

Flex One Interior

CONTENTS

INTRODUCTION	2
Welcome	2
Safety, maintenance and cleaning	2
Channel types	3
INSTALLATION	4
Mounting	4
Cleaning and preparing the mounting surface	4
Mounting surface advice	5
Cutting and connecting the tape	6
Flex 45 degree channel (FLX 45D)	7
Flex pendant channel (FLK PEN)	9
Flex graze channel (FLK GRZ)	13
Flex mini channel (FLX MIN)	15
Flex mini square channel (FLX MSP)	17
Flex swivel channel (FLK SWI)	19
Flex dual channel (FLK DUL)	21
Flex channel - low profile (FLX444)	24
Flex channel - recessed/tall (FLX777/888)	26
Flex drywall channel (FLK DWM/DWC/DWF)	29
Powering and dimming Flex One tapes	34
APS-240-24 PSU	35
APS-300-24-IP PSU	36
MLE 24VDC dimmable driver (0-10V or TRIAC/ELV control)	37
AL Driver 1 (0-10V or DMX control)	38
AL Driver 200/400/800 (0-10V, DALI or DMX control)	39
FURTHER INFORMATION	40
Specifications	40
Dimensions	41
MLE Driver 96	41
MLE Drivers 192 and 288	42
AL Driver 1	43
AL Driver 200	44
AL Driver 400	45
AL Driver 800	46
Channels	47
Limited product warranty	49

INTRODUCTION

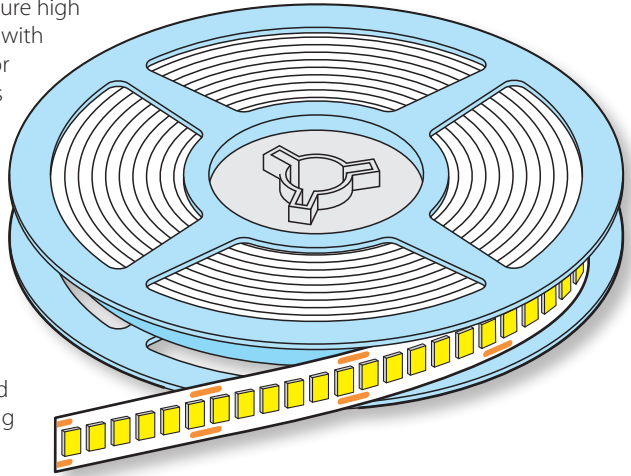
WELCOME

Welcome to the Flex One Interior range from Acclaim Lighting. These high output single color LED tapes, together with a wide range of mounting channels (see opposite page), suit many installation situations.

Flex One Interior tapes feature high concentrations of emitters with a choice of Correlated Color Temperature (CCT) options ranging from 2400K 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 Interior tapes require a 24VDC supply and dimming is supported using Pulse Width Modulation (PWM) by various optional driver units - see page 34.

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

- 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.

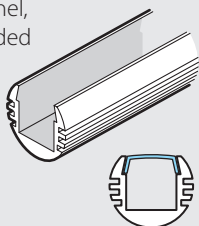
CLEANING

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

CHANNEL TYPES

Flex pendant channel [FLK PEN]

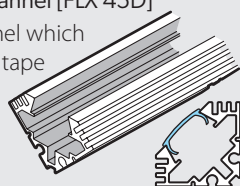
A neatly rounded channel, designed to be suspended by wires or rods - with the option of power delivery via the suspension wires/rods.



Page 9

Flex 45 degree channel [FLX 45D]

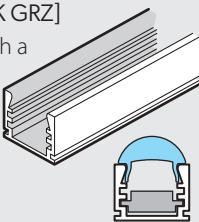
A low profile channel which holds the Flex One tape at 45 degrees to the mounting surface.



Page 7

Flex graze channel [FLK GRZ]

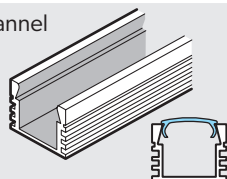
Low profile channel with a movable mounting rail and rounded lens to produce a range of beam angles suitable for grazing surfaces.



Page 13

Flex mini square channel [FLX MSP]

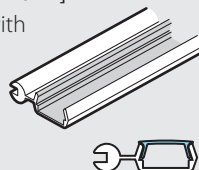
A low profile channel with a choice of lenses.



Page 17

Flex Swivel channel [FLX SWI]

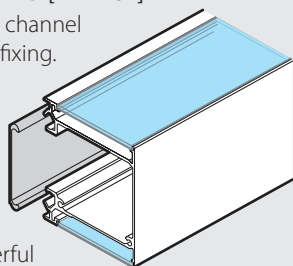
A low profile channel with swivel mounts to allow positioning at any angle. Choice of lenses.



Page 19

Flex Dual channel [FLK DUL]

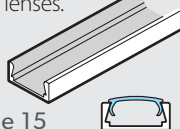
A box section channel with invisible fixing. Opposing surfaces can each hold up to four runs of Flex One tape to provide powerful bi-directional output.



Page 21

Flex mini channel [FLX MIN]

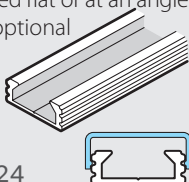
A very low profile channel with a choice of clear, frosted or opal lenses.



Page 15

Flex channel low profile [FLX444]

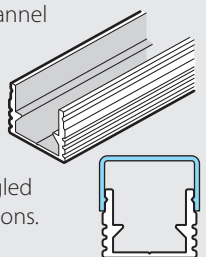
A low profile channel to be mounted flat or at an angle using optional fixing kits.



Page 24

Flex channel tall profile [FLX888]

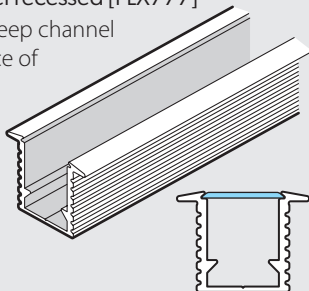
A tall sided channel to limit light spill, with a choice of clear, frosted or opal lenses plus flat or angled mounting options.



Page 26

Flex channel recessed [FLX777]

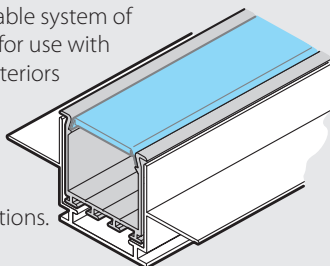
A flanged deep channel with a choice of lenses to provide a neat finish when recessed within a surface.



Page 26

Flex dry wall channel [FLK DWM]

An adaptable system of channels for use with drywall interiors in either recessed or surface mount configurations.



Page 29

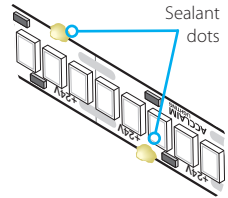
INSTALLATION

MOUNTING

Flex One Interior tapes are supplied with 3M™ VHB acrylic adhesive backing, protected by a peel-off paper liner. To ensure that good adhesion is achieved, ensure the mounting surface is free of grease, moisture and any contaminates.

WHEN MOUNTING ON THE SIDES OR UNDERSIDES 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.



- For further details about specific mounting surfaces, see page 5.

CLEANING AND PREPARING THE MOUNTING SURFACE

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.*

MOUNTING SURFACE ADVICE

The 3M™ VHB adhesive applied to the back of Flex One tapes provides adhesion to a wide variety of surfaces. Advice for the preparation of certain surfaces is given below.

WOOD, PARTICLE BOARD AND CEMENT SURFACES

Rough, porous or fibered materials such as wood, particleboard, cement, etc., have an open surface and require sealing to provide a unified surface for tape bonding. Common sealing materials include paint, varnish or other hard surface coatings. Fast drying 3M™ Rubber and Vinyl Spray 80 can also be used to unify the surface and improve the tape bond.

GLASS, STONE, CERAMIC AND RUBBER SURFACES

Glass, stone, ceramic or other siliceous materials are hydrophilic (water-loving) by nature. Normally, the hydrophilic nature makes pressure sensitive adhesive bond durability susceptible to change under high humidity or exposure to moisture. In basic terms, water vapor can undercut the tape bond and interfere with the normal adhesion forces. Silane coupling agents, added to the IPA/water cleaning solution, can help reduce the “water-loving” tendency of these surfaces and enhance the tape bond in high moisture environments.

COPPER, BRASS AND BRONZE SURFACES

Copper, brass, and bronze are prone to oxidation even after the tape is applied. To prevent a weakening of the bond, a lacquer or varnish should be applied to these surfaces. Be sure to test the tape bond to the sealer on a metal surface to verify good adhesion.

PVC AND RUBBER SURFACES

Flexible PVC (vinyl) contains plasticizers that can migrate into the tape and affect adhesion. 3M™ Scotch-Grip™ Plastic Adhesive 2262, thinned, can serve as a barrier to migration. Rubber materials (e.g. EPDM, neoprene) can have low surface energy and may also contain plasticizers and oils. These require the use of an adhesion promoter for stable bond strength. Test for compatibility with flexible PVC and rubber materials by aging bonded samples for a week at 150°F (66°C) and check for softening of the adhesive, discoloration or reduction in bond strength.

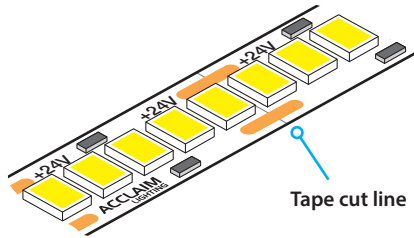
CUTTING AND CONNECTING THE TAPE

Flex One tapes are supplied with a fixed 3.28' (1m) feed cable (with bare tails). Once cut to size, the tape connections can be made by soldering.

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 as this will prevent correct operation and also void your warranty. Ensure the cut is made cleanly along the line.



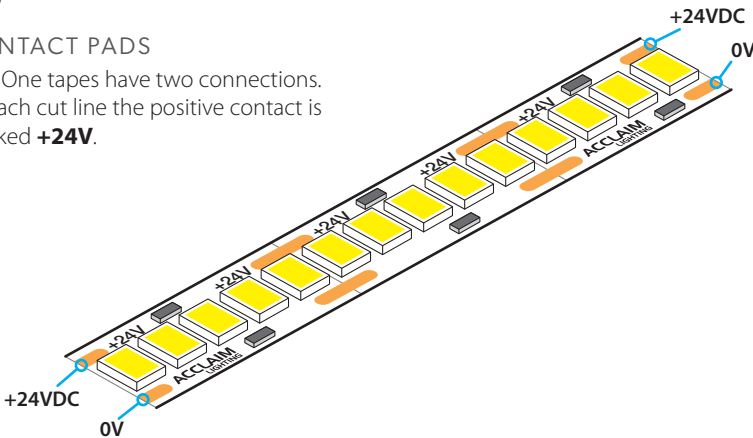
TO SOLDER THE TAPE

Once cuts are made to a Flex One tape, connections need to be made to the new sections. Either side of each cut line are bare copper contact pads where you can make solder connections.

Note: When soldering, minimize the time spent heating the tape to avoid damage to the nearby components.

CONTACT PADS

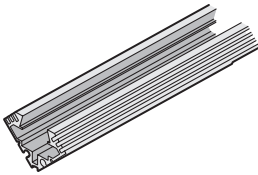
Flex One tapes have two connections. At each cut line the positive contact is marked **+24V**.



