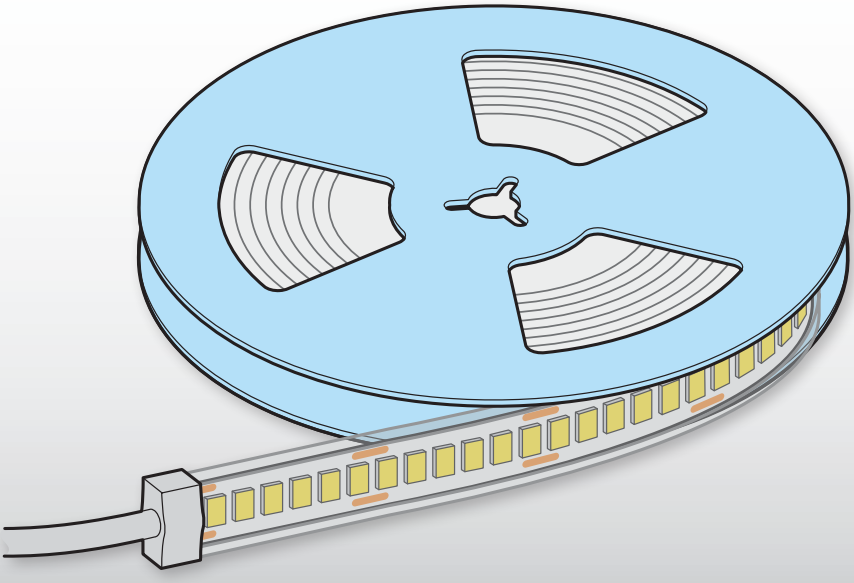
ACCLAIM LIGHTING



Flex One Exterior

User guide

CONTENTS

INTRODUCTION 2
- Welcome 2
- Safety, maintenance and cleaning 2
- Channel types 3

INSTALLATION 4
- Mounting 4
  - Cleaning the mounting surface (for adhesive tape) 4
  - Cutting and sealing the tape 5
  - Clip mounting 6
  - Do not mount underneath surfaces 6
  - Flex exterior line channel (FLK EXL) 7
  - Flex channel - low profile/recessed/tall (FLX444/777/888) 9
- Exterior cable connections 12
- Powering and dimming Flex One tapes 13
  - APS-240-24 PSU 14
  - APS-300-24-IP PSU 15
  - MLE 24VDC dimmable driver (0-10V or TRIAC/ELV control) 16
  - AL Driver 1 (0-10V or DMX control) 17
  - AL Driver 200/400/800 (0-10V, DALI or DMX control) 18

FURTHER INFORMATION 19
- Specifications 19
- Dimensions 20
  - MLE Driver 96 20
  - MLE Drivers 192 and 288 21
  - AL Driver 1 22
  - AL Driver 200 23
  - AL Driver 400 24
  - AL Driver 800 25
  - Channels 26
- Limited product warranty 27

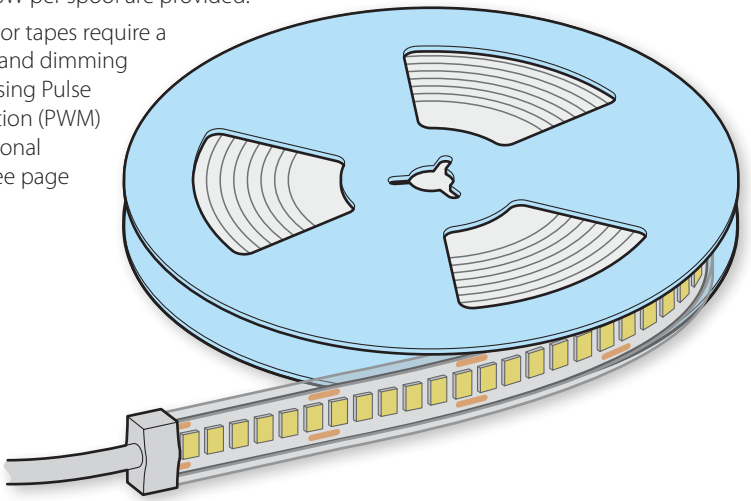
INTRODUCTION

WELCOME

Welcome to the Flex One Exterior range from Acclaim Lighting. These high output LED tapes are designed and built with ingress protection to IP68 to survive the elements. A range of mounting channels (see opposite page) and accessories are available to suit numerous installation situations.

Flex One Exterior tapes feature high concentrations of emitters with a choice of Correlated Color Temperature (CCT) options ranging from 2700K to 4000K. At each color temperature, options of Standard Output (SO) operating at 40W per spool and High Output (HO) operating at 90W per spool are provided.

Flex One Exterior tapes require a 24VDC supply and dimming is supported using Pulse Width Modulation (PWM) by various optional driver units - see page 14.



Thanks to the careful design and high production standards applied to all Flex One tapes, they have been awarded an ETL Sanitation Mark (ANSI/ NSF 2:2015), making them suitable for use in restricted hygiene/food preparation areas.

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.

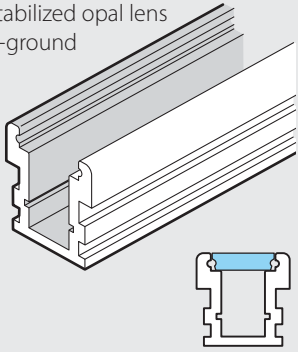
CLEANING

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

CHANNEL TYPES

Flex Exterior line channel [FLX EXL]

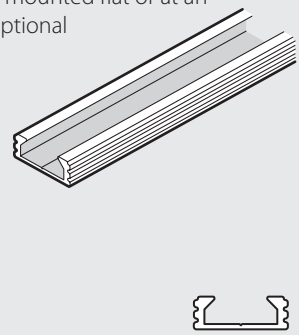
A walk over anodized channel with a sealable UV stabilized opal lens for Exterior in-ground installations.



Page 7

Flex channel low profile [FLX444]

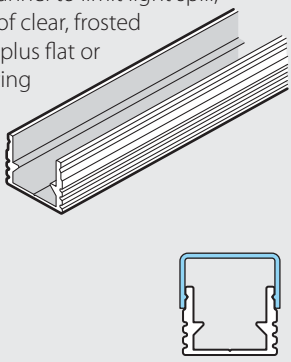
A very low profile channel (without lens) which can be mounted flat or at an angle using optional fixing kits.



Page 9

Flex channel tall profile [FLX888]

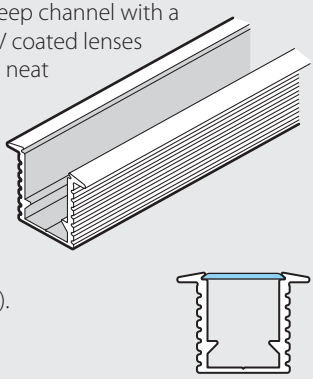
A tall sided channel to limit light spill, with a choice of clear, frosted or opal lenses plus flat or angled mounting options.



Page 9

Flex channel recessed [FLX777]

A flanged deep channel with a choice of UV coated lenses to provide a neat finish when recessed within a surface (not rated for walk-over installations).



Page 9

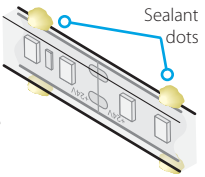
INSTALLATION

MOUNTING

Flex One Exterior tapes are fully sealed within a flexible UV stabilized silicon tube. Mounting to surfaces is usually achieved either by using the ten silicone clips (plus screws) provided or any of the optional aluminum channels or optional adhesive tapes. The recommended aluminum channels all produce an interference fit when the Flex One Exterior tape is fitted into them. We recommend you use Dow Corning® 799, 1199 or equivalent silicone to seal the channels against moisture ingress and also ensure all Flex One connections, within the channels, are fully encapsulated.

WHEN MOUNTING ON THE SIDES OF SURFACES

We recommend that you add small dots of silicone sealant along both sides of the Flex tape (to overlap the tape edge and mounting surface) using Dow Corning® 799, 1199 or equivalent. This will provide additional stability and help to prevent any separation of the tape from the mounting surface over time. The silicone dots are best applied once the tape is fixed in place; then the whole installation should not be disturbed until it the sealant has fully cured.



IMPORTANT: This product is not designed to be mounted underneath surfaces and should never be installed in this manner, even if housed within a channel. See page 6.

CLEANING THE MOUNTING SURFACE (FOR ADHESIVE TAPE)

Most substrates are best prepared by cleaning with a 50:50 mixture of isopropyl alcohol (IPA) and water* prior to applying the tape. Exceptions to this general procedure that may require additional surface preparation include:

HEAVY OILS

A degreaser or solvent-based cleaner* (such as 3M™ Prep Solvent 70, 3M™ Citrus Base Cleaner, mineral spirits, naphtha or similar, subject to suitability for the surface material) may be required to remove heavy oil or grease from a surface and should be followed by cleaning with IPA/water*.

