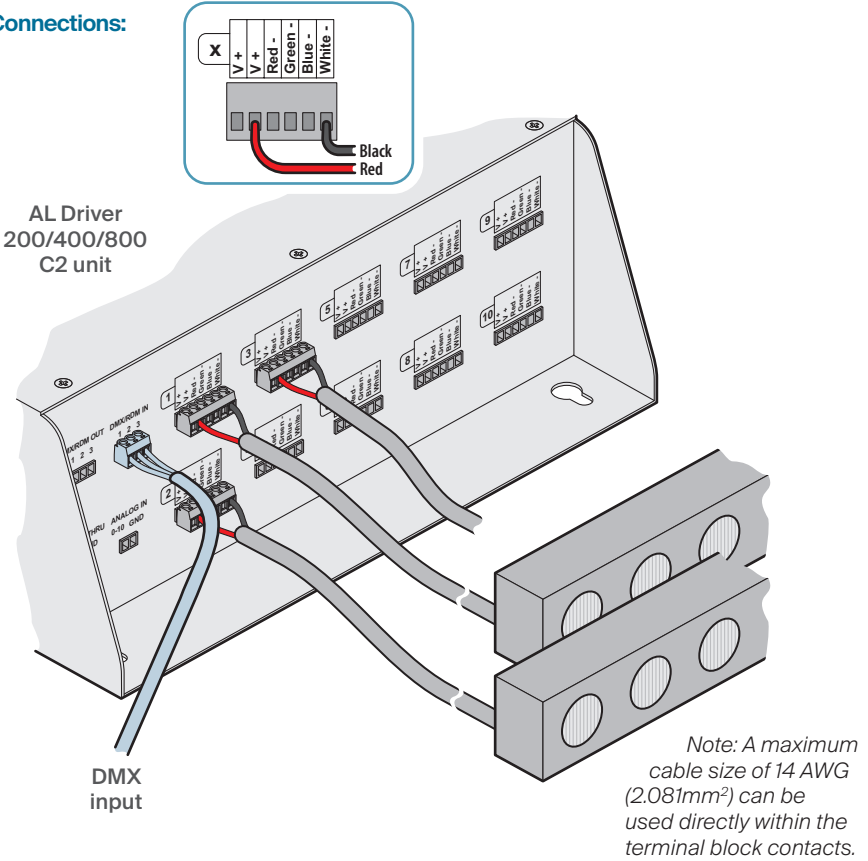
Four ports: [part #: AL Driver 200 C2]

Six ports: [part #: AL Driver 400 C2] or

Ten ports: [part #: AL Driver 800 C2].

The full size AL Drivers provide multi-channel dimming control for Flex Graze HO SC strips. All three models are connected and configured in similar ways; it is the number of ports and total overall current capacity that varies.

Connections:



On all models, each port can support a maximum of **6.6A**, however, the maximum overall load across all ports must not exceed the following:

	AL Driver 200 C2	AL Driver 400 C2	AL Driver 800 C2
Maximum overall current	8A	16.5A	33A
Maximum 13.1' (4m) runs	2 runs	4 runs	8 runs

Note: Flex Graze HO SC runs are 13.1 feet (4m) maximum and are rated at 96W (4A @ 24VDC).






Further information

Troubleshooting

No light output is visible when expected.