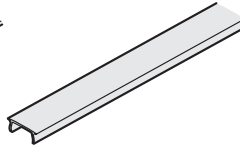
FLEX 45 DEGREE CHANNEL (FLX 45D)

This low profile channel holds the Flex One tape at 45 degrees to the mounting surface. The channel can be wall or ceiling mounted. Clear, opal and frosted lens options are available. For channel dimensions, see page 47.

Options



Flex 45 degree channel
(3.28'/1m or 6.56'/2m)
[FLX 45D]



Lenses (3.28'/1m or 6.56'/2m)
[Clear: FLX 45D CL]
[Frosted: FLX 45D FL]
[Opal: FLX 45D OL]



Mount clip
[FLX 45D MC]



End cap with hole
[FLX 45D ECH]



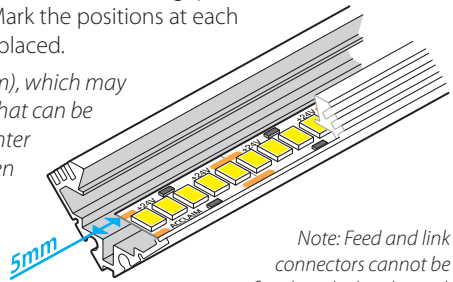
End cap
[FLX 45D EC]

TO FIT THE FLEX ONE TAPE

- 1 If necessary, cut the channel to the length required. Ensure that any resulting burrs are removed.
- 2 Ensure the tape mounting surface within the channel is completely dry, clean and free of grease. If cleaning is required, please see page 4 for details.
- 3 Determine the length of tape required. Leave at least a 5mm gap at each end to allow the end caps to be inserted. 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 Begin peeling the backing from the Flex One tape and carefully stick the Flex One tape into the channel, starting at the marked position.

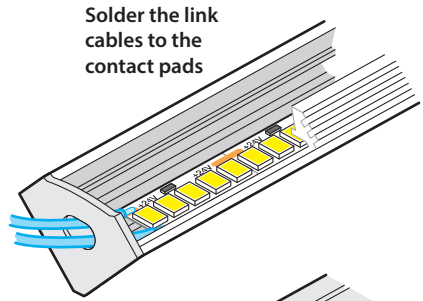
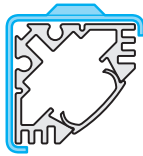


Note: Feed and link connectors cannot be fitted inside this channel.

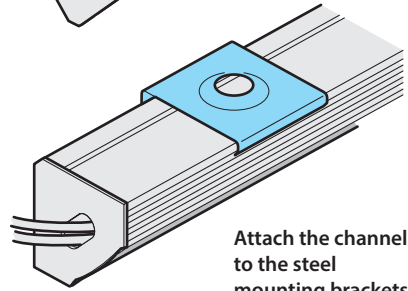
IMPORTANT: While pressing the Flex One tape into position, take care not to put excessive pressure on the components or connections.

TO SURFACE MOUNT

- 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 link cables through the end cap and carefully solder to the contact pads, if necessary (see page 6).
- 4 At the other end of the channel, fit a standard *End cap*.
- 5 Fit the required lens (see below).
- 6 Attach two or more *mount clips* to the mounting surface using screws appropriate to the surface type.
- 7 Clip the channel into the mounting brackets using the slots shown here:



Solder the link cables to the contact pads

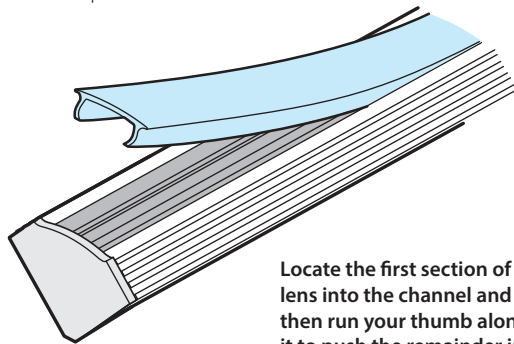
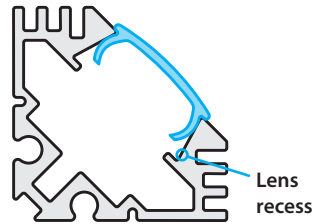


Attach the channel to the steel mounting brackets

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

TO FIT A 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 Insert one end of the lens against one of the end caps so that it locates into the 'Lens recess' within the channel (see right).
- 4 Once the first part of the lens has correctly located, run your thumb gently along the length of the lens to push the remainder into place.

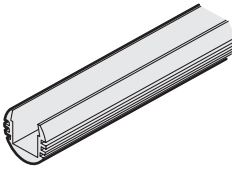


Locate the first section of lens into the channel and then run your thumb along it to push the remainder into place.

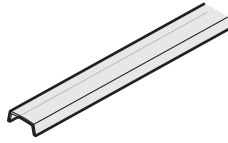
FLEX PENDANT CHANNEL (FLK PEN)

The Flex pendant channel can be mounted from fixed steel rods, stainless wire or against a flat surface. Conductive end caps or fasteners can be used to transfer power via the supportive wires or rods. Clear, opal and frosted lens options are available. For channel dimensions, see page 47.

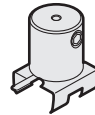
Options



Flex pendant channel
(3.28' / 1m)
[FLK PEN]



Lenses (3.28' / 1m)
[Clear: FLK MFC]
[Frosted: FLK MFL]
[Opal: FLK MOL]



Conductive fastener
[FLK PEN CF]



Zinc mounting bracket
[FLK ZMB]

Steel rod with threaded ends
[1.64' / 0.5m: FLK PEN SR05]
[3.28' / 1m: FLK PEN SR1]

Stainless steel wire
[3.28' / 1m:
FLK PEN SSW1]



End cap
[FLK PEN EC]



End cap with hole
[FLK PEN ECH]



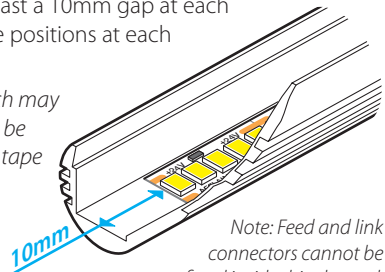
Conductive end cap
[FLK PEN CEC]

TO FIT THE FLEX ONE TAPE

- 1 If necessary, cut the channel to the length required. Ensure that any resulting burrs are removed.
- 2 Ensure the tape mounting surface within the channel is completely dry, clean and free of grease. If cleaning is required, please see page 4 for details.
- 3 Determine the length of tape required. Leave at least a 10mm gap at each end to allow the end caps to be inserted. 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 Begin peeling the backing from the Flex One tape and carefully stick the Flex One tape into the channel, starting at the marked position.

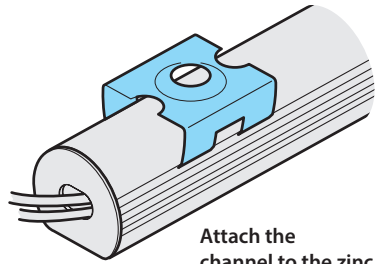
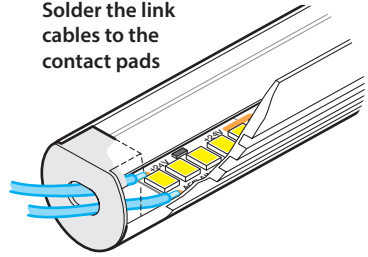


IMPORTANT: While pressing the Flex One tape into position, take care not to put excessive pressure on the components or connections.

TO SURFACE MOUNT

- 1 Fit the Flex One tape to the channel (see page 9).
- 2 At the end where the connection will take place, fit an *End cap with hole*.
- 3 Feed the link cables through the end cap and carefully solder to the contact pads, if necessary (see page 6).
- 4 At the other end of the channel, fit a standard *End cap*.
- 5 Fit the required lens (see page 12).
- 6 Attach two or more *Zinc mounting brackets* to the mounting surface using screws appropriate to the surface type.
- 7 Clip the pendant channel into the mounting brackets using the slot closest to the rounded back of the channel.

Solder the link cables to the contact pads



Attach the channel to the zinc mounting brackets

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

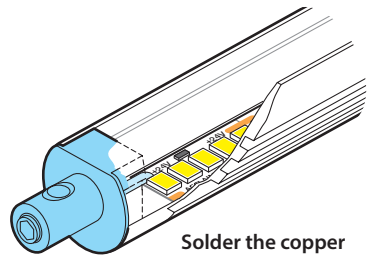
TO SUSPEND USING CONDUCTIVE END CAPS

- 1 Fit the Flex One tape to the channel (see page 9).
- 2 At each end, fit a *Conductive end cap*.
- 3 At each end, solder the copper tab of the conductive end cap to the tape contact pad with which it aligns (see page 6). One end must connect to the +24V pad while the other end links with the 0V pad.

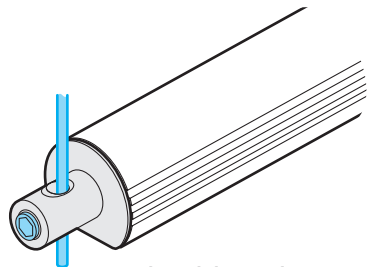
If the end of the Flex One tape is more than 11mm from the pendant channel edge you will need to use additional wire to bridge the gap between the copper tab and the contact pad.

Note: Ensure the copper tab (and additional wire) are fully insulated from the channel surface.

- 4 Make a note of the polarity of the connections at each end and fit the required lens (see page 12).
- 5 Drop the two steel wires/rods from their ceiling mounts and thread each into the holes within the conductive end caps. Double check that the polarities at each end match those supplied by the two steel wires/rods.
- 6 Establish the required height of the pendant channel and use a 3mm hex key to tighten the clamps so the channel is horizontal (using a spirit level) and fully secure.



Solder the copper tab to the Flex One contact pad



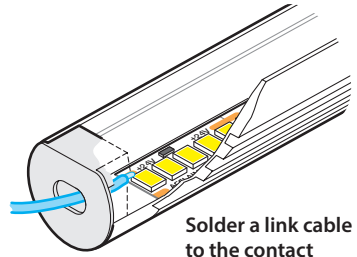
Thread the steel wire/rod and secure using a 3mm hex key

TO SUSPEND USING CONDUCTIVE FASTENERS

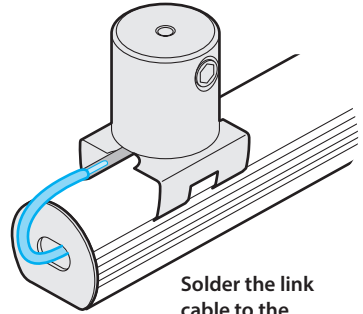
- 1 Fit the Flex One tape to the channel (see page 9).
- 2 At each end, fit an *End cap with hole*.
- 3 At each end, feed a link cable through the end cap and carefully solder to the contact pad (see page 6).

Note: One end must connect to the +24V pad while the other end links with the 0V pad.

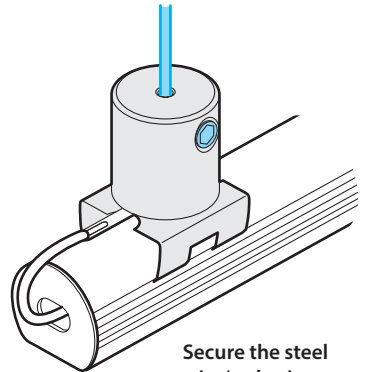
- 4 At each end, fit a *Conductive fastener* and solder the link cable to the copper tab.
- 5 Make a note of the polarity of the connections at each end and fit the required lens (see page 12).
- 6 Secure the two steel wires/rods to their ceiling mounts and thread each into the holes within the conductive fasteners. Double check that the polarities at each end match those supplied by the steel wires/rods.
- 7 Establish the required height of the pendant channel and use a 3mm hex key to tighten the clamps so the channel is horizontal (using a spirit level) and fully secure.