OTHER CONTAMINATION OR OXIDATION

Abrading a surface, followed by cleaning with IPA/water*, can remove heavy dirt or oxidation (e.g. galvanized steel) and can increase surface area to improve adhesion. Abrasion often also helps adhesion to paints and plastics. Very small scratches in the surface, generated with circular motion rather than straight-line motion, are most desirable.

***** *Note: These cleaner solutions contain greater than 250 g/l of volatile organic compounds (VOC). Please consult your local Air Quality Regulations to be sure the cleaner is compliant. When using solvents, be sure to follow the manufacturer's precautions and directions for use when handling such materials.*

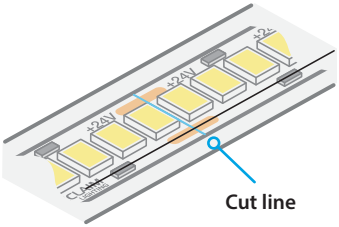
CUTTING AND SEALING THE TAPE

Flex One tapes are supplied with a one metre feed cable at one end (with bare tails).

TO CUT THE TAPE

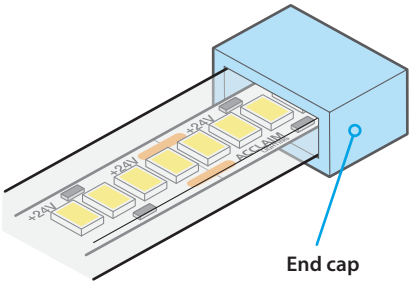
Flex One tapes are marked with a cut line every one inch (25mm) - every six LED emitters.

IMPORTANT: Do not cut the tape at any location other than the cut line. Ensure the cut is made cleanly thru the silicone outer and along the line.



TO SEAL A CUT TAPE

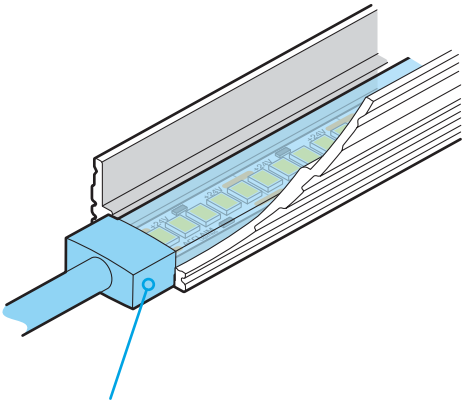
Once a Flex One tape has been cut, apply a little silicone sealant (Dow Corning® 799, 1199 or equivalent) to the cut end and fit one of the supplied end caps to ensure a fully watertight seal.



For the most reliable results, you are recommended to use a new spool, with molded feed cable intact, to start each fresh run and to always fit an end cap to the far end (as discussed above).

However, when using channels, the feed/end caps are slightly too large to fit within the channel extrusions and would need to be located outside.

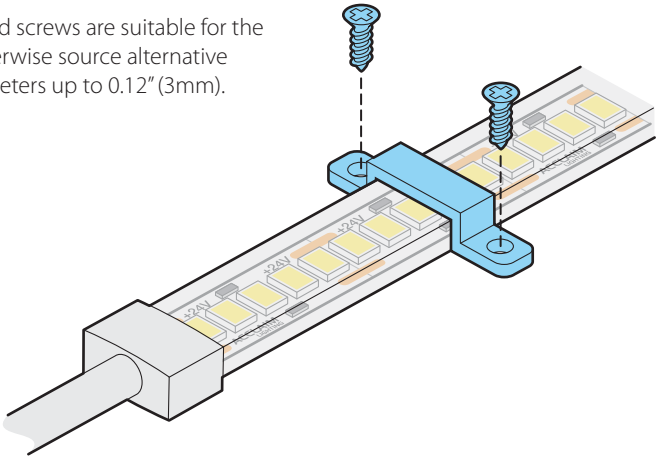
Where this is not appropriate, the feed contacts will need to be soldered within the channel. If you use this method, ensure sufficient silicone sealant is applied to the joint to provide reliable water resistance.



CLIP MOUNTING

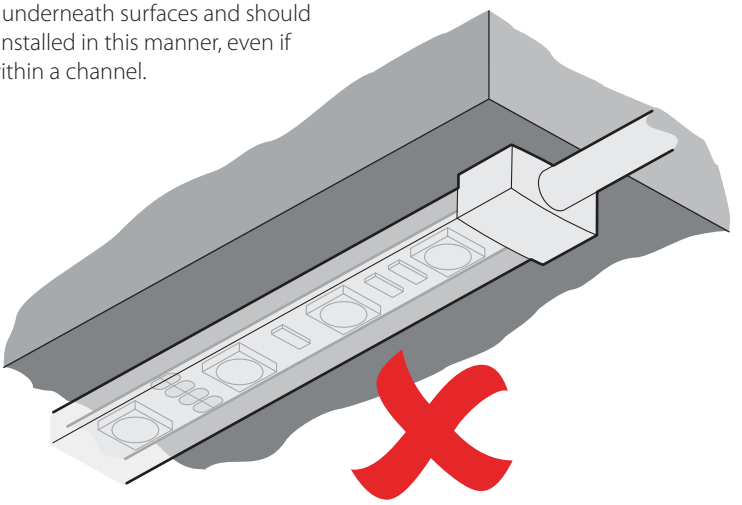
Each Flex One Exterior tape spool is supplied complete with ten UV stabilized silicone mounting clips and twenty wood screws (M3 x 10mm) that can be used to directly fix the tape to appropriate surfaces.

Ensure that the supplied screws are suitable for the mounting surface, otherwise source alternative screws/bolts with diameters up to 0.12" (3mm).



DO NOT MOUNT UNDERNEATH SURFACES

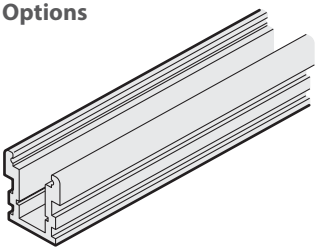
IMPORTANT: This product is not designed to be mounted underneath surfaces and should never be installed in this manner, even if housed within a channel.



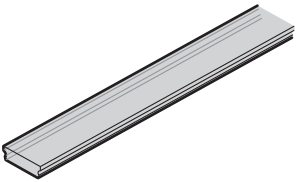
FLEX EXTERIOR LINE CHANNEL (FLK EXL)

This sturdy anodized aluminum channel allows the Flex One tape to be recessed into Exterior surfaces and is rated for walk-over installations. Thanks to the increased thickness of its profile, the channel can withstand pressures of up to 2.9psi (20kN/m^2). To achieve effective IP67 water ingress protection it is necessary to use Dow Corning® 799, 1199 (or equivalent) silicone sealant to form complete seals between the channel and its UV coated lens - plus any cable access holes. For channel dimensions, see page 26.

Options



Flex Exterior line channel
(3.28' / 1m)
[FLK EXL]



Exterior line opal lens
(3.28' / 1m)
[FLK EXL OL]

End cap
[FLK EXL EC]

End cap with hole
[FLK EXL ECH]

TO FIT THE FLEX ONE TAPE

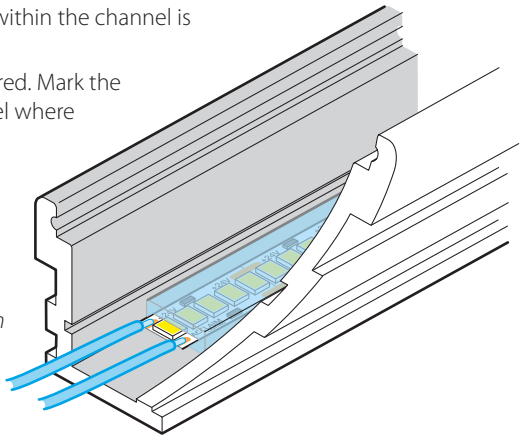
Note: The molded feed cap fitted on each spool is too large to fit within the channel. In order to achieve a fully sealed installation within the channel, it will be necessary to remove the molded connection and solder new feed wires directly to the nearest cut line. See page 5.

1 If necessary, cut the channel to the required length. Ensure that any resulting burrs are removed.

2 Ensure the tape mounting surface within the channel is completely dry and clean.

3 Determine the length of tape required. Mark the positions at each end of the channel where the tape will be placed.

Note: Flex One tape can be cut every 1" (25mm), which may slightly constrain the precise lengths of tape that can be achieved. Therefore, it may be beneficial to center the tape within the channel to achieve an even distribution.



4 Cut the tape to the nearest marked cutpoint.

5 Carefully push the tape into the channel, starting at the marked position. The tape's size will cause an interference fit within the channel, keeping it in place without adhesive.

IMPORTANT: While pressing the Flex One tape into position, take care not to put excessive pressure on the components or connections.