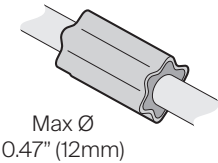
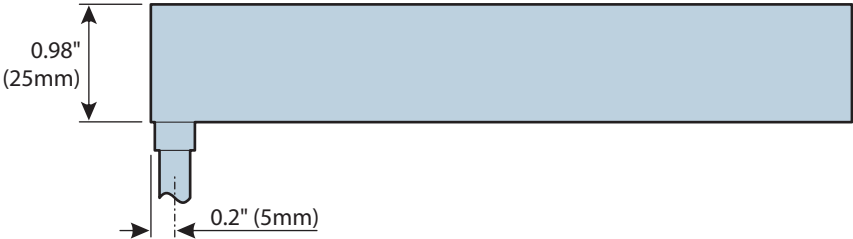
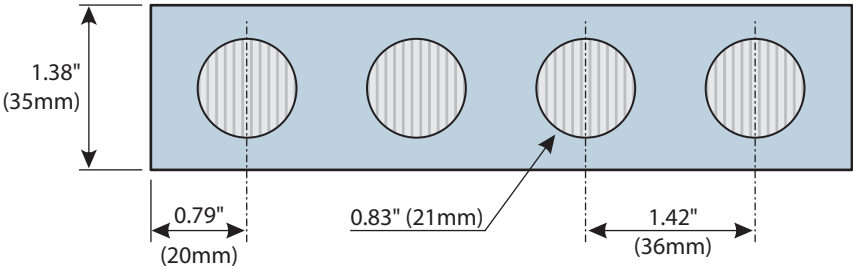
- Check that power is correctly applied to the fixture and that there is no damage to the power input cord.
- Check that the connections to the feed cable have the correct polarity.
- Check that the DMX address set within the driver module matches that being output by the controlling source device.

Specifications

Emitters	2700K, 3000K, 3500K, 4000K or 5700K
Optics	12° x 12°, 15° x 25°, 25° x 25°, 15° x 40° or 15° x 60°
Output	Up to 737 lumens per foot (80 CRI)
Lumen maintenance	L ₇₀ 80,000 hours (@ 25° C)
Control	Low voltage control via optional AL Driver: DMX (0-100%), DALI (0-100%) or 0-10V (1-100%) Mains-level control via optional MLE driver: TRIAC (forward phase) or ELV (reverse phase) - (1-100%)
Operating voltage	24VDC
Power consumption	7.3W per linear foot (24W per linear meter)
Connection	16.4' (5m) injection molded feed cable with bare tails.
Fixture lengths	Built to order lengths from 9.84" (250mm) to 13.1' (4m). Section points every 9.84" (250mm)
Minimum bends	Vertical bend radius: 15.7" (400mm). Horizontal bend radius: 31.5" (800mm)
Mounting	Press-fit aluminum channels in various lengths: 2" (50mm) to 6.5' (2m)
Material	UV resistant silicone
Finish	White or black
Ambient temp. range	-40° F to 131° F (-40° C to 55° C)
Ingress protection	IP67, wet location and temporary submersion (1 meter for up to 1 hour)
Impact protection	IK10, protection against 20 joule impact (40cm distance)
Vibration protection	ANSI C136.31, 3G-rated for high vibration and bridge applications
Warranty	5 years, limited
Weight	2.4 lbs (1.1 kg)
Certifications	    

** UL approval limits submersible installation to non-human occupied and freshwater locations only. All cables must be landed in environmentally suitable junction boxes.*