Solder a link cable to the contact pad at each end



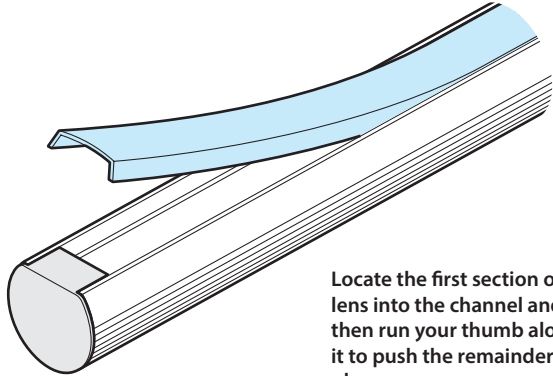
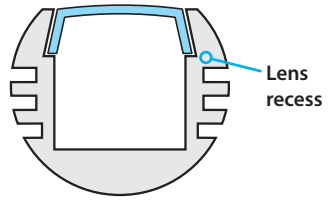
Solder the link cable to the copper tab of the conductive fastener



Secure the steel wire/rod using a 3mm hex key

TO FIT A 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 Insert one end of the lens against one of the end caps so that it locates into the 'Lens recess' within the channel (see right).
- 4 Once the first part of the lens has correctly located, run your thumb gently along the length of the lens to push the remainder into place.

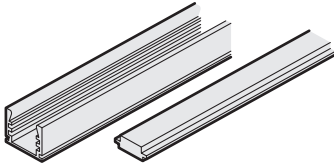


Locate the first section of lens into the channel and then run your thumb along it to push the remainder into place.

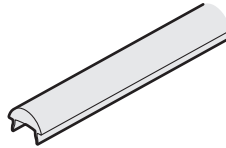
FLEX GRAZE CHANNEL (FLK GRZ)

The Flex graze channel is a low profile channel that, when used with its rounded lens produces a linear spread of light suitable for grazing nearby surfaces. The supplied mounting rail can be optionally used to alter the distance between the emitters and the lens and thus determine the resulting beam angle (the beam angle is 10° as standard if the mounting rail is not used). For channel dimensions, see page 47.

Options



Flex graze channel plus Mounting rail
(3.28' / 1m)
[FLK GRZ]



Lens
(3.28' / 1m)
[FLK GRZ L]



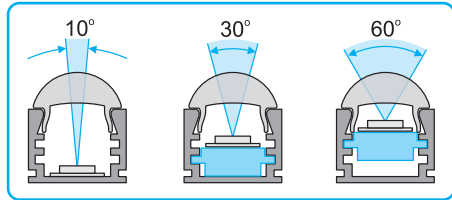
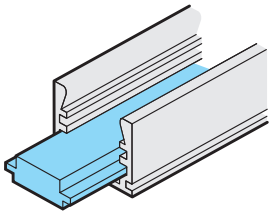
Zinc mounting bracket
[FLK ZMB]



End cap
[FLK GRZ EC]

TO FIT THE FLEX ONE TAPE

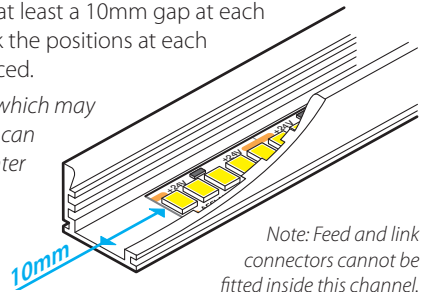
- 1 If necessary, cut the channel (and *Mounting rail*, if needed - remember to leave space for the end caps) to the length required. Ensure that any resulting burrs are removed.
- 2 [Optional step] Slide in the *Mounting rail* to determine the required beam angle:



- 3 Ensure the tape mounting surface within the channel is completely dry, clean and free of grease. If cleaning is required, please see page 4 for details.
- 4 Determine the length of tape required. Leave at least a 10mm gap at each end to allow the end caps to be inserted. 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.

- 5 Cut the tape to the nearest marked cutpoint.
- 6 Begin peeling the backing from the Flex One tape and carefully stick the Flex One tape into the channel, starting at the marked position.

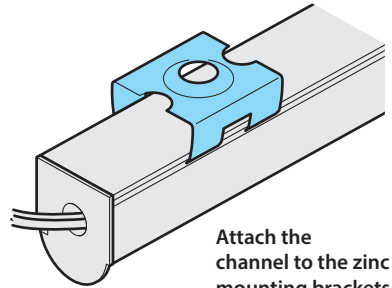
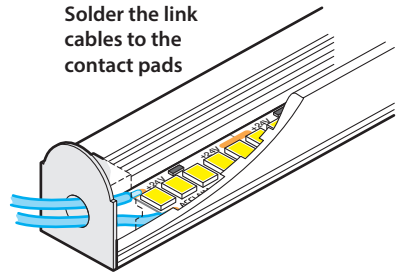


Note: Feed and link connectors cannot be fitted inside this channel.

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

TO SURFACE MOUNT

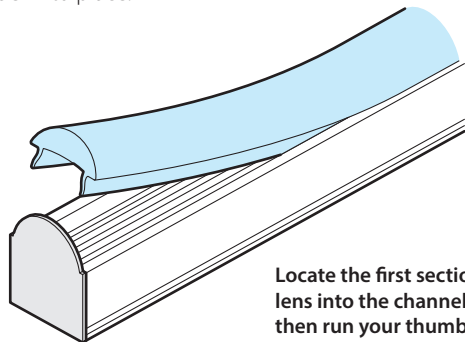
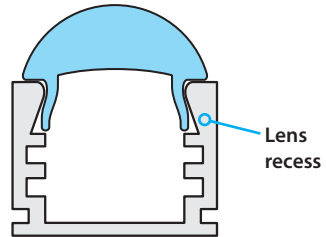
- 1 Fit the Flex One tape to the channel (see page 13).
- 2 Determine the size of hole required to pass the Flex One tape connection wires and drill a hole through one of the *End caps*.
- 3 At the end where the connection will take place, fit the drilled *End cap*.
- 4 Feed the link cables through the end cap and carefully solder to the contact pads, if necessary (see page 6).
- 5 At the other end of the channel, fit another *End cap*.
- 6 Fit the lens (see below).
- 7 Attach two or more *Zinc mounting brackets* to the mounting surface using screws appropriate to the surface type.
- 8 Clip the channel into the mounting brackets using the slots running along each side of the channel.



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

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 Insert one end of the lens against one of the end caps so that it locates into the 'Lens recess' within the channel (see right).
- 4 Once the first part of the lens has correctly located, run your thumb gently along the length of the lens to push the remainder into place.

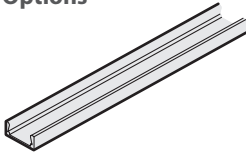


Locate the first section of lens into the channel and then run your thumb along it to push the remainder into place.

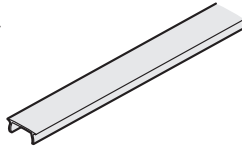
FLEX MINI CHANNEL (FLX MIN)

The Flex mini channel is a very low profile channel with minimal standoff from the mounting surface. A choice of three lenses provide varying light distributions while mounting is best handled using the steel mounting bracket options. For channel dimensions, see page 47.

Options



Flex mini channel
(3.28'/1m or 6.56'/2m)
[FLX MIN]



Lenses (3.28'/1m or 6.56'/2m)
[Clear: FLX MIN CL]
[Frosted: FLX MIN FL]
[Opal: FLX MIN OL]



Steel mounting bracket
[FLX SMB]



End cap
[FLX MIN EC]

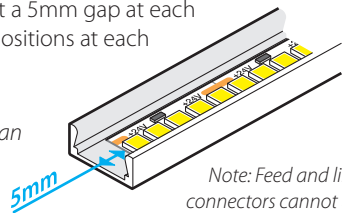


End cap
[FLX MIN ECH]

TO FIT THE FLEX ONE TAPE

- 1 If necessary, cut the channel (remember to leave space for the end caps) to the length required. Ensure that any resulting burrs are removed.
- 2 Ensure the tape mounting surface within the channel is completely dry, clean and free of grease. If cleaning is required, please see page 4 for details.
- 3 Determine the length of tape required. Leave at least a 5mm gap at each end to allow the end caps to be inserted. 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. If the section of Flex One tape you are using requires feed cables to be attached, it will be necessary to solder new connections as the Flex mini channel is too small to accommodate feed or link connectors. You will find it easier to solder the connections before fitting the tape into the Flex mini channel.



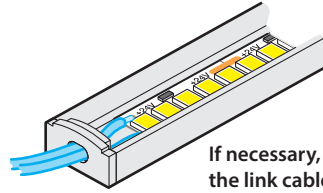
Note: Feed and link connectors cannot be fitted inside this channel.

- 4 Cut the tape to the nearest marked cutpoint.
- 5 Begin peeling the backing from the Flex One tape and carefully stick the Flex One tape into the channel, starting at the marked position.

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

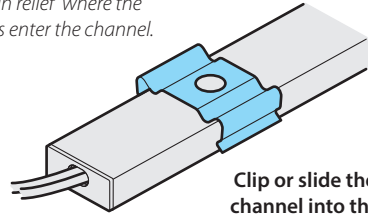
TO MOUNT THE CHANNEL

- 1 If necessary, carefully solder to the contact pads (see page 6).
- 2 Fit the Flex One tape to the channel (see page 15).
- 3 Attach two or more *steel mounting brackets* to the mounting surface using screws appropriate to the surface type.
- 4 Clip or slide the channel into the mounting brackets.



If necessary, solder the link cables to the contact pads

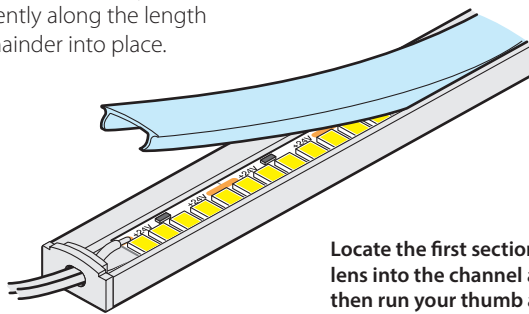
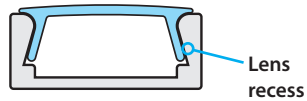
Note: Ensure sufficient strain relief where the cables enter the channel.



Clip or slide the channel into the mounting brackets

TO FIT A 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 Insert one end of the lens against one of the end caps so that it locates into the 'Lens recess' within the channel (see right).
- 4 Once the first part of the lens has correctly located, run your thumb gently along the length of the lens to push the remainder into place.

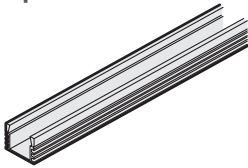


Locate the first section of lens into the channel and then run your thumb along it to push the remainder into place.

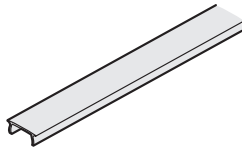
FLEX MINI SQUARE CHANNEL (FLX MSP)

The Flex mini square channel is a low profile channel with a square overall cross section. A choice of three lenses provide varying light distributions while mounting is best achieved using the steel mounting bracket options. For channel dimensions, see page 47.