6 Use Dow Corning® 799, 1199 (or equivalent) silicone sealant to fully encapsulate the feed connections to protect against any moisture ingress.

TO RECESS IN GROUND

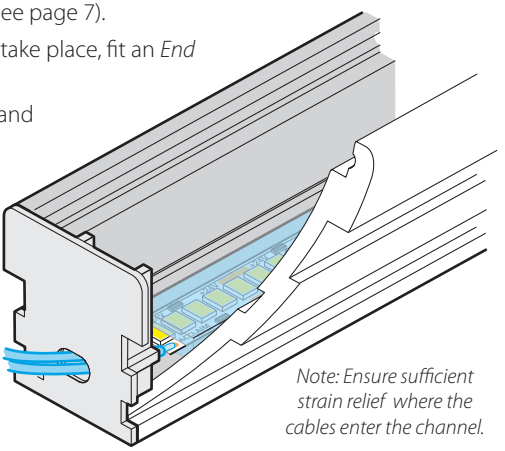
1 Fit the Flex One tape to the channel (see page 7).

2 At the end where the connection will take place, fit an *End cap with hole*.

3 Feed the cables through the end cap and carefully solder to the contact pads, if necessary (see page 5).

4 At the other end of the channel, fit a standard *End cap*.

5 To ensure long term protection against water ingress, coat all internal end cap seams with a bead of sealant (Dow Corning® 799, 1199 or equivalent). Pay particular attention to the cable entry point.



Note: Ensure sufficient strain relief where the cables enter the channel.

6 Fit and seal the required lens (see below).

7 Place the sealed tape/channel assembly into the prepared ground recess.

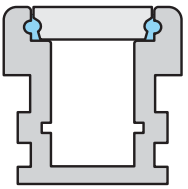
TO FIT THE LENS

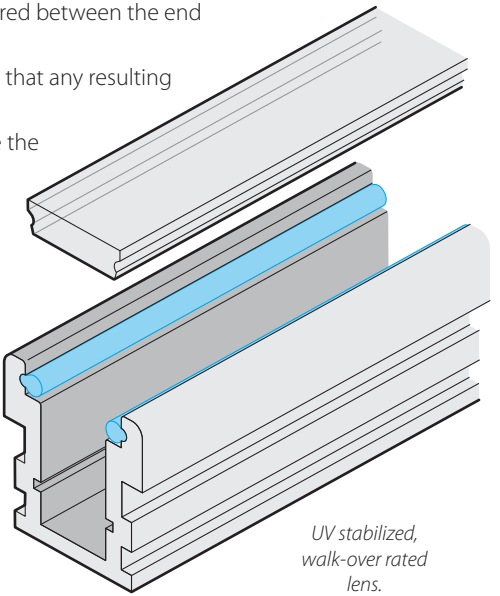
1 Measure the exact length of lens required between the end caps at each end of the channel.

2 Carefully cut the lens to length. Ensure that any resulting burrs are removed.

3 Along each side of the channel (where the lens will sit) carefully run a thin bead of sealant (Dow Corning® 799, 1199 or equivalent). The bead should be large enough in diameter to ensure a good seal between the channel and the lens, but not so much that excess sealant runs into the channel and contaminates the lens inner face.

4 Determine the correct orientation of the lens - it has a wider outer face and a slightly narrower inner face.





UV stabilized, walk-over rated lens.

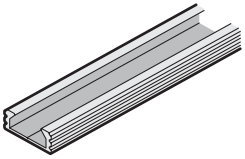
5 Carefully lower the lens onto the beads of sealant and ensure that it fully seats in place. Wipe away any excess sealant.

6 Apply further sealant between the lens and the end caps.

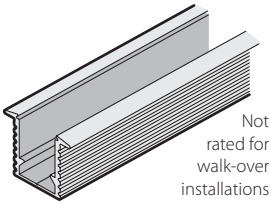
FLEX CHANNEL - LOW PROFILE/RECESSED/TALL (FLX444/777/888)

There are three options within the Flex channel range to suit varying installation requirements: A low profile option with no lens; a recessed channel for concealment within surfaces and a tall profile channel that reduces light spill. The latter two channels have a choice of clear, frosted or opal lenses. For channel dimensions, see page 26.

Options

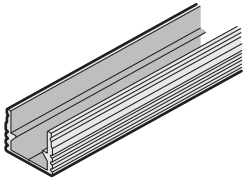


Flex channel low profile
(4' / 1.21m)
[FLX444]

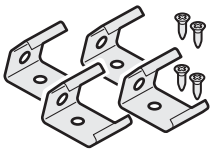


Not rated for walk-over installations

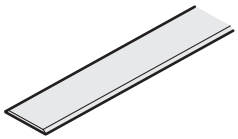
Flex channel recessed
(4' / 1.21m)
[FLX777]



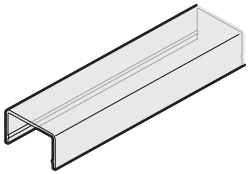
Flex channel tall profile
(4' / 1.21m)
[FLX888]



Angled brackets plus 2.5 x 10mm wood screws
[FLX113]

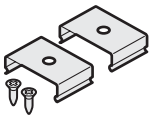


Recessed lenses (4' / 1.21m)
[Clear: FLX727]
[Frosted: FLX715]
[Opal: FLX702]



Tall profile lenses (4' / 1.21m)
[Clear: FLX825]
[Frosted: FLX813]
[Opal: FLX801]

Flat brackets/ joiners plus 2.5 x 10mm wood screws
[FLX111]



TO FIT THE FLEX ONE TAPE

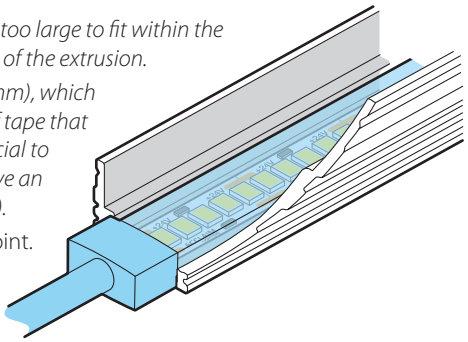
1 If necessary, cut the channel to the required length. Remove any resulting burrs.

2 Ensure the tape mounting surface within the channel is completely dry and clean.

3 Determine the length of tape required. Mark the positions at each end of the channel where the tape will be placed.

Note: The molded feed cap on each spool is too large to fit within the channel and will need to be located outside of the extrusion.

Note: Flex One tape can be cut every 1" (25mm), which may slightly constrain the precise lengths of tape that can be achieved. Therefore it may be beneficial to center the tape within the channel to achieve an even distribution (subject to the above note).



4 Cut the tape to the nearest marked cutpoint.

5 *Note: If you are attaching the channel directly to a surface, see 'To surface mount directly' on page 10* ***before*** *inserting the tape.*

Carefully push the tape into the channel, starting at the marked position. The tape's size will cause an interference fit within the channel, keeping it in place without adhesive.

IMPORTANT: While pressing the Flex One tape into position, take care not to put excessive pressure on the components or connections.

6 If necessary, use Dow Corning® 799, 1199 (or equivalent) silicone sealant to fully encapsulate the power connections to protect against any moisture ingress.

TO SURFACE MOUNT DIRECTLY

1 Before fitting the Flex One tape, determine where the channel is to be mounted.

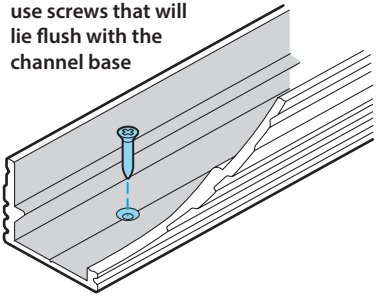
2 Drill the required number of holes in the base of the channel and countersink them. *Note: A small groove runs down the center of each channel base to provide a guide for your drill.*

3 Mount the channel and use countersunk screws to secure it. **IMPORTANT: The screw heads must lie flush with the channel base.**

4 Fit the Flex One tape to the channel (see page 9).

5 Carefully solder to the contact pads, if necessary (see page 5).

Drill countersunk holes and use screws that will lie flush with the channel base



TO SURFACE MOUNT USING BRACKETS

1 If necessary, carefully solder to the contact pads (see page 5).

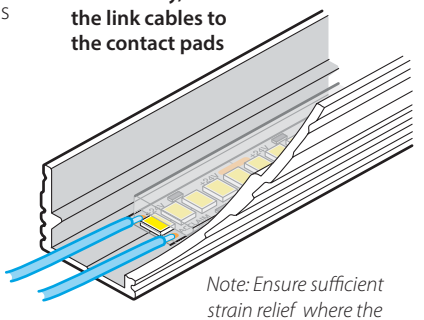
2 Fit the Flex One tape to the channel (see page 9).