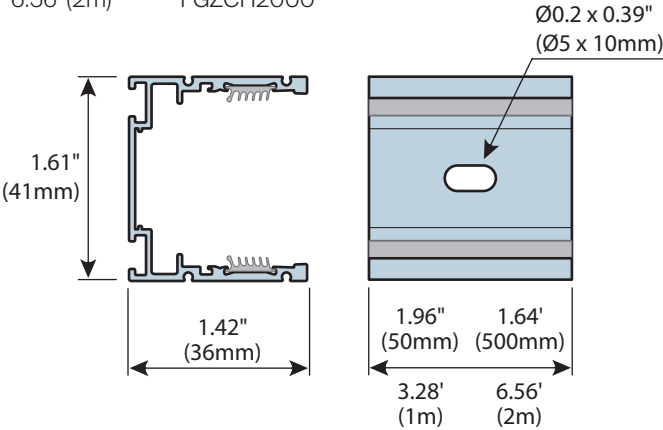
Dimensions - Flex Graze HO SC



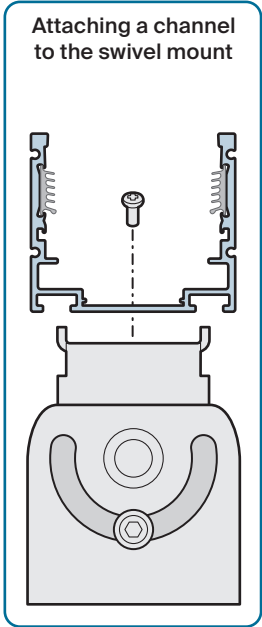
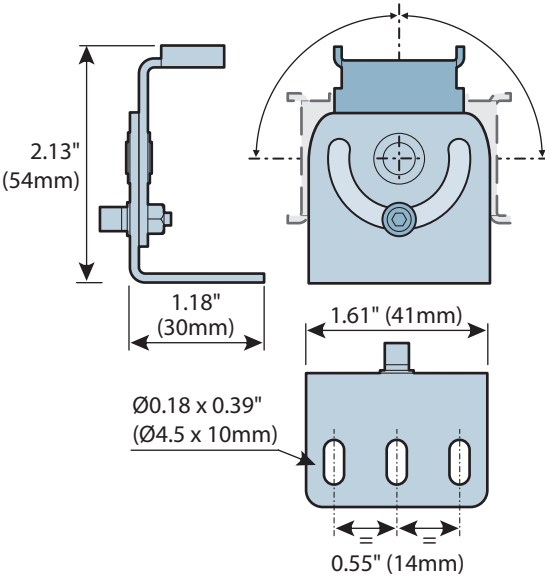
Note: Each feed cable has a metal-encased joint roughly 5" (128mm) from the inlet, which must not be removed.

Dimensions - Straight runs

- 1.96" (50mm) FGZCH50
- 1.64' (500mm) FGZCH500
- 3.28' (1m) FGZCH1000
- 6.56' (2m) FGZCH2000



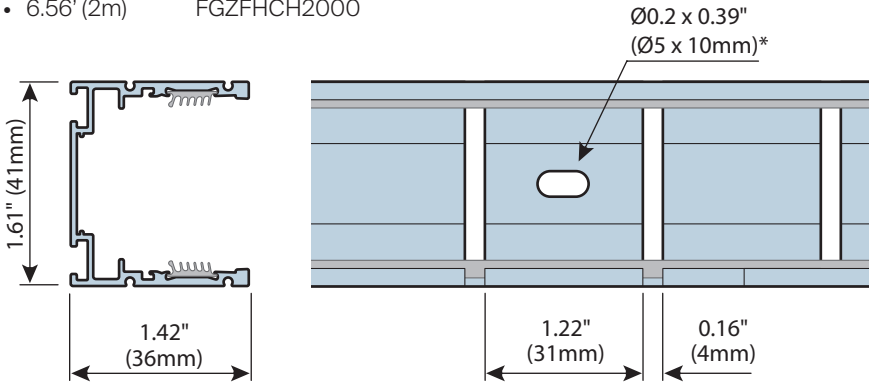
Dimensions - Swivel mount



Dimensions - Flexible mounting channels

To support horizontal bends

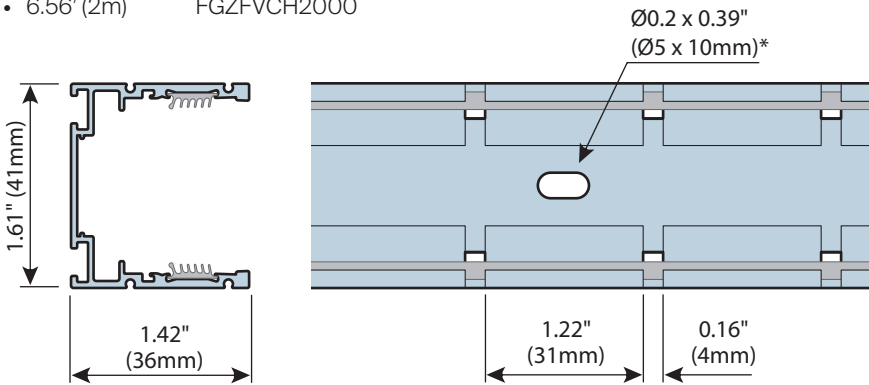
- 3.28' (1m) FGZFHCH1000
- 6.56' (2m) FGZFHCH2000