Options



Flex mini square channel
(3.28'/1m or 6.56'/2m)
[FLX MSP]



Lenses (3.28'/1m or 6.56'/2m)
[Clear: FLX MIN CL]
[Frosted: FLX MIN FL]
[Opal: FLX MIN OL]



Steel mounting bracket
[FLX MSP SMB]



End cap
[FLX MSP EC]



End cap
[FLX MSP ECH]

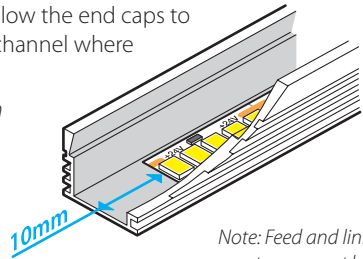


Mount clip
[FLX MSP MC]

TO FIT THE FLEX ONE TAPE

- 1 If necessary, cut the channel (remember to leave space for the end caps) to the length required. Ensure that any resulting burrs are removed.
- 2 Ensure the tape mounting surface within the channel is completely dry, clean and free of grease. If cleaning is required, please see page 4 for details.
- 3 Determine the length of tape required. Leave at least a 10mm gap (5mm if using the end cap without a hole) at each end to allow the end caps to be inserted. 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. If the section of Flex One tape you are using requires feed cables to be attached, it will be necessary to solder new connections as the Flex mini channel is too small to accommodate feed or link connectors. You will find it easier to solder the connections before fitting the tape into the channel.



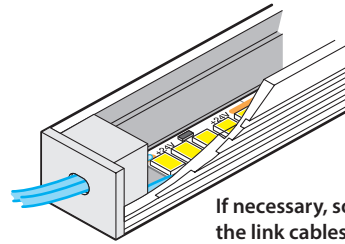
Note: Feed and link connectors cannot be fitted inside this channel.

- 4 Cut the tape to the nearest marked cutpoint.
- 5 Begin peeling the backing from the Flex One tape and carefully stick the Flex One tape into the channel, starting at the marked position.

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

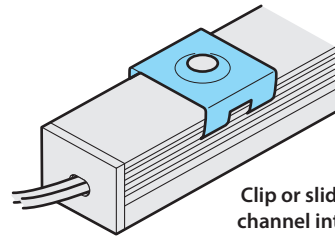
TO MOUNT THE CHANNEL

- 1 If necessary, carefully solder to the contact pads (see page 6).
- 2 Fit the Flex One tape to the channel (see page 15).
- 3 Attach two or more *steel mounting brackets* to the mounting surface using screws appropriate to the surface type.
- 4 Clip or slide the channel into the mounting brackets.



If necessary, solder the link cables to the contact pads

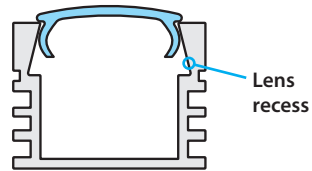
Note: Ensure sufficient strain relief where the cables enter the channel.



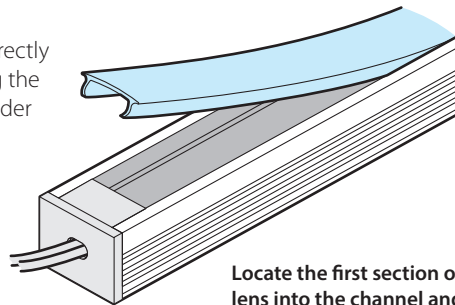
Clip or slide the channel into the mounting brackets

TO FIT A 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 Insert one end of the lens against one of the end caps so that it locates into the 'Lens recess' within the channel (see right).
- 4 Once the first part of the lens has correctly located, run your thumb gently along the length of the lens to push the remainder into place.



Lens recess

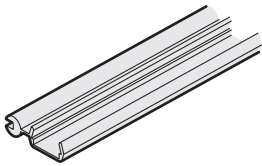


Locate the first section of lens into the channel and then run your thumb along it to push the remainder into place.

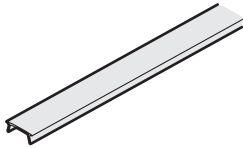
FLEX SWIVEL CHANNEL (FLK SWI)

This anodized aluminum channel allows a single strip of Flex One tape to be mounted close to a surface and angled between 0 and 90° to suit your illumination purposes. Clear and frosted lens options are available. For channel dimensions, see page 48.

Options



Flex swivel channel
(3.28' / 1m)
[FLK SWI]



Lenses (3.28' / 1m)
[Clear: FLK MFC]
[Frosted: FLK MFL]
[Opal: FLK MOL]



Swivel mounting bracket
[SWI MB]



End cap
[FLK SWI EC]

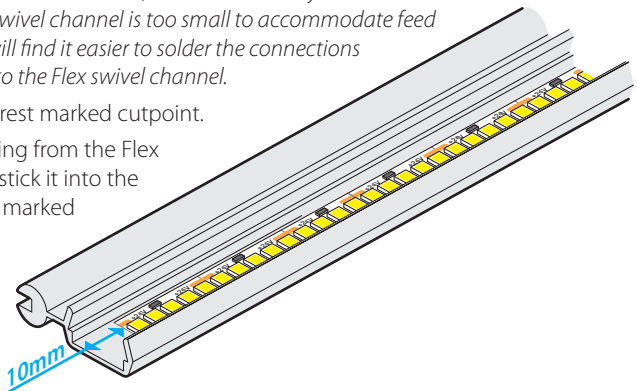
TO FIT THE FLEX ONE TAPE

- 1 If necessary, cut the channel (remember to leave space for the end caps) to the length required. Ensure that any resulting burrs are removed.
- 2 Ensure the tape mounting surface within the channel is completely dry, clean and free of grease. If cleaning is required, please see page 4 for details.
- 3 Determine the length of tape required. Leave at least a 10mm gap at each end to allow the end caps to be inserted. 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. If the section of Flex One tape you are using requires feed cables to be attached, it will be necessary to solder new connections as the Flex swivel channel is too small to accommodate feed or link connectors. You will find it easier to solder the connections before fitting the tape into the Flex swivel channel.

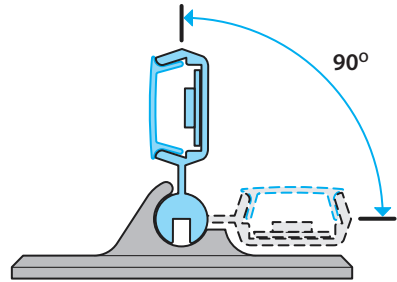
- 4 Cut the tape to the nearest marked cutpoint.
- 5 Begin peeling the backing from the Flex One tape and carefully stick it into the channel, starting at the marked position.

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



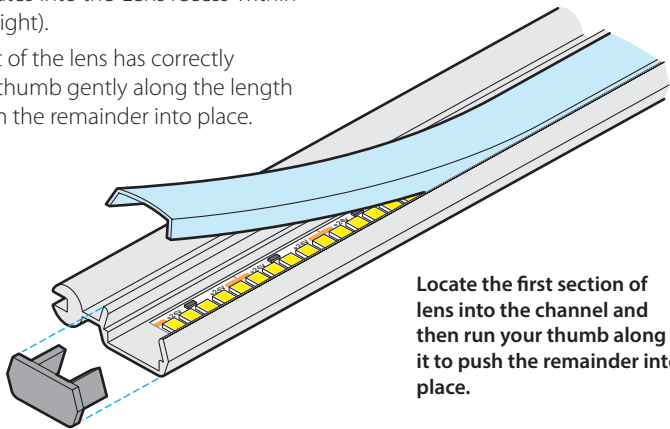
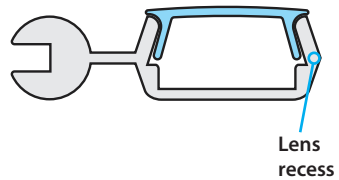
TO MOUNT THE CHANNEL

- 1 If necessary, carefully solder to the contact pads (see page 6).
- 2 Fit the Flex One tape to the channel (see page 19).
- 3 Attach two, preferably three, *Swivel mounting brackets* to the mounting surface using either glue, adhesive pads or screws appropriate to the surface type.
- 4 Clip the channel into the swivel mounting brackets.
- 5 Adjust the angle as required:



TO FIT A LENS

- 1 Measure the exact channel length to determine the required length of lens.
- 2 If required, carefully cut the lens to length. Ensure that any resulting burrs are removed.
- 3 Fit both end caps.
- 4 Insert one end of the lens against one of the end caps so that it locates into the 'Lens recess' within the channel (see right).
- 5 Once the first part of the lens has correctly located, run your thumb gently along the length of the lens to push the remainder into place.

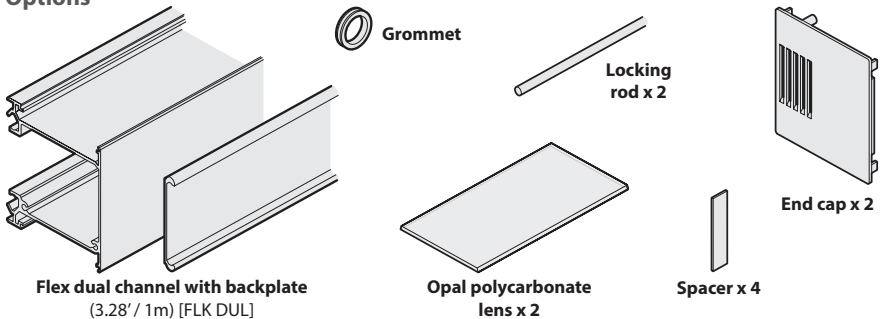


Locate the first section of lens into the channel and then run your thumb along it to push the remainder into place.

FLEX DUAL CHANNEL (FLK DUL)

The smart anodized aluminum Flex Dual Channel allows you to mount three parallel runs of Flex One tape and direct their output in opposing directions (usually up and down). Opal polycarbonate lenses help to homogenize the output. For channel dimensions, see page 48.

Options



TO FIT THE FLEX ONE TAPE(S)

- 1 If necessary, cut the channel to the length required. Ensure that any resulting burrs are removed. *Note: The Flex Dual end caps do not encroach upon the tape areas, so you can fit the tapes edge to edge, if required. However, make suitable allowances for your supply connections to the tape; also a hole will need to be drilled through each tape mounting surface to the central void to allow access for the supply cabling.*
- 2 Ensure the tape mounting surfaces on the upper and lower surfaces of the channel are completely dry, clean and free of grease. If cleaning is required, please see page 4 for details.

- 3 Determine the length of tapes required. Mark the positions at each end of the channel where the tapes will be placed. Up to three Flex One tapes can be mounted in parallel on the upper and lower surfaces.

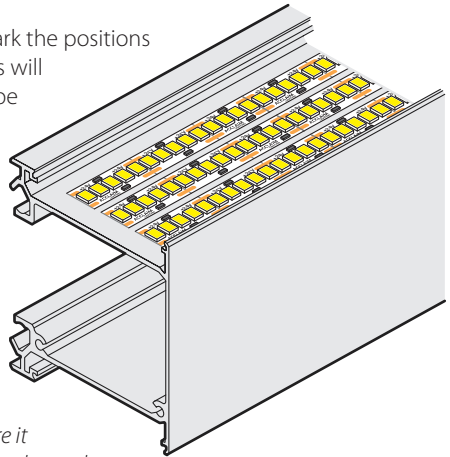
Notes:

Depending on the length of the Flex Dual channel and the number of Flex One tape runs, ensure that the maximum (serial) run of any one circuit does not exceed the maximum of 16.4' (5m).