3 Attach two or more brackets (of the required type: *Flat brackets* or *Angled brackets*) to the mounting surface using either the supplied screws or others that are more appropriate to the surface type.

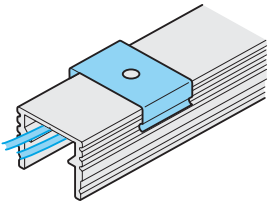
The angled bracket can be used in either of two orientations to provide an angle of either 30 or 45 degrees to the mounting surface (as shown below).

4 Clip the channel into the mounting brackets:

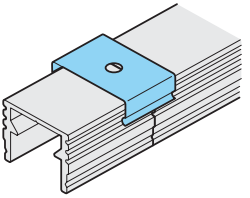
If necessary, solder the link cables to the contact pads



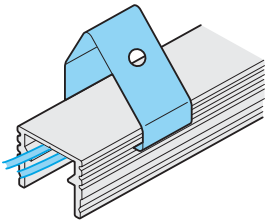
Note: Ensure sufficient strain relief where the cables enter the channel.



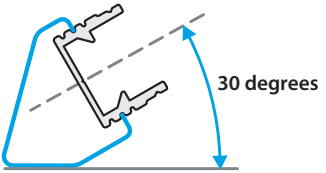
Attaching a flat bracket



Using a flat bracket to join two channels



Attaching an angled bracket



The angled bracket can be used in either of two orientations to provide angles of either 30 or 45 degrees to the mounting surface

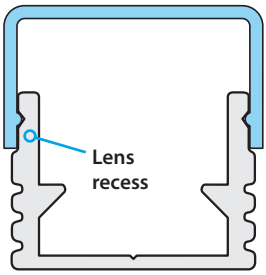
TO FIT A LENS

1 Measure the exact length of UV stabilized lens required between each end of the channel.

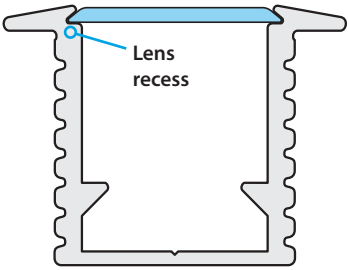
2 Carefully cut the lens to length. Ensure that any resulting burrs are removed.

3 Depending on the channel type:

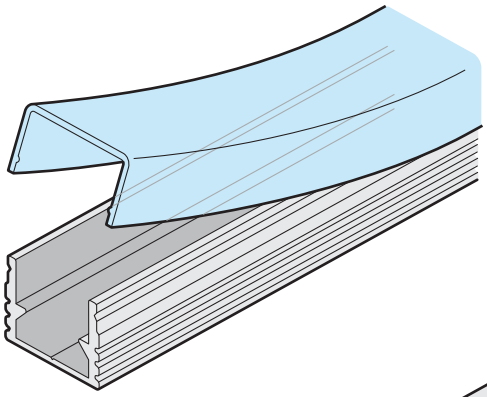
- **Tall profile**: Place one end of the UV stabilized lens over the channel so that it slots into the 'Lens recess' (see right). Then run your hand along the length of the lens to gently push the remainder into place.
- **Recessed**: Insert one end of the UV stabilized lens into the 'Lens recess' within the channel (see right). Then slide the remaining lens into the recess.
  Note: This channel type is not rated for walk-over installations.



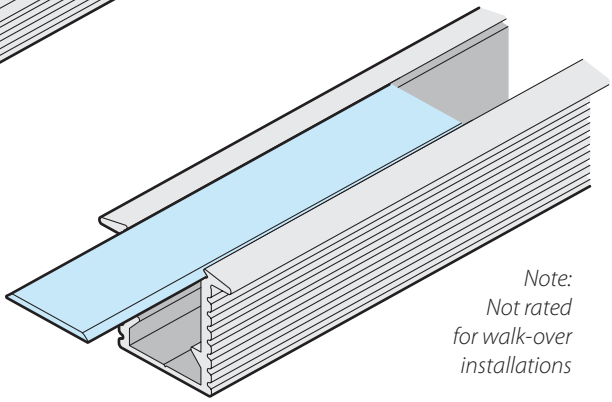
Tall profile
[FLX888]



Recessed
[FLX777]



Tall profile
[FLX888]



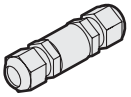
Note:
Not rated
for walk-over
installations

Recessed
[FLX777]

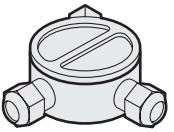
EXTERIOR CABLE CONNECTIONS

To provide protection for exterior cable connections and distributions, waterproof couplers and splitters are available. When used correctly, both items offer ingress protection to IP68.

Options

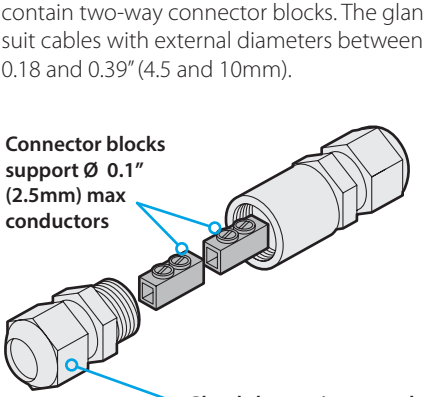


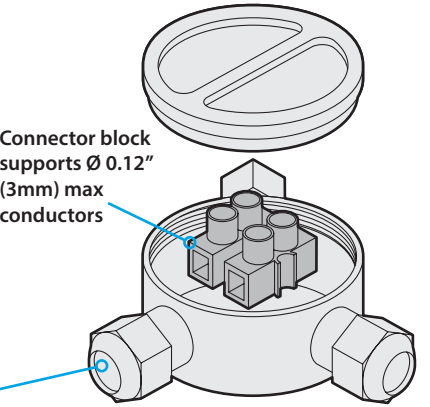
Waterproof coupler
[FLK WPC]



Waterproof splitter
[FLK WPS]

Internally the coupler and splitter units both contain two-way connector blocks. The glands suit cables with external diameters between 0.18 and 0.39" (4.5 and 10mm).





POWERING AND DIMMING FLEX ONE TAPES

POWER REQUIREMENTS

Flex One tapes are run at 24VDC and consume power as shown below. *Note: The average power consumption per foot decreases as the length increases due to increased voltage drops on longer lengths.*

	Flex One SO		**Flex One HO**	
	Power consumption		Power consumption	
Length	*Total*	*(Average per foot)*	*Total*	*(Average per foot)*
1′ (30cm)	3W	(3W)	13W	(13W)
2′ (60cm)	6W	(3W)	14W	(7W)
3′ (91cm)	9W	(3W)	20W	(6.66W)
4′ (1.2m)	12W	(3W)	26W	(6.5W)
5′ (1.5m)	14W	(2.8W)	32W	(6.4W)
6′ (1.8m)	16W	(2.66W)	38W	(6.33W)
7′ (2.1m)	18W	(2.57W)	43W	(6.14W)
8′ (2.4m)	20W	(2.5W)	48W	(6W)
9′ (2.7m)	22W	(2.44W)	54W	(6W)
10′ (3m)	24W	(2.4W)	59W	(5.9W)
11′ (3.3m)	26W	(2.36W)	64W	(5.81W)
12′ (3.6m)	28W	(2.33W)	69W	(5.75W)
13′ (3.9m)	30W	(2.3W)	73W	(5.61W)
14′ (4.2m)	32W	(2.28W)	78W	(5.57W)
15′ (4.5m)	34W	(2.26W)	82W	(5.4W)
16.4′ (5m)	40W	(2.43W)	90W	(5.5W)

Note: The maximum overall tape length per run is 16.4′ (5 meters). This is limited by the current capacity of the power buses within each tape.

CONNECTION CABLES

The connection cables (not supplied) used to link Flex One tapes to the power/driver unit should follow these guidelines (based on a load of 0.7A for 16.4′ /5 meters of Flex One tape):

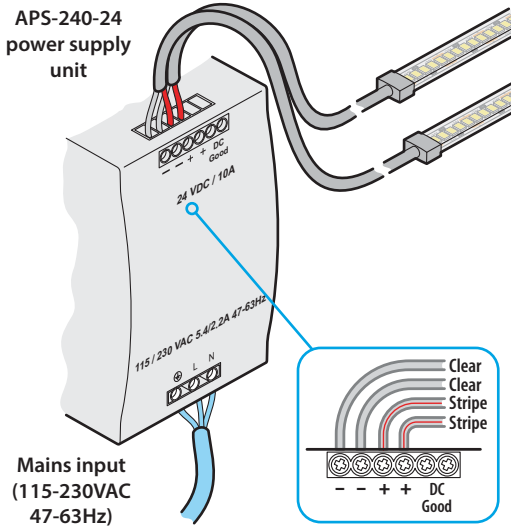
Cable cross section	Flex One **SO**	Flex One **HO**
18 AWG (0.823mm^2)	Up to 80 feet (24m)	Up to 40 feet (12m)
14 AWG (2.081mm^2)	Up to 200 feet (60m)	Up to 100 feet (30m)
12 AWG (3.309mm^2)	Up to 300 feet (91m)	Up to 180 feet (54m)

In all cases, ensure the voltage drop at the fixture end of the link cable is no greater than 9% (2.16V) of the original 24VDC supply.