**Holes repeated at 5.47" (139mm) intervals*

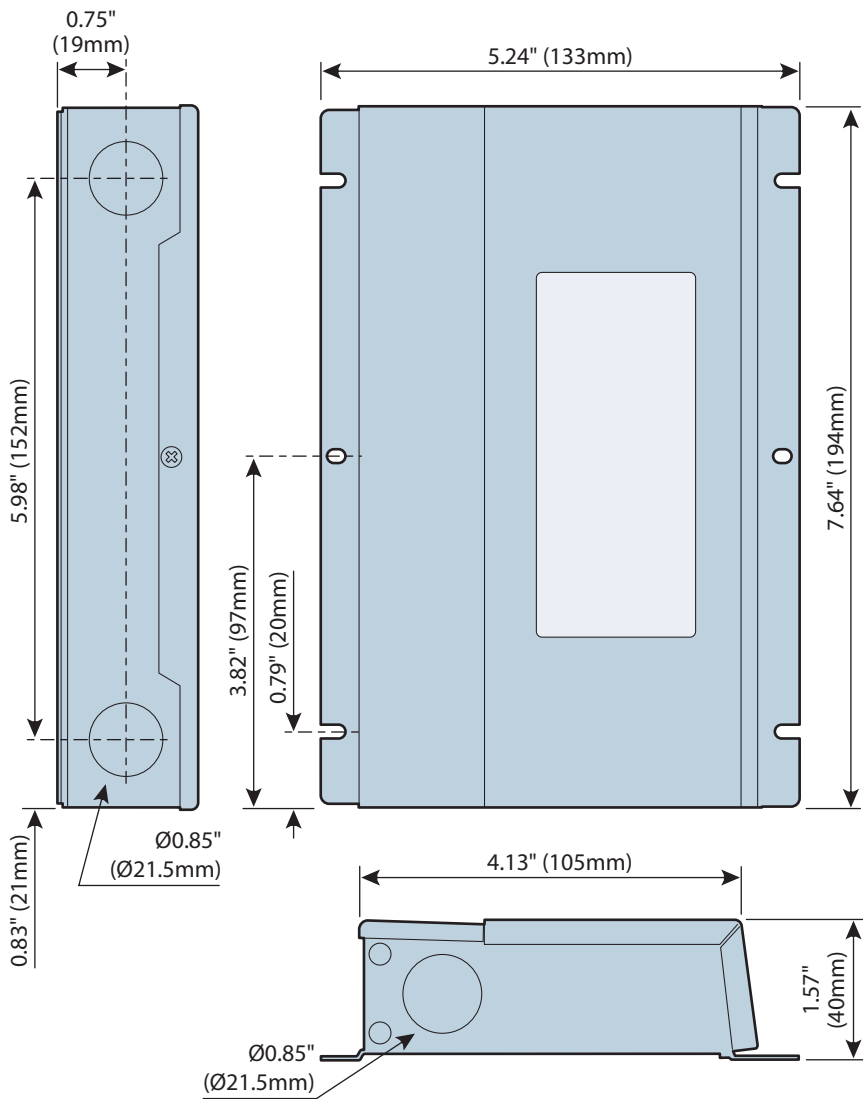
To support vertical bends

- 3.28' (1m) FGZFVCH1000
- 6.56' (2m) FGZFVCH2000