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. If solder connections are being made, you will find it easier to solder the connections before fitting the tape onto the Flex swivel channel (due to heat dissipation).

- 4 Cut the tapes to their nearest marked cutpoints.
- 5 Begin peeling the backing from the Flex One tape and carefully stick it into the channel, starting at the marked position.

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

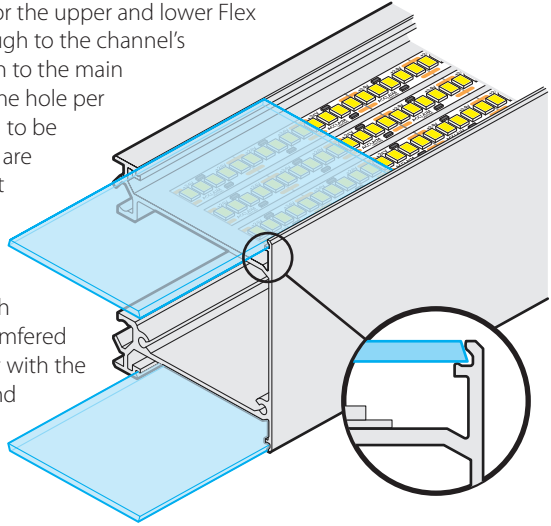


TO MOUNT A FLEX DUAL CHANNEL

- 1 Survey the mounting area and determine the entry point for the supply cabling and the load bearing capacity/construction of the wall (i.e. drywall, brick, etc).
- 2 If necessary, cut the main channel, backplate and polycarbonate lenses to suit the required length - all of these items should be exactly the same lengths.

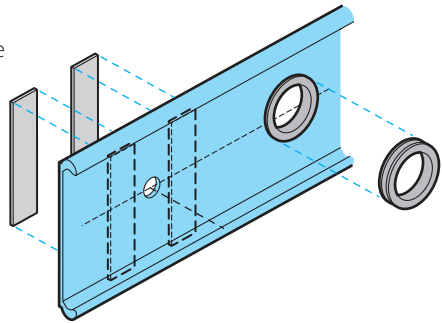
- 3 Ensure that the supply cabling for the upper and lower Flex One tape runs are brought through to the channel's central void ready for connection to the main incoming connection. At least one hole per tape mounting surface will need to be drilled through - ensure all burrs are removed and for best practise, fit suitable grommets to guard against cable damage.

- 4 Once all tape connections have been made and brought through to the central void, align the chamfered edges of each *Polycarbonate lens* with the grooves located on the upper and lower surfaces of the channel. Slide the lenses all of the way in until their edges align with the channel.



- 5 Drill a mounting hole at each end of the *Backplate* (at a diameter to suit your chosen fixing screws) and also a $\text{\O}0.71''$ (18mm) hole that will align with the supply cabling.

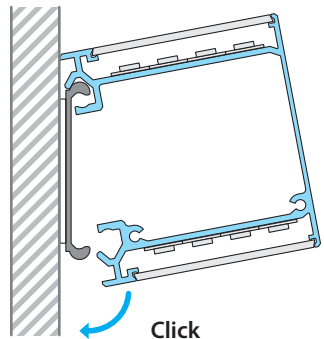
- 6 Remove any burrs, insert the supplied grommet into the larger hole and stick the supplied spacers onto the rear of the backplate, one each side of both mounting holes.



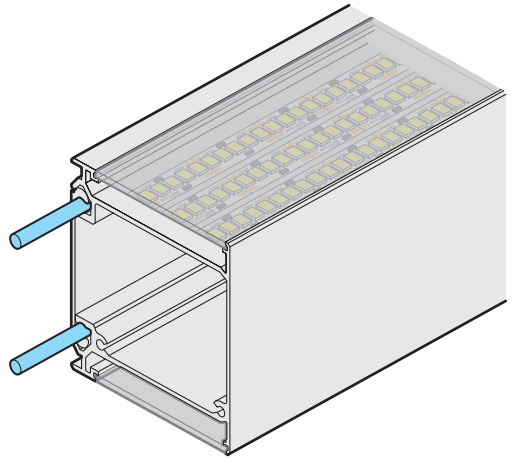
- 7 Feed the supply cabling through the grommet and secure the backplate to the mounting surface.

- 8 Offer up the channel to the backplate and make the necessary connections to the supply cabling within the central void in the channel.

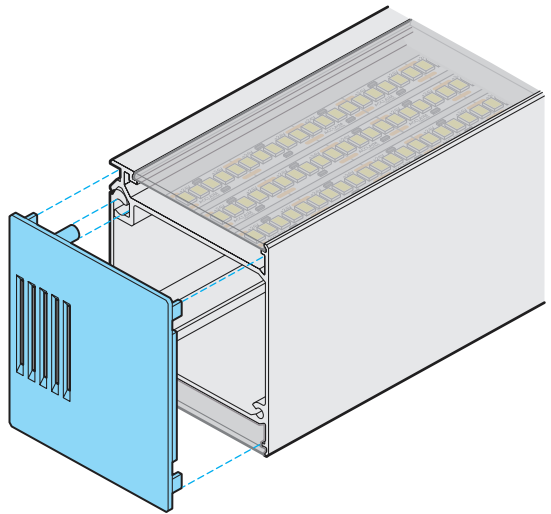
- 9 Once all connections are tested, incline the channel back slightly along its axis and engage the upper slot (at the rear) of the channel with the top surface of the backplate. Rotate the channel down so that its lower slot engages with the bottom surface of the backplate - you should hear a 'click' as the two items fully lock together.



- 10 Cut the supplied two *Locking rods* so that they are roughly 1.38" (35mm) shorter than the channel (this will provide sufficient space for the end cap tabs). Insert the rods into the circular voids that are formed between the backplate and the slots of the channel.



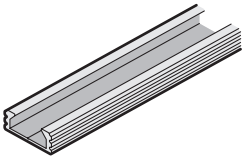
- 11 Align each *End cap* with the channel (the five vents on each cap go closest to the mounting surface) and carefully attach them so that all of their various tabs engage correctly with the appropriate parts of the channel.



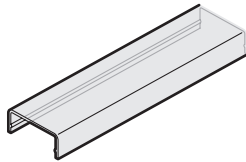
FLEX CHANNEL - LOW PROFILE (FLX444)

This low profile option is ideal for mounting within tight spaces. There is a choice of clear, frosted or opal lenses. For channel dimensions, see page 47.

Options

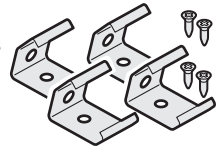


Flex channel low profile
(4' / 1.21m)
[FLX444]

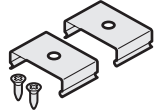


Low profile lenses (4' / 1.21m)
[Clear: FLX LP CL4]
[Frosted: FLX LP FL4]
[Opal: FLX OL4]

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



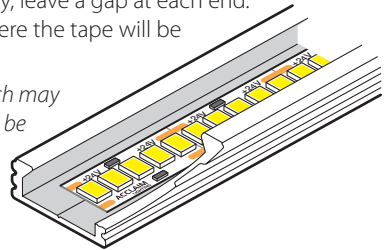
Flat brackets/joiners plus 2.5 x 10mm wood screws
[FLX111]



TO FIT THE FLEX ONE TAPE

- 1 If necessary, cut the channel to the length required. Ensure that any resulting burrs are removed.
- 2 Ensure the tape mounting surface within the channel is completely dry, clean and free of grease. If cleaning is required, please see page 4 for details.
- 3 Determine the length of tape required. If necessary, leave a gap at each end. 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.



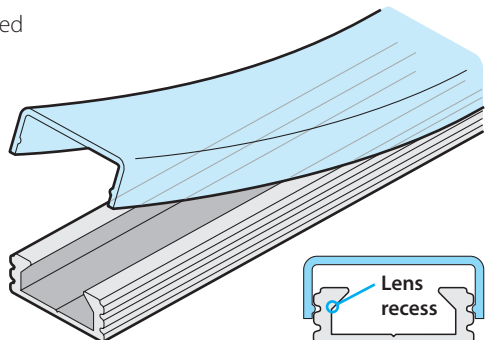
- 4 Cut the tape to the nearest marked cutpoint.
- 5 *Note: If you are attaching the channel directly to a surface, see 'To surface mount directly' on page 25 before sticking the tape in place.*

Begin peeling the backing from the Flex One tape and carefully stick the Flex One tape into the channel, starting at the marked position.

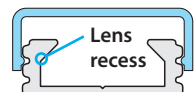
IMPORTANT: While pressing the Flex One tape into position, take care not to put excessive pressure on the components or connections.

TO FIT A LENS

- 1 Measure the exact length of lens required between each end of the channel.
- 2 Carefully cut the lens to length. Ensure that any resulting burrs are removed.
- 3 Place one end of the 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.



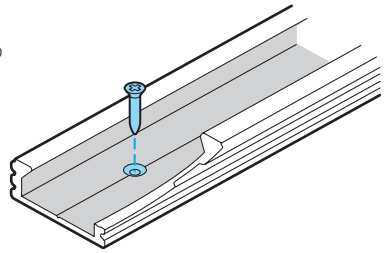
Note: Lenses are UV stabilized.



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 24).
- 5 Carefully solder to the contact pads, if necessary (see page 6).

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

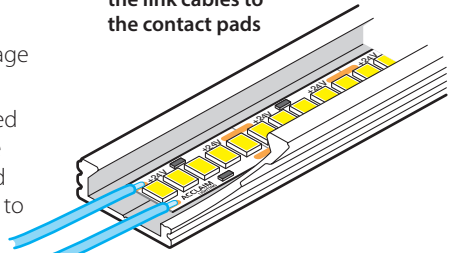


TO SURFACE MOUNT USING BRACKETS

- 1 If necessary, carefully solder to the contact pads or use a feed/link cable (see page 6).
- 2 Fit the Flex One tape to the channel (see Page 24).
- 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.

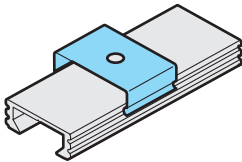
The angled bracket can be used in either of two orientations to provide an angle of either 30 or 45 degrees to the mounting surface (as shown below).

If necessary, solder the link cables to the contact pads

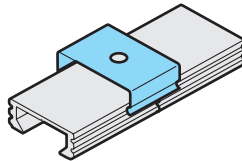


Note: Ensure sufficient strain relief where the cables enter the channel.

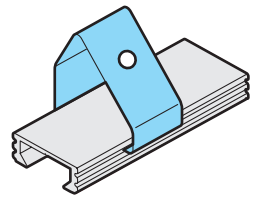
- 4 Clip the channel into the mounting brackets:



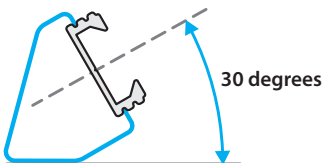
Attaching a flat bracket



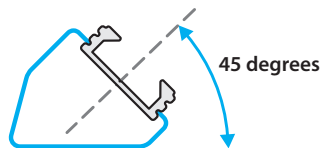
Using a flat bracket to join two channels



Attaching an angled bracket



30 degrees



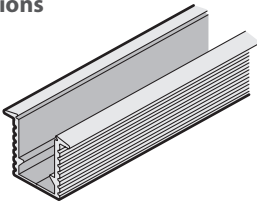
45 degrees

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

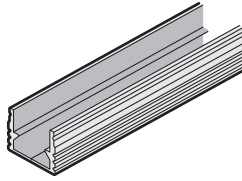
FLEX CHANNEL - RECESSED/TALL (FLX777/888)

These two options suit varying installation requirements: A recessed channel for concealment within surfaces and a tall profile channel that reduces light spill. These two channels have a choice of clear, frosted or opal lenses. For channel dimensions, see page 47.