FLEX ONE POWER SUPPLIES AND DIMMERS

APS-240-24

This DIN-rail 240W power supply can power multiple 16.4' (5 meter) Flex One spools. It can also be used in conjunction with one or more AL Driver 1 units to provide power for dimming control.



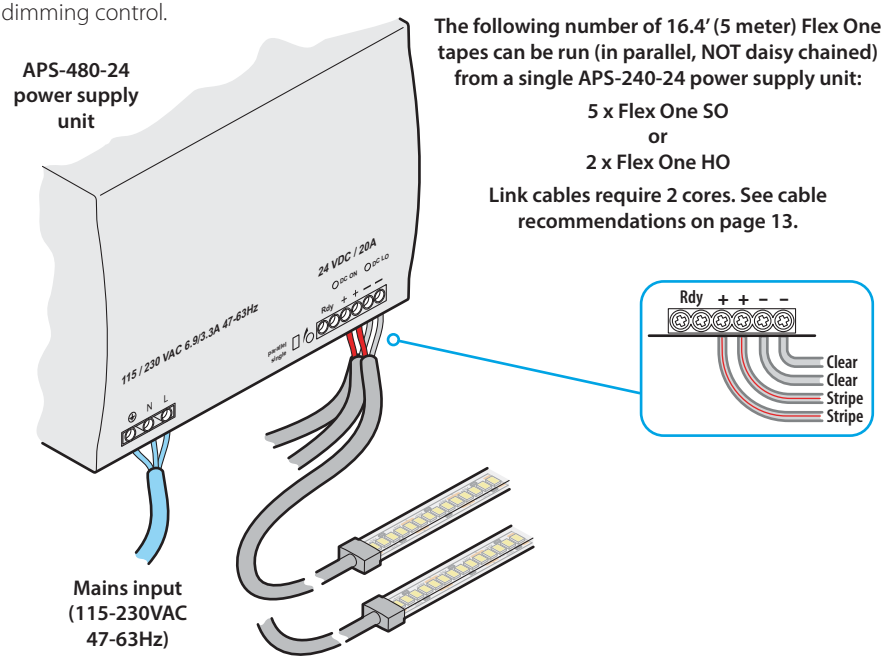
The following number of 16.4' (5 meter) Flex One tapes can be run (in parallel, NOT daisy chained) from a single APS-240-24 power supply unit:

5 x Flex One SO
or
2 x Flex One HO

Link cables require 2 cores. See cable recommendations on page 13.

APS-480-24

This DIN-rail 480W power supply can power multiple 16.4' (5 meter) Flex One spools. It can also be used in conjunction with one or more AL Driver 1 units to provide power for dimming control.



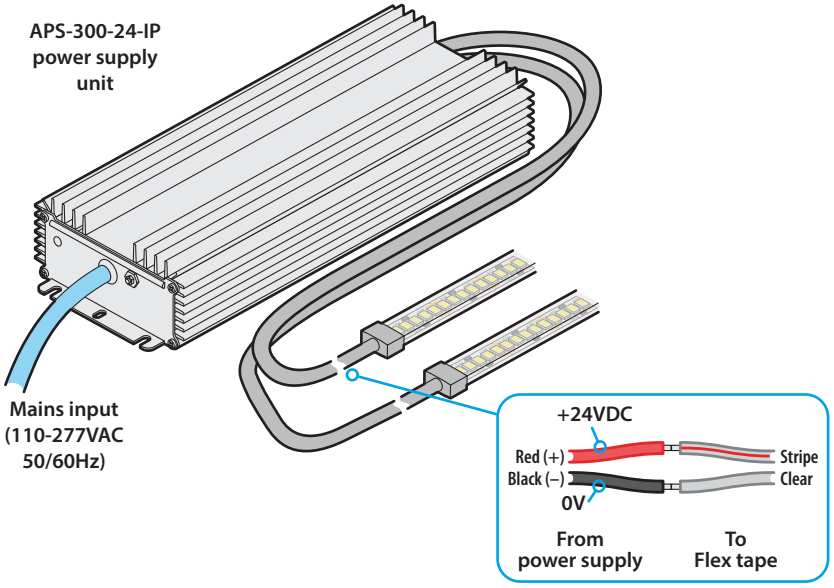
The following number of 16.4' (5 meter) Flex One tapes can be run (in parallel, NOT daisy chained) from a single APS-240-24 power supply unit:

5 x Flex One SO
or
2 x Flex One HO

Link cables require 2 cores. See cable recommendations on page 13.

APS-300-24-IP

This IP67 rated power supply can power multiple 16.4' (5 meter) Flex One spools. It can also be used in conjunction with one or more AL Driver 1 units to provide power for dimming control.



The following number of 16.4' (5 meter) Flex One tapes can be run (in parallel, NOT daisy chained) from a single APS-300-24-IP power supply unit:

6 x Flex One SO
or
3 x Flex One HO

Link cables require 2 cores. See cable recommendations on page 13.

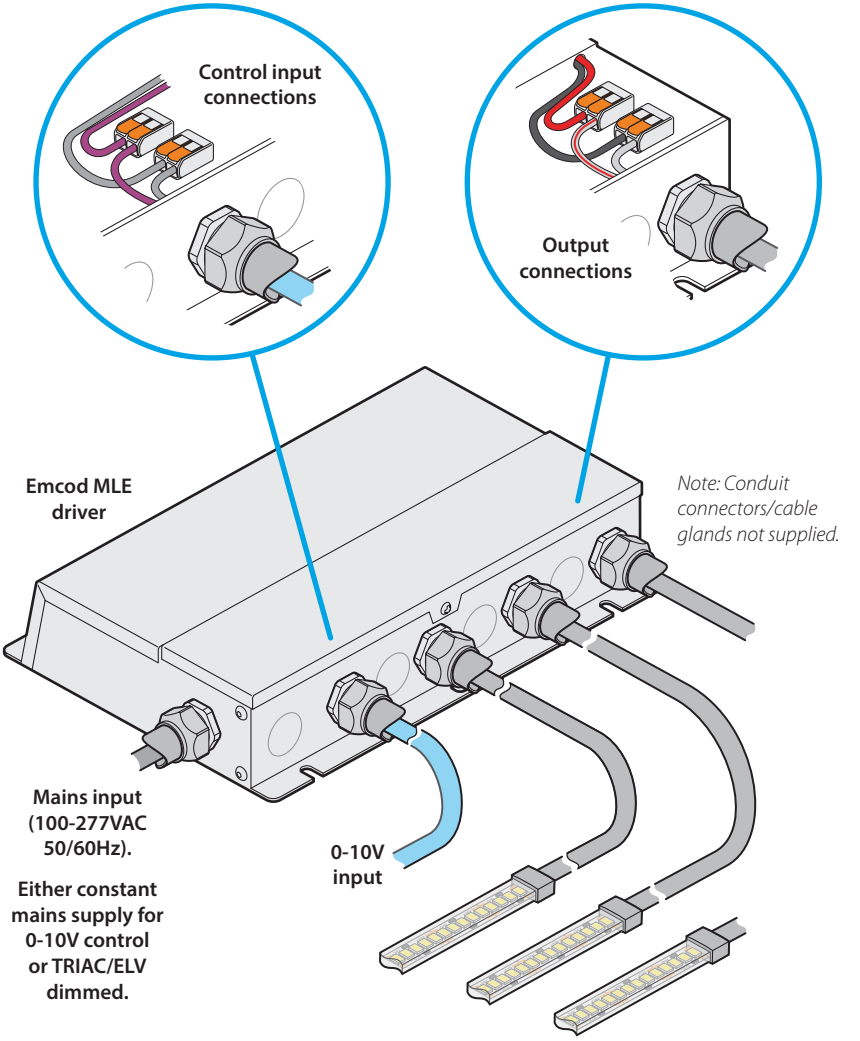
MLE 24VDC DIMMABLE DRIVER (0-10V OR TRIAC/ELV CONTROL)

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 13. The number of spools that can be controlled depends on both the MLE driver and Flex One SO/HO model type:

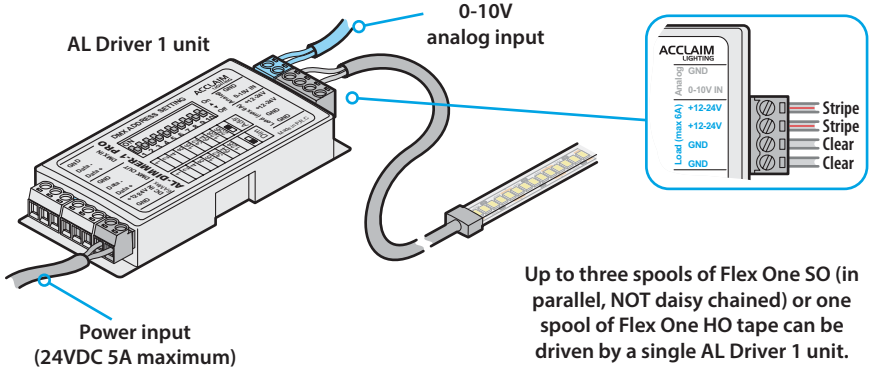
- MLE96 *[part #: MLE96-24DC-UD]* SO: 2 x 16.4' (5m) or HO: 1 x 16.4' (5m) maximum
- MLE192 *[part #: MLE192-24DC-UD]* SO: 4 x 16.4' (5m) or HO: 2 x 16.4' (5m) maximum
- MLE288 *[part #: MLE288-24DC-UD]* SO: 6 x 16.4' (5m) or HO: 3 x 16.4' (5m) maximum



AL DRIVER 1 (0-10V OR DMX CONTROL)

This compact unit measures just 3.5" x 1.6" x 0.8" and provides dimming control for Flex One tapes from either analog 0-10V (sink or source) **or** digital DMX control inputs. The AL Driver 1 unit requires a 24VDC power supply (such as the Acclaim Lighting APS-240-24) and can drive up to three Flex One SO spools or one Flex One SO spool.

Dimming control by analog 0-10V (sink or source) input

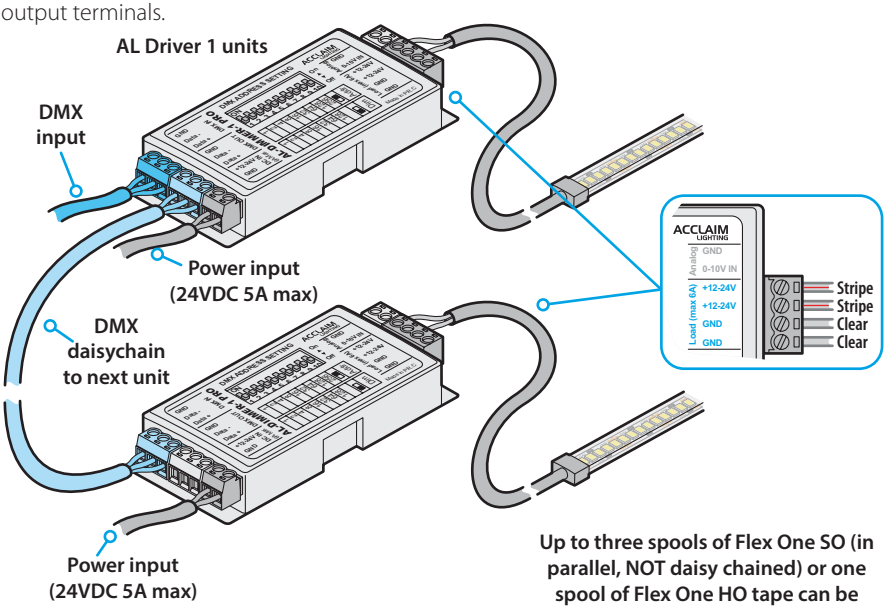


Up to three spools of Flex One SO (in parallel, NOT daisy chained) or one spool of Flex One HO tape can be driven by a single AL Driver 1 unit.

Link cables require 2 cores. See cable recommendations on page 13.

Dimming control (and control daisy chaining) by DMX

Up to 32 AL Driver 1 units can be daisy chained on a single unbuffered DMX line. The final unit in the daisy chain must be terminated by a 120Ω resistor across the Data + and – output terminals.



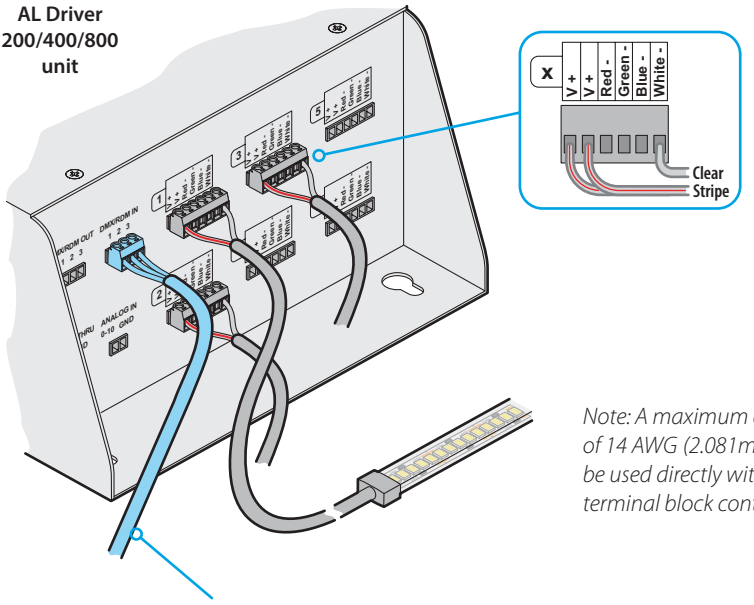
Up to three spools of Flex One SO (in parallel, NOT daisy chained) or one spool of Flex One HO tape can be driven by a single AL Driver 1 unit.

Link cables require 2 cores. See cable recommendations on page 13.

AL DRIVER 200/400/800 (0-10V, DALI OR DMX CONTROL)

Four ports: *[part #: AL Driver 200]*
Six ports: *[part #: AL Driver 400] or*
Ten ports: *[part #: AL Driver 800].*

The full size AL Drivers provide multi-channel dimming control for Flex One tapes, using either 0-10V, DALI or DMX control inputs (standalone modes also available). All three models are connected and configured in similar ways; it is the number of ports and total overall current capacity that varies. See cable recommendations on page 13.



Note: A maximum cable size of 14 AWG (2.081mm²) can be used directly within the terminal block contacts.

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:

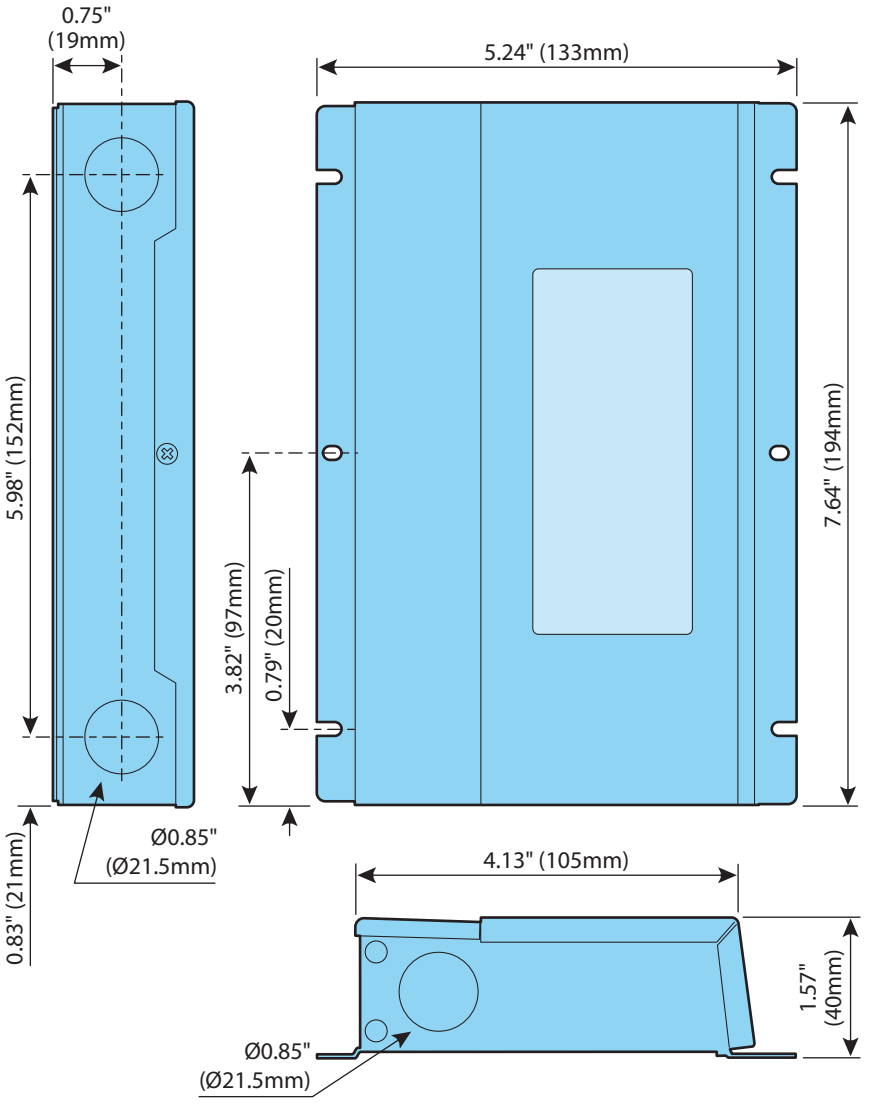
	AL Driver 200	AL Driver 400	AL Driver 800
Maximum overall current	8A	16.5A	33A
Flex One SO (5m spool)	5 spools	6 spools	10 spools
Flex One HO (5m spool)	2 spools	4 spools	8 spools