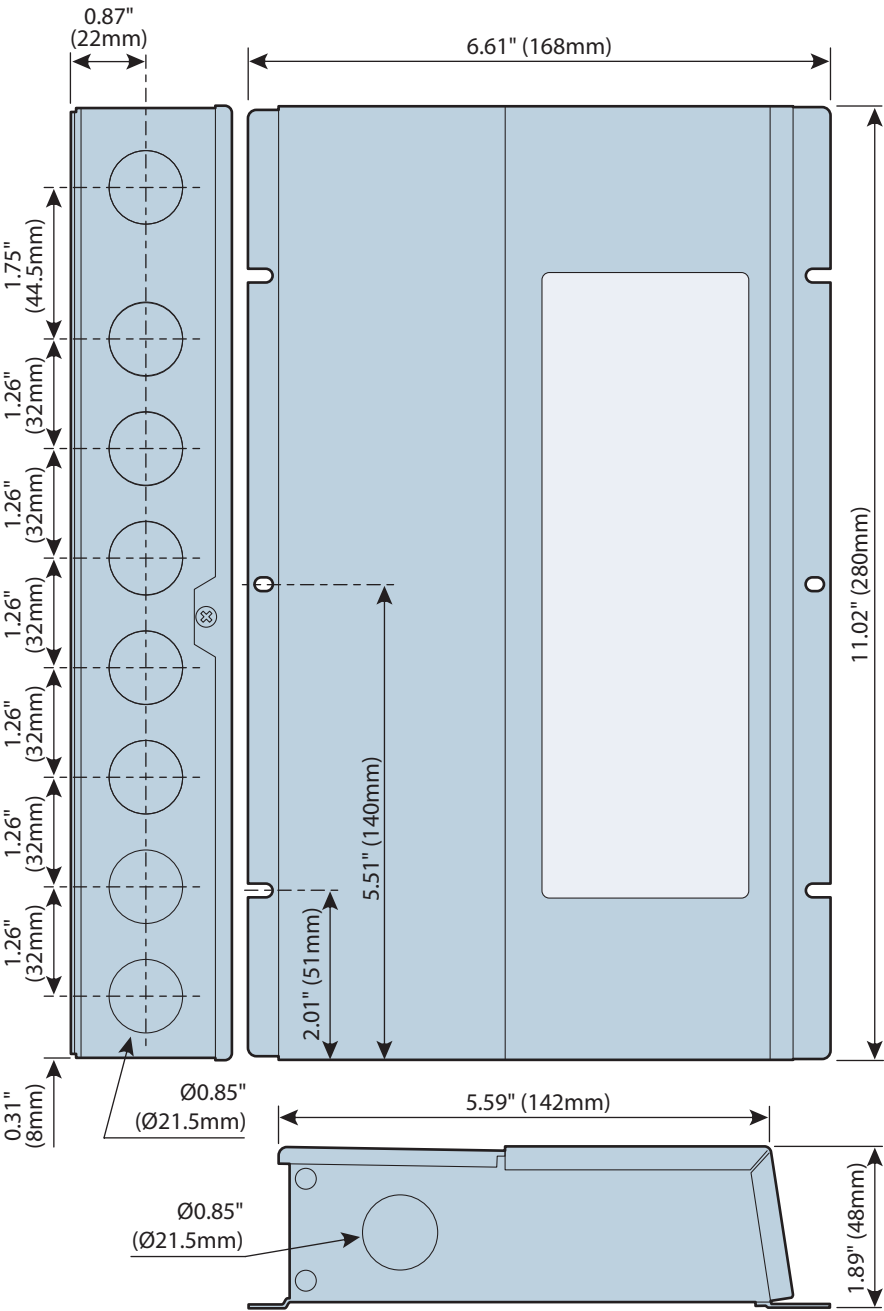
**Holes repeated at 9.65" (245mm) intervals*

Dimensions - MLE Driver 96



Weight: 3.1 lbs (1.4kg)