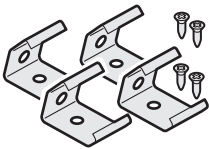
Options



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

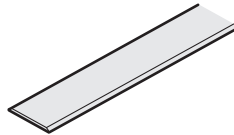
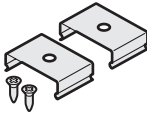


Flex channel tall profile
(4' / 1.21m)
[FLX888]

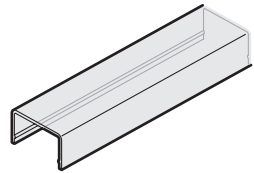


Angled brackets plus 2.5 x 10mm wood screws
[FLX113]

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



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



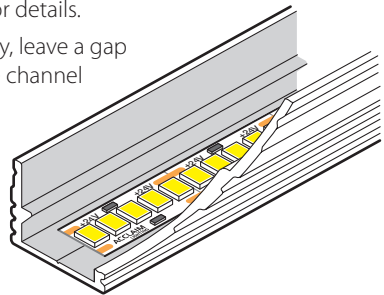
Tall profile lenses (4' / 1.21m)
[Clear: FLX825]
[Frosted: FLX813]
[Opal: FLX801]

TO FIT THE FLEX ONE TAPE

- 1 If necessary, cut the channel to the length required. Ensure that any resulting burrs are removed.
- 2 Ensure the tape mounting surface within the channel is completely dry, clean and free of grease. If cleaning is required, please see page 4 for details.
- 3 Determine the length of tape required. If necessary, leave a gap at each end. 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 *Note: If you are attaching the channel directly to a surface, see 'To surface mount directly' on page 27 before sticking the tape in place.*



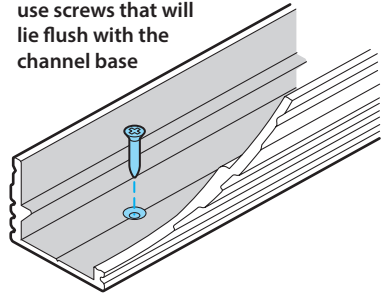
Begin peeling the backing from the Flex One tape and carefully stick the Flex One tape into the channel, starting at the marked position.

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

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 26).
- 5 Carefully solder to the contact pads, if necessary (see page 6).

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

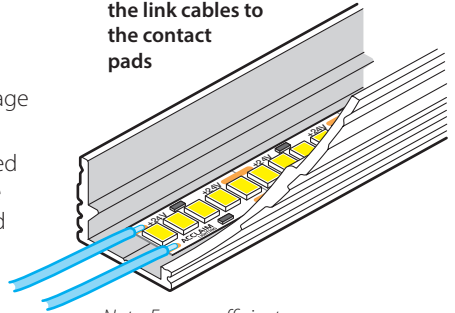


TO SURFACE MOUNT USING BRACKETS

- 1 If necessary, carefully solder to the contact pads or use a feed/link cable (see page 6).
- 2 Fit the Flex One tape to the channel (see Page 26).
- 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.

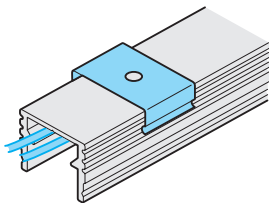
The angled bracket can be used in either of two orientations to provide an angle of either 30 or 45 degrees to the mounting surface (as shown below).

If necessary, solder the link cables to the contact pads

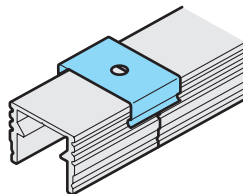


Note: Ensure sufficient strain relief where the cables enter the channel.

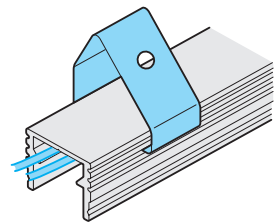
- 4 Clip the channel into the mounting brackets:



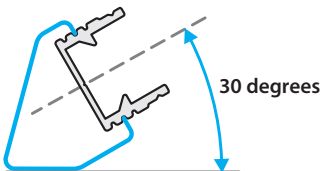
Attaching a flat bracket



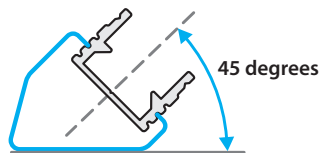
Using a flat bracket to join two channels



Attaching an angled bracket



30 degrees



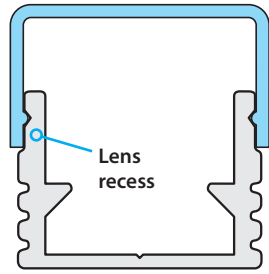
45 degrees

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

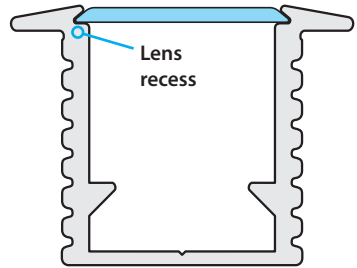
TO FIT A LENS

- 1 Measure the exact length of 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 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 lens into the 'Lens recess' within the channel (see right). Then slide the remaining lens into the recess.

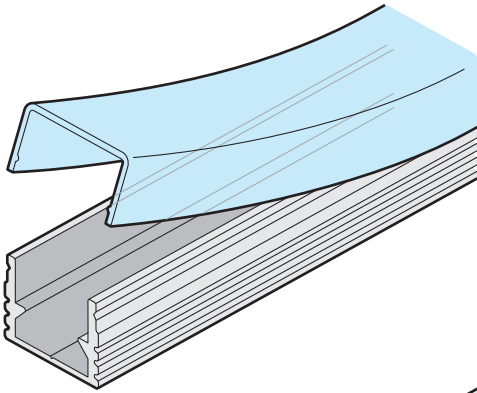
Note: FLX777 and FLX888 channel lenses are UV stabilized.



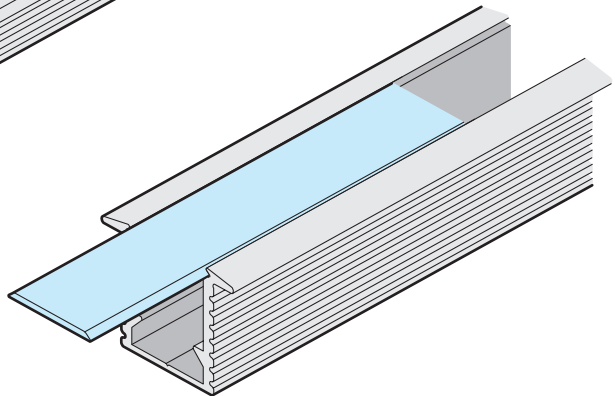
Tall profile
[FLX888]



Recessed
[FLX777]



Tall profile
[FLX888]

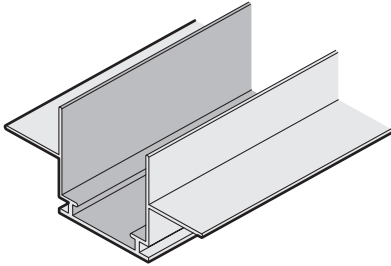


Recessed
[FLX777]

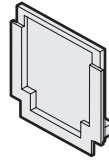
FLEX DRYWALL CHANNEL (FLK DWM/DWC/DWF)

An adaptable system of channels for use with drywall installations. The main FLK DWM mount can be pre-installed during first fix while a choice of two inner channels (containing the Flex One tape plus connections) can be added later. Alternatively, a channel can be used alone and be installed directly on the drywall surface using simple springs. A choice of clear or frosted lenses are available. For channel dimensions, see page 48.

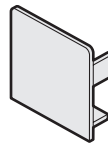
Options



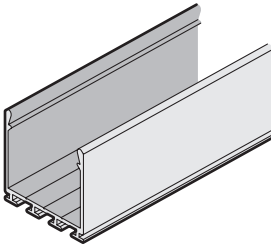
Flex drywall mount for 1/2" (12.5mm) panels
(3.28' / 1m)
[FLK DWM]



Mount end cap
[FLK DWM EC]



Channel end cap
[FLK DWC EC]



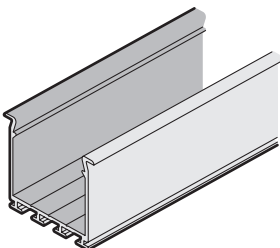
Flex drywall channel
(3.28' / 1m)
[FLK DWC]



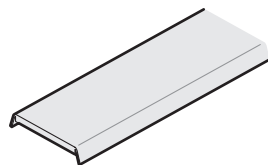
Surface spring
[FLK DWC SS]



Mounting clip
[FLK DWM CLIP]



Flex drywall channel with flange
(3.28' / 1m)
[FLK DWF]



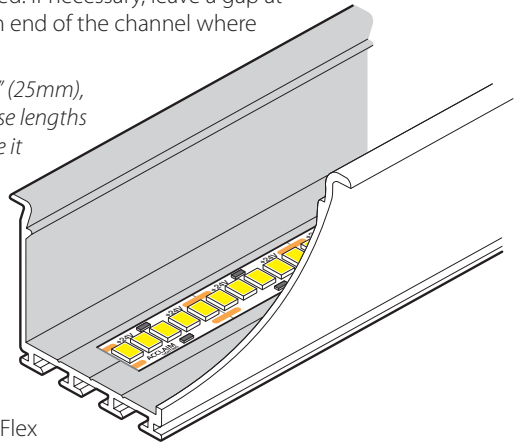
Lenses (3.28' / 1m)
[Clear: FLK DCL]
[Frosted: FLK DFL]

TO FIT THE FLEX ONE TAPE

- 1 If necessary, cut the channel to the length required. Ensure that any resulting burrs are removed.
- 2 Ensure the tape mounting surface within the channel is completely dry, clean and free of grease. If cleaning is required, please see page 4 for details.
- 3 Determine the length of tape required. If necessary, leave a gap at each end. 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.

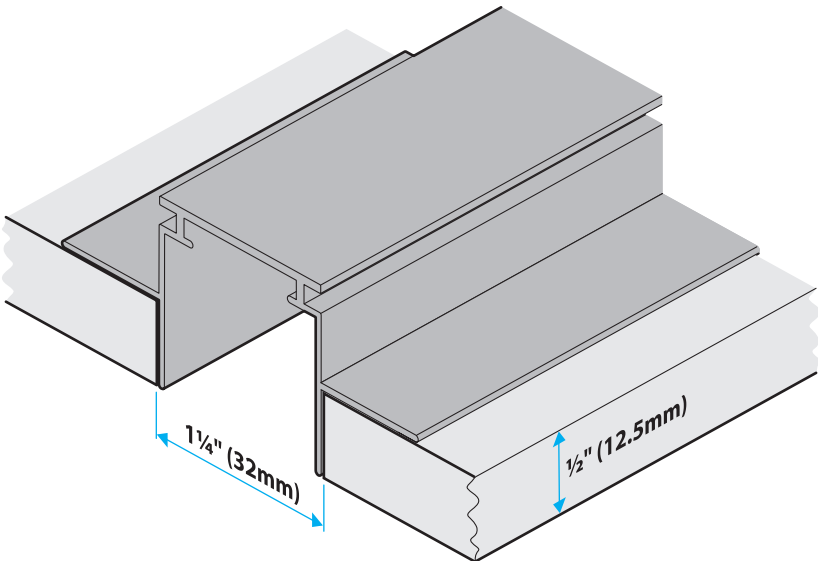
- 4 Cut the tape to the nearest marked cutpoint.
- 5 If necessary, carefully solder to the contact pads or use a feed/link cable (see page 6).
- 6 Begin peeling the backing from the Flex One tape and carefully stick the Flex One tape into the channel, starting at the marked position.