FURTHER INFORMATION

SPECIFICATIONS

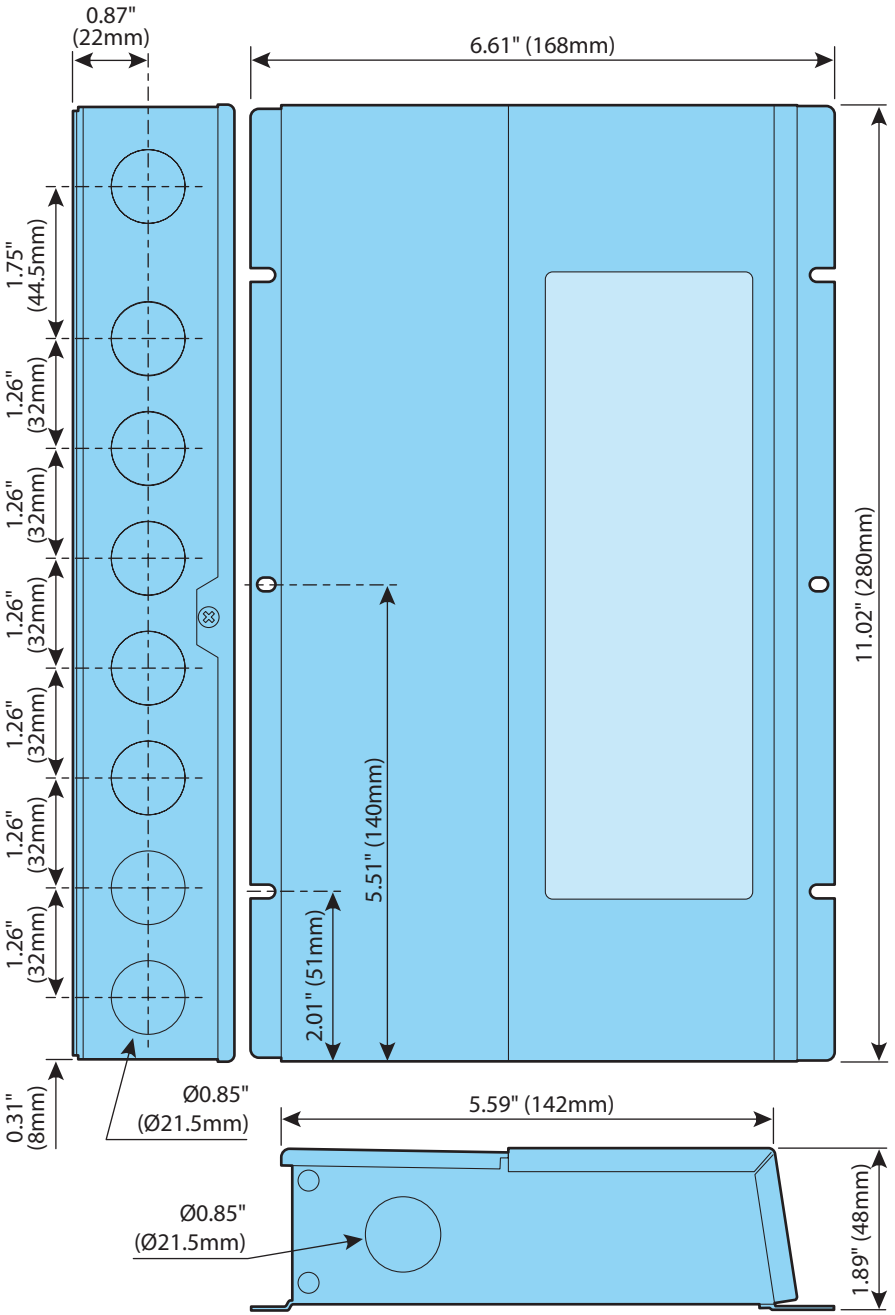
Beam angle	126°
Color temperature (CCT)	2400K, 3000K or 4000K
Lumens	Flex One **SO**: Up to 201 (1' section) Flex One **HO**: Up to 411 (1' section)
Color Rendering Index (CRI)	Flex One **SO**: Up to 96.4 Flex One **HO**: Up to 95.7
Lumen maintenance (L_{70})	50,000 hours (25°C max)
Operating voltage	24VDC
Power consumption	See "Powering and dimming Flex One tapes" on page 13
Dimming control	Pulse width modulation
Maximum overall length	16.4' (5m)
Ingress protection	IP68 (wet location and submersible)
Impact protection	IK06 (protected up to 1 joule impact)
Dimensions (W x H x L)	0.47" x 0.18" x 16.4' * 12 x 4.5 x 5000mm * * feed-in end cap: 0.55" x 0.28" x 0.39" (14 x 7 x 10mm)
Operating temperature	-40°F to 122°F -40°C to 50°C
Housing	Copper strip, silicone jacket
Certifications	

DIMENSIONS - MLE DRIVER 96



Weight: 3.1 lbs (1.4kg)

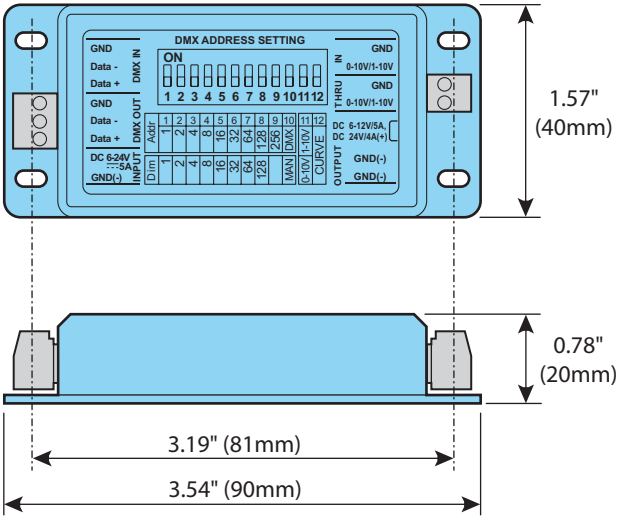
DIMENSIONS - MLE DRIVERS 192 AND 288



Weight (192): 5.5 lbs (2.5kg)

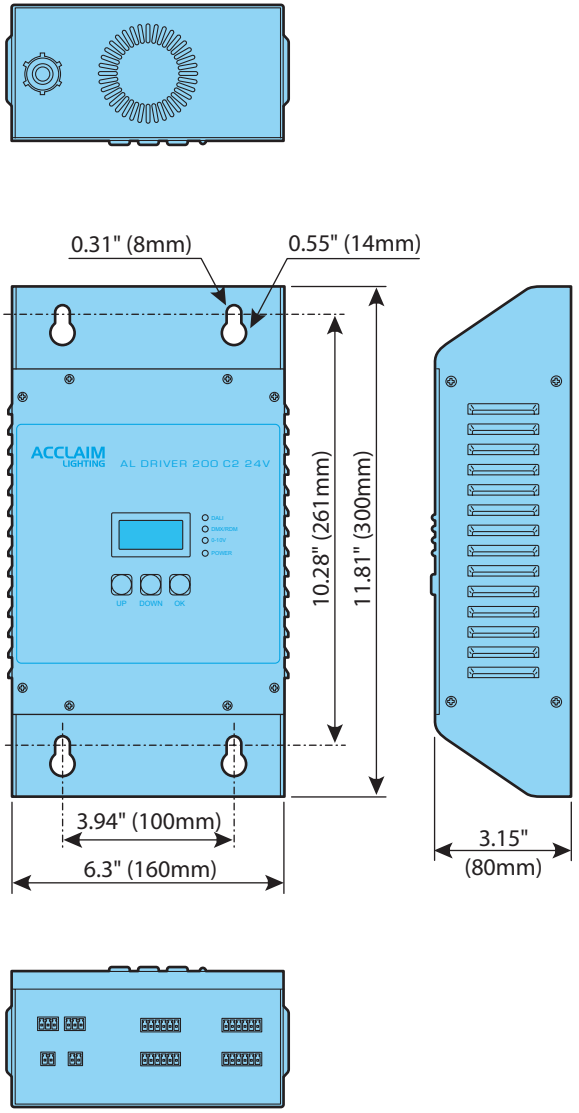
Weight (288): 5.7 lbs (2.6kg)