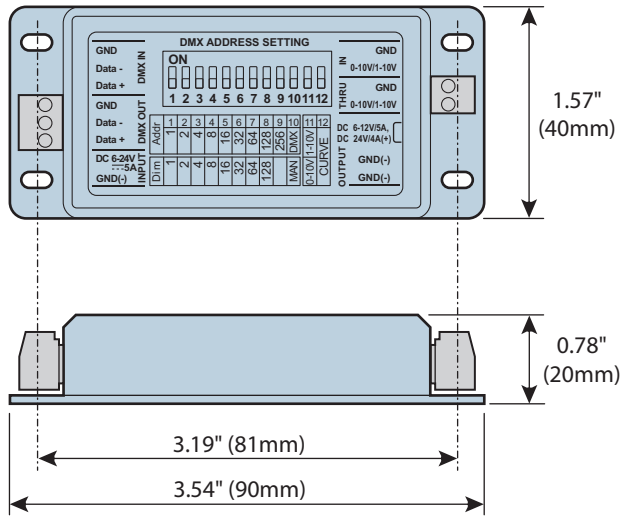
Dimensions - MLE Drivers 192 and 288



Weight (192): 5.5 lbs (2.5kg)

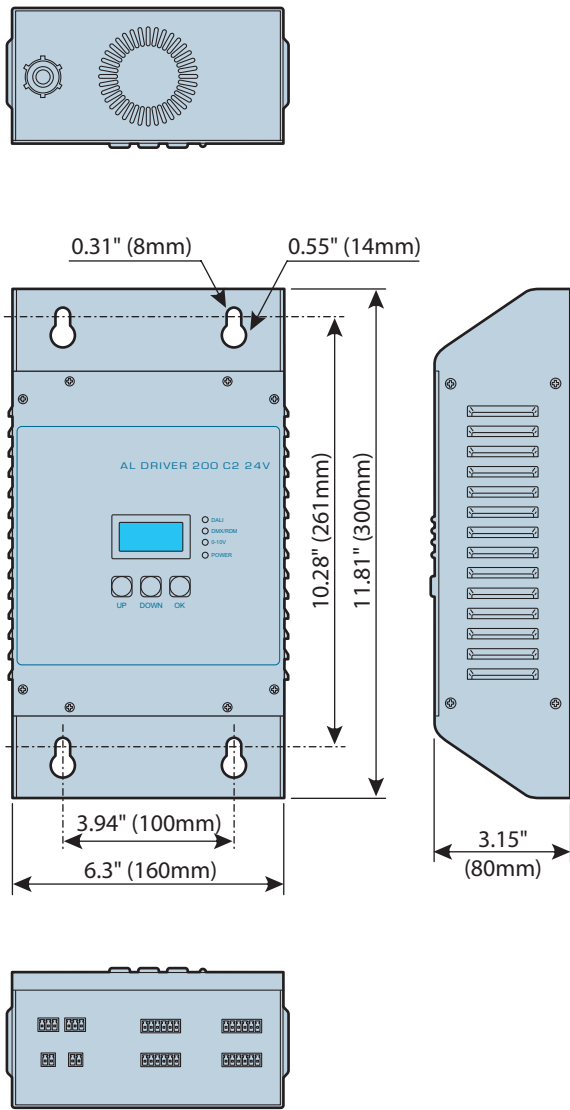
Weight (288): 5.7 lbs (2.6kg)