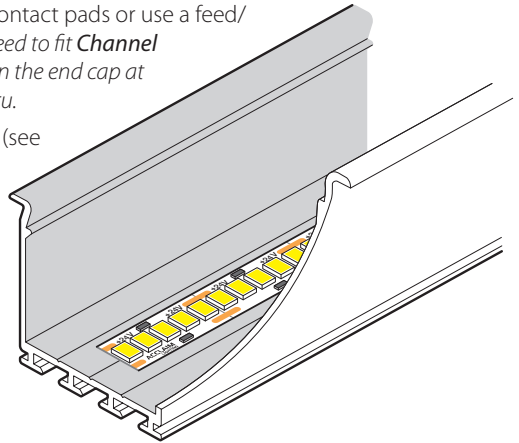
IMPORTANT: While pressing the Flex One tape into position, take care not to put excessive pressure on the components or connections.

TO RECESS A CHANNEL WITHIN A DRYWALL CEILING

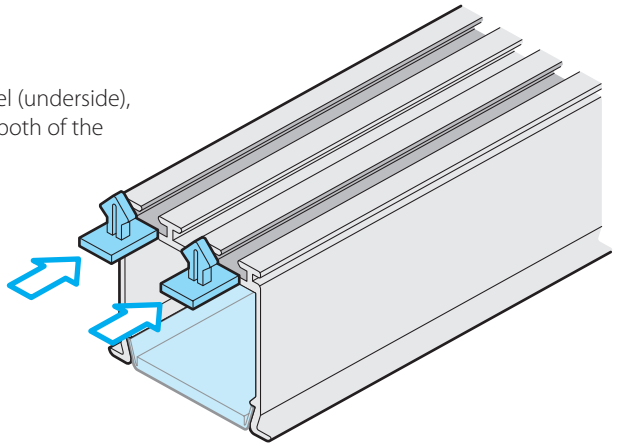
- 1 Make a gap within the drywall ceiling panels (measuring $1\frac{1}{4}$ " / 32mm wide x the length of the channel). Place the *Flex drywall mount* into the gap so the wings of the mount rest on the ceiling panels. *Note: If required, fit Mount end caps at each end of the mount.*



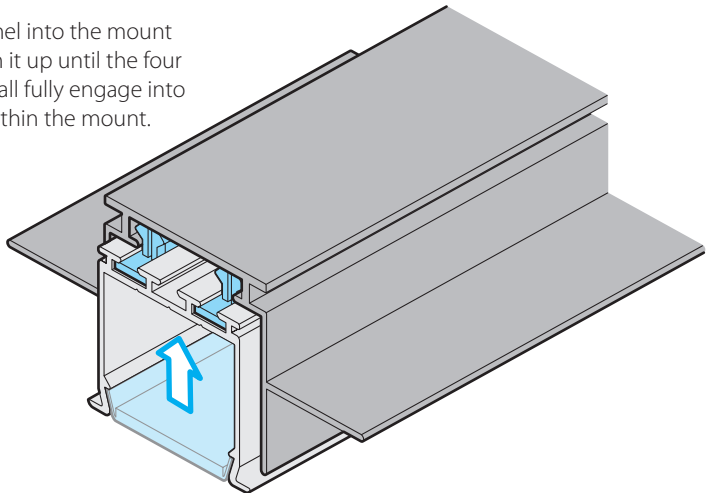
- 2 If necessary, carefully solder to the contact pads or use a feed/link cable (see page 6). *Note: If you need to fit **Channel end caps**, you will need to drill a hole in the end cap at one end to allow the cables to pass thru.*
- 3 Fit the Flex One tape to the channel (see page 30).
- 4 Fit the required lens (see page



- 5 At each end of the channel (underside), insert *Mounting clips* into both of the outer slots.

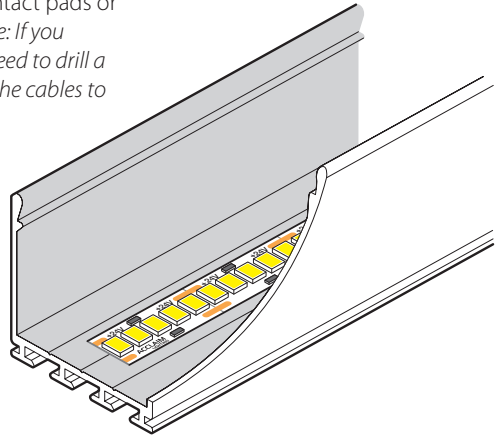


- 6 Insert the channel into the mount and gently push it up until the four mounting clips all fully engage into the main slot within the mount.

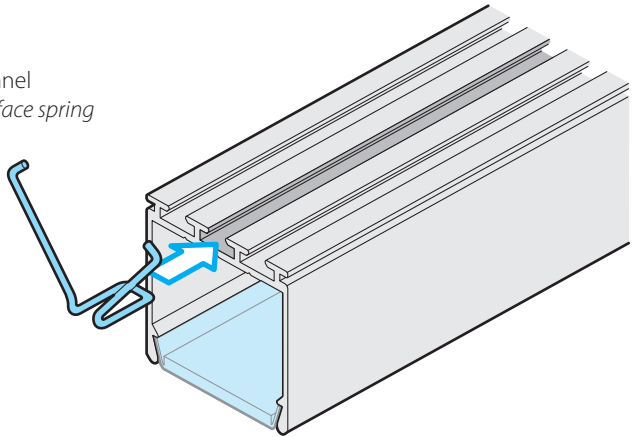


TO SURFACE MOUNT A CHANNEL ON A DRYWALL CEILING

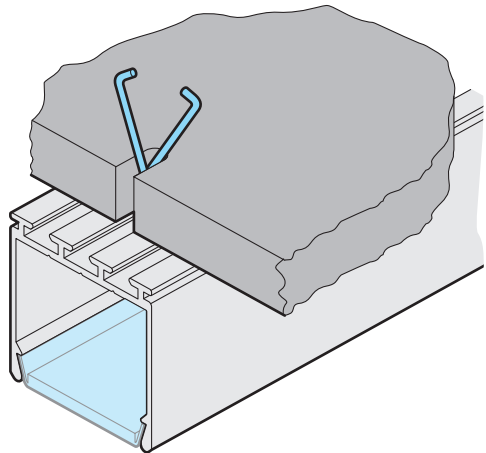
- 1 If necessary, carefully solder to the contact pads or use a feed/link cable (see page 6). *Note: If you need to fit **Channel end caps**, you will need to drill a hole in the end cap at one end to allow the cables to pass thru.*
- 2 Fit the Flex One tape to the channel (see page 30).
- 3 Fit the required lens (see page 33).



- 4 At each end of the channel (underside), insert a *Surface spring* into the center slot.

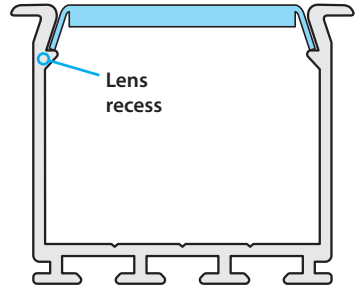


- 5 Measure the distance between the two springs and in the ceiling panels make two small holes to accommodate the springs.
- 6 At each end of the channel, squeeze the springs and insert them into the holes in the ceiling panel. Once inside, the springs should open out to keep the channel securely in position.

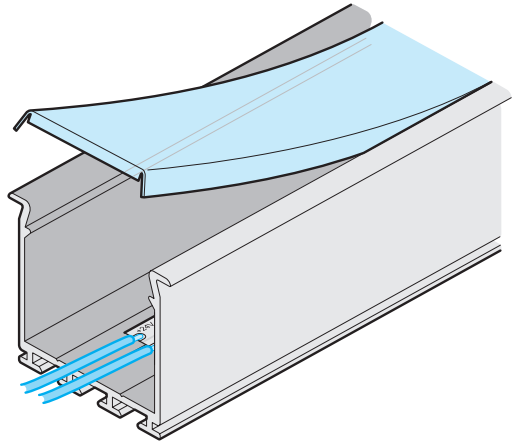


TO FIT A LENS

- 1 Measure the exact length of lens required between the ends of the channel.
- 2 Carefully cut the lens to length. Ensure that any resulting burrs are removed.
- 3 Insert one end of the lens so that it locates into the 'Lens recess' within the channel (see right).
- 4 Once the first part of the lens has correctly located, run your thumb gently along the length of the lens to push the remainder into place.



Locate the first section of lens into the channel and then run your thumb along it to push the remainder into place.



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.*

Length	Flex One SO		Flex One HO	
	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)

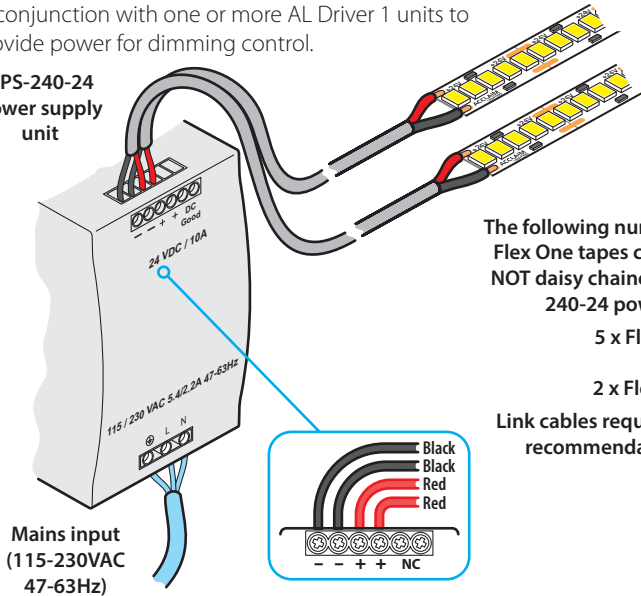
In all cases, ensure the voltage drop at the fixture end of the link cable is no greater than 9% (2.16V) of the original 24VDC supply.

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.