DIMENSIONS - AL DRIVER 1



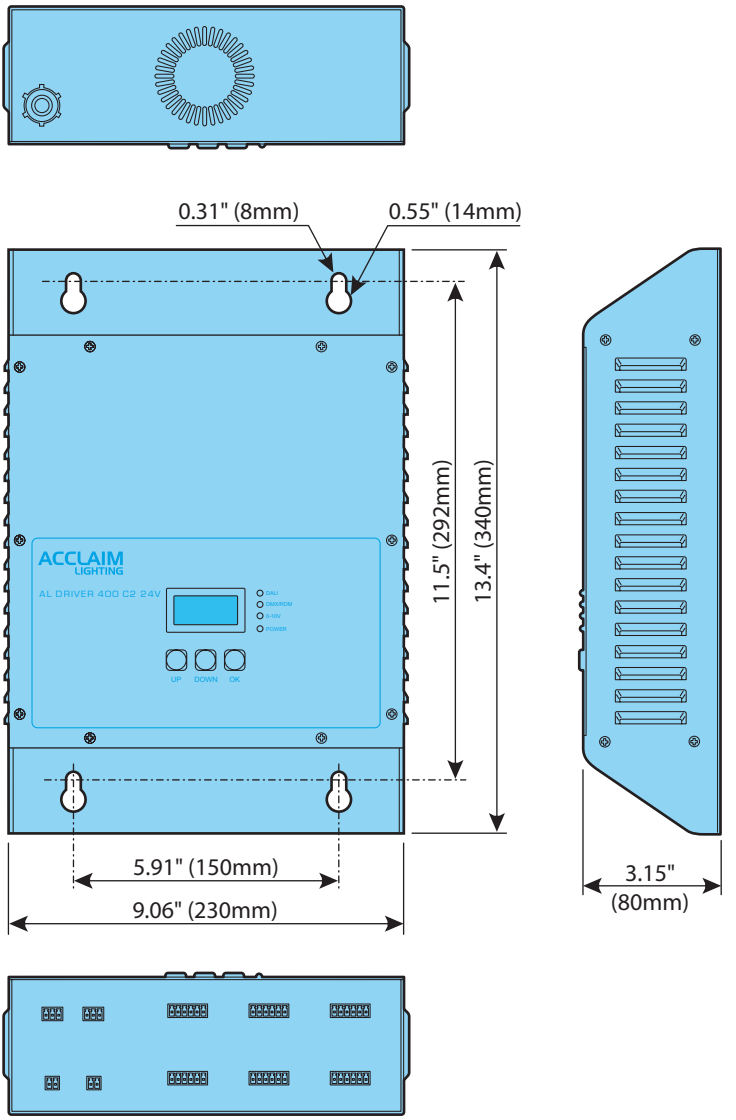
Weight: 0.1 lbs (45g)

DIMENSIONS - AL DRIVER 200



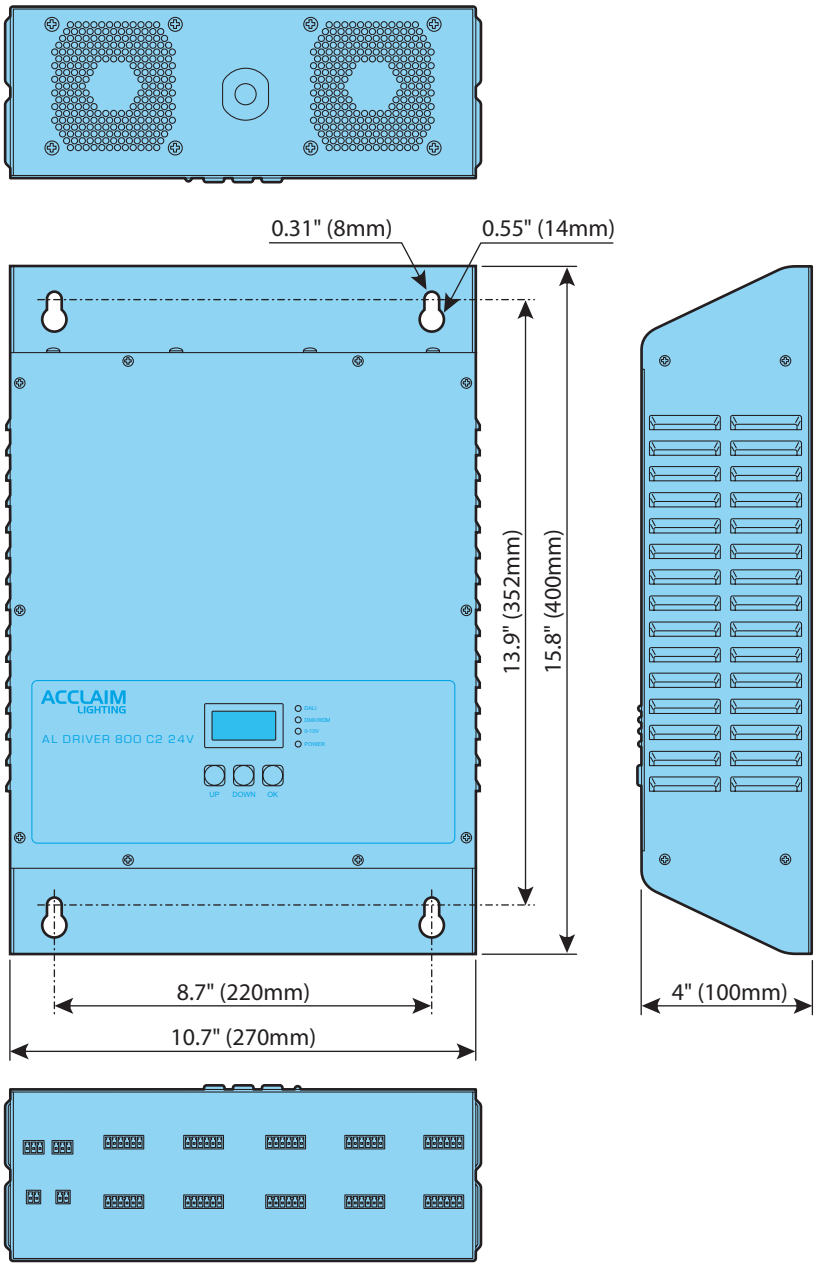
Weight: 5.29 lbs (2.4kg)

DIMENSIONS - AL DRIVER 400



Weight: 8.4 lbs (3.8kg)

DIMENSIONS - AL DRIVER 800



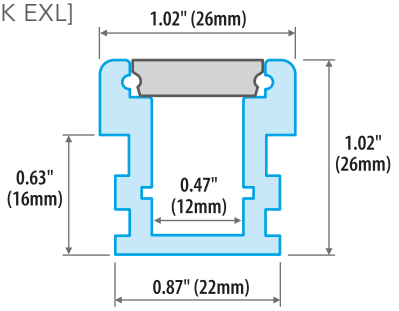
Weight: 14.4 lbs (6.5kg)

DIMENSIONS - CHANNELS

The Flex external line channels and lenses are supplied in lengths of 3.28' (1m) whereas the FLX444, FLX777 and FLX888 (and their respective lenses) are all supplied in lengths of 4' (1.21mm).

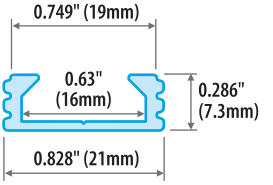
FLEX EXTERIOR LINE CHANNEL

[FLK EXL]



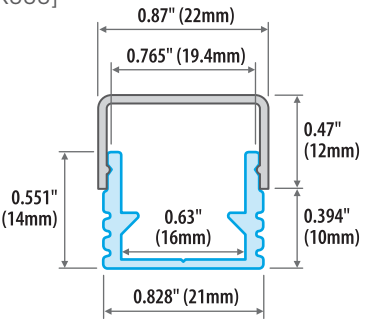
FLEX CHANNEL LOW PROFILE

[FLX444]



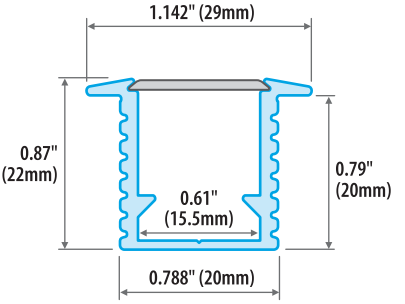
FLEX CHANNEL TALL PROFILE

[FLX888]



FLEX CHANNEL RECESSED

[FLX777]



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:

- 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.
- Flex Products: 3 Years (1,095 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 there of. 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 manufactures 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.

www.acclaimlighting.com