Dimensions - AL Driver 1



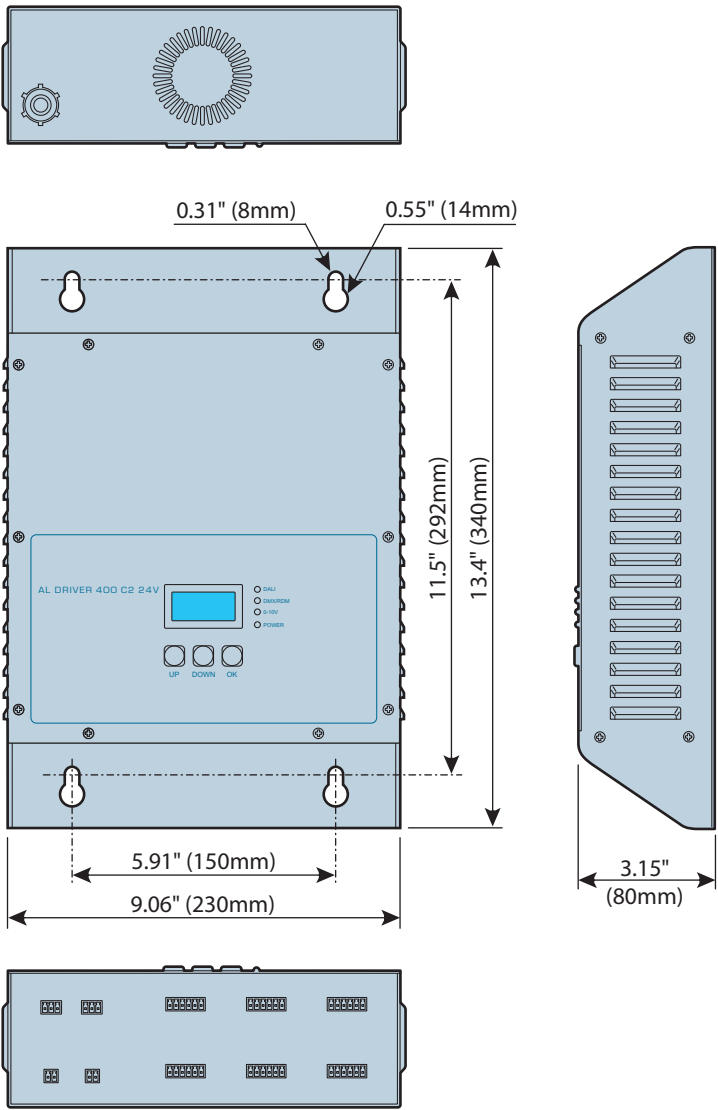
Weight: 0.1 lbs (45g)

Dimensions - AL Driver 200 C2



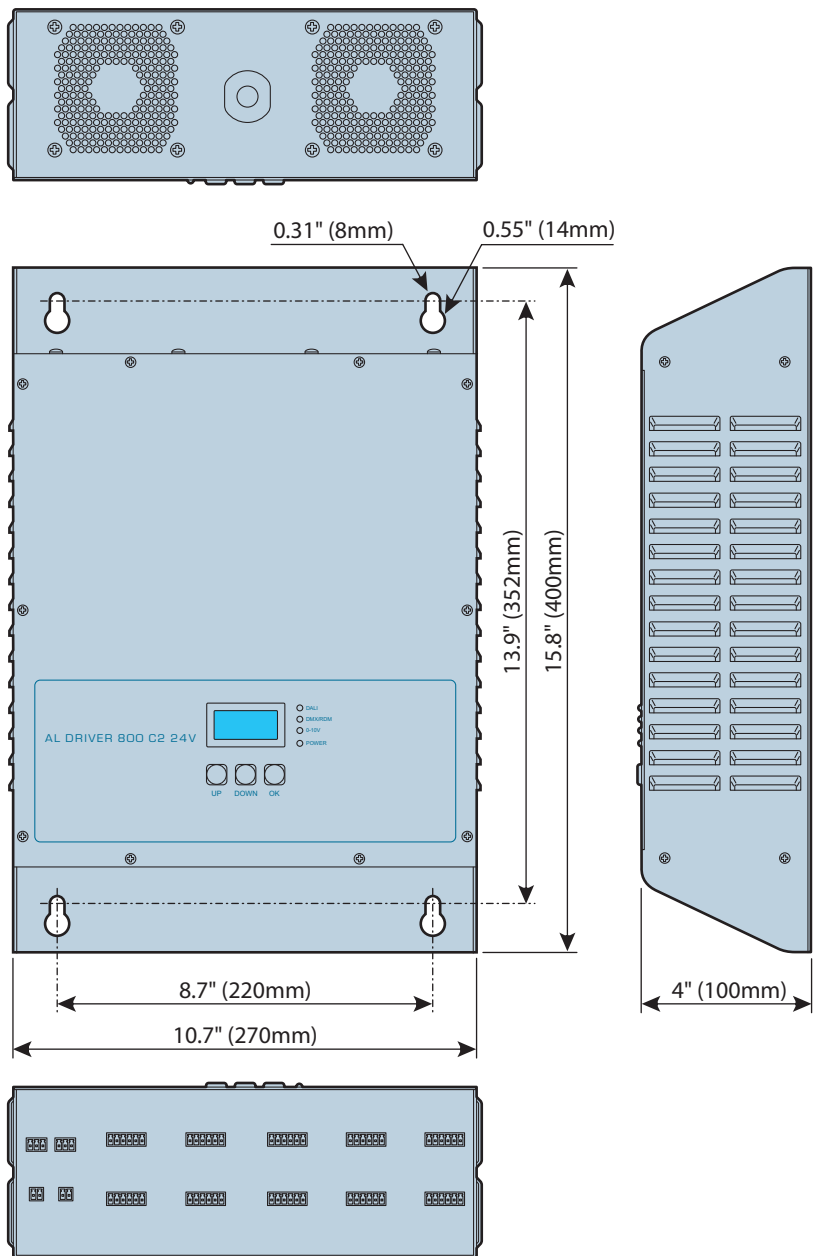
Weight: 5.29 lbs (2.4kg)

Dimensions - AL Driver 400 C2



Weight: 8.4 lbs (3.8kg)

Dimensions - AL Driver 800 C2



Weight: 14.4 lbs (6.5kg)

Limited product warranty

A. Acclaim Lighting™ hereby warrants, to the original purchaser, Acclaim Lighting finished products to be free of manufacturing defects in material and workmanship for a standard period of:

- Flex Graze: 10 years (3,652 days) from the date of purchase.
- Fixtures: 5 Years (1,825 days) from the date of purchase.
- Drivers, power supplies and accessories: 5 Years (1,825 days) from the date of purchase.
- Controllers: 2 Years (730 days) from the date of purchase.

It is the owner's responsibility to establish the date and place of purchase and warranty terms by acceptable evidence, at the time service is sought.

B. For warranty service, send the product only to the Acclaim factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Acclaim Lighting will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, Acclaim Lighting shall have no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof. Acclaim reserves the right to replace the item with same or similar product at its discretion.

C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which Acclaim concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Acclaim Lighting factory unless prior written authorization was issued to purchaser by Acclaim Lighting; if the product is damaged because not properly maintained as set forth in the instruction manual.

D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up nor do we guarantee as part of this warranty any lumen performance during period. Parts not covered by this warranty include: fuses, external power supplies, third party items not manufactured by Acclaim Lighting. During the period specified above, Acclaim Lighting will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Acclaim Lighting under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Acclaim Lighting. At no time will installation or re-installation or products labor or liability costs will be assumed by Acclaim Lighting. All products covered by this warranty were manufactured after January 1, 2012, and bear identifying serial number marks to that effect.

E. Acclaim Lighting reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products describe above. Except to the extent prohibited by applicable law, all implied warranties made by Acclaim Lighting in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired.

F. Marine or extreme weather location applications using Acclaim lighting products are subject to a 2 year limited warranty and Acclaim must be notified prior to delivery of units for such applications so that preventative treatment can be made to the products to ensure proper performance and product life with a special marine code coating / sealing process at an additional cost.

G. The consumer's and or dealer's sole remedy shall be such repair or replacement as is expressly provide above; and under no circumstances shall Acclaim Lighting be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product. This warranty is the only written warranty applicable to Acclaim Lighting products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