APS-240-24 power supply unit



Mains input
(115-230VAC
47-63Hz)

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:

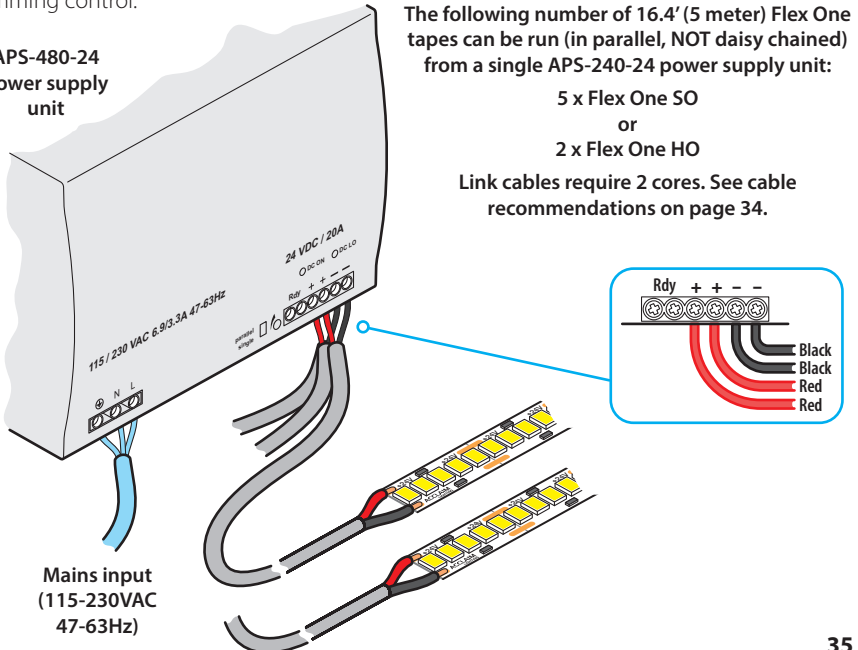
5 x Flex One SO
or
2 x Flex One HO

Link cables require 2 cores. See cable recommendations on page 34.

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.

APS-480-24 power supply unit



Mains input
(115-230VAC
47-63Hz)

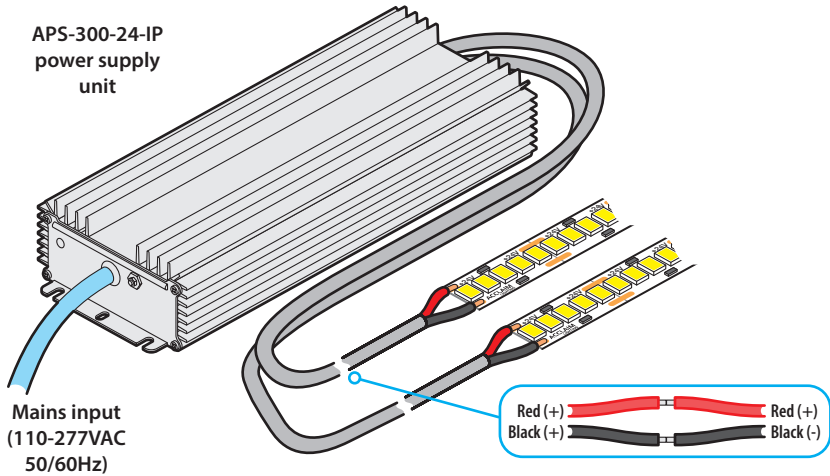
The following number of 16.4' (5 meter) Flex One tapes can be run (in parallel, NOT daisy chained) from a single APS-480-24 power supply unit:

5 x Flex One SO
or
2 x Flex One HO

Link cables require 2 cores. See cable recommendations on page 34.

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 34.

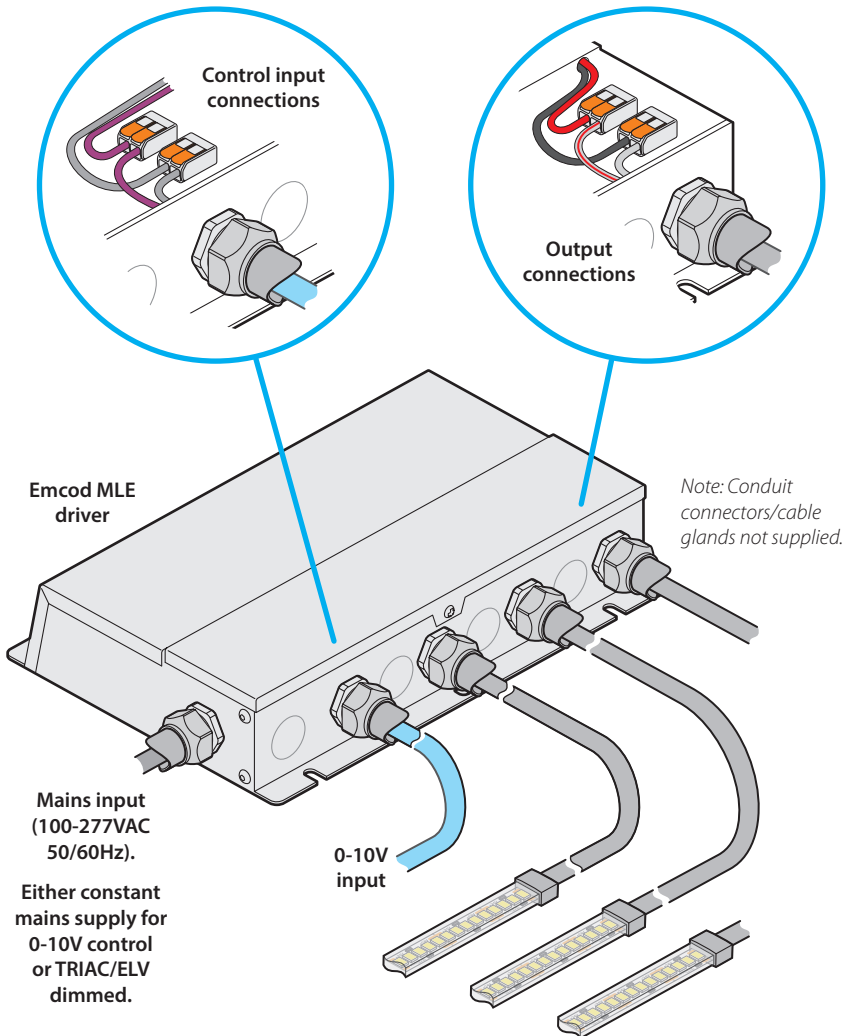
MLE 24VDC DIMMABLE DRIVER (0-10V OR TRIAC/ELV CONTROL)

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

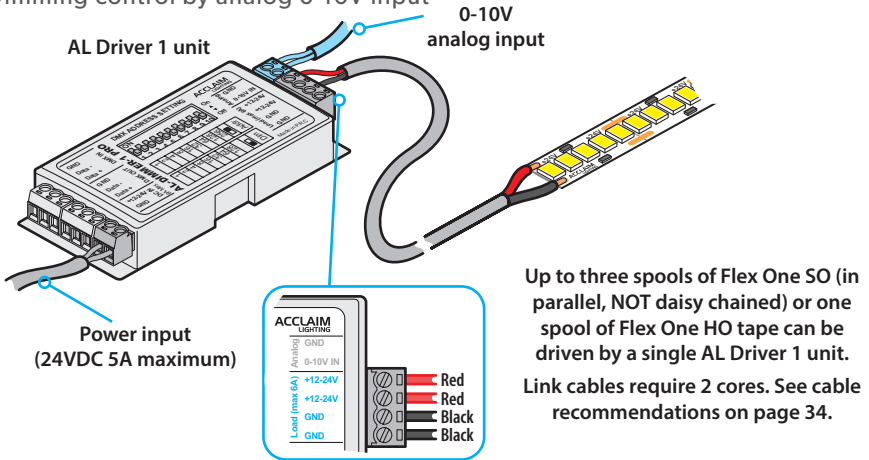
- MLE96 [part #: MLE96-24DC-UD] SO: 2 x 16.4' (5m) or HO: 1 x 16.4' (5m) maximum
- MLE192 [part #: MLE192-24DC-UD] SO: 4 x 16.4' (5m) or HO: 2 x 16.4' (5m) maximum
- MLE288 [part #: MLE288-24DC-UD] SO: 6 x 16.4' (5m) or HO: 3 x 16.4' (5m) maximum



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

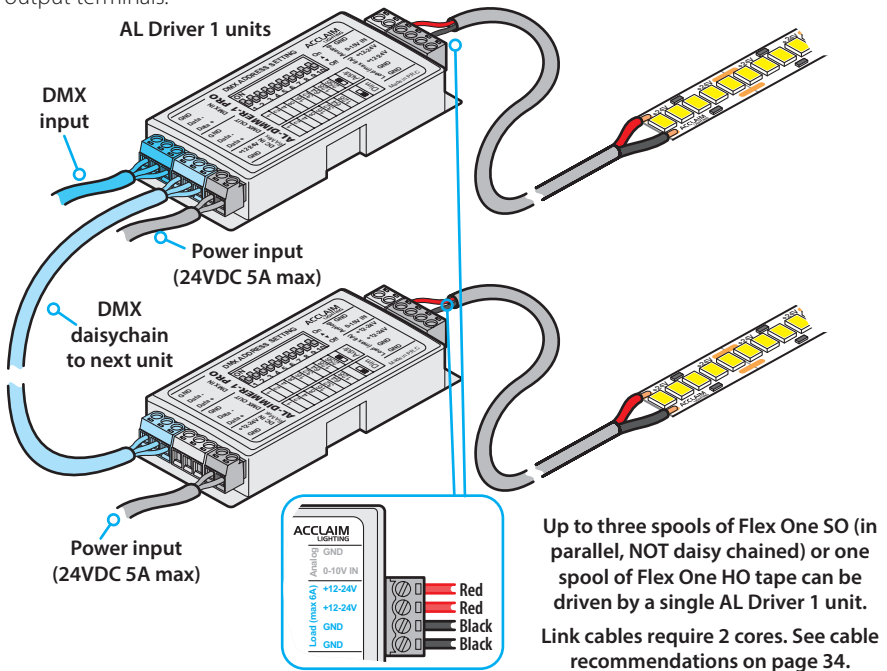
This compact unit measures just 3.5" x 1.6" x 0.8" and provides dimming control for Flex One tapes from either analog 0-10V **or** digital DMX control inputs. The AL Driver 1 unit requires a 24VDC power supply (such as the Acclaim Lighting APS-240-24) and can drive up to three Flex One SO spools or one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

Dimming control by analog 0-10V input



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.



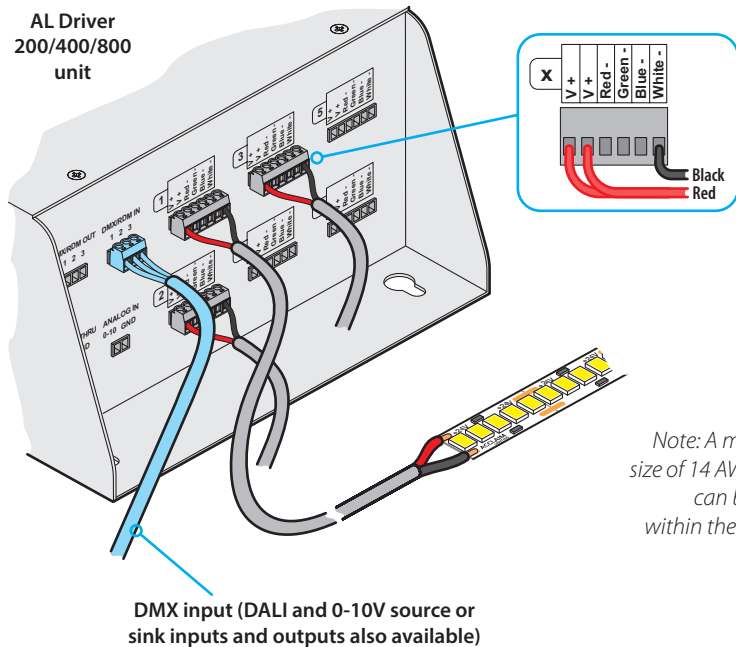
AL DRIVER 200/400/800 (0-10V, DALI OR DMX CONTROL)

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 34.



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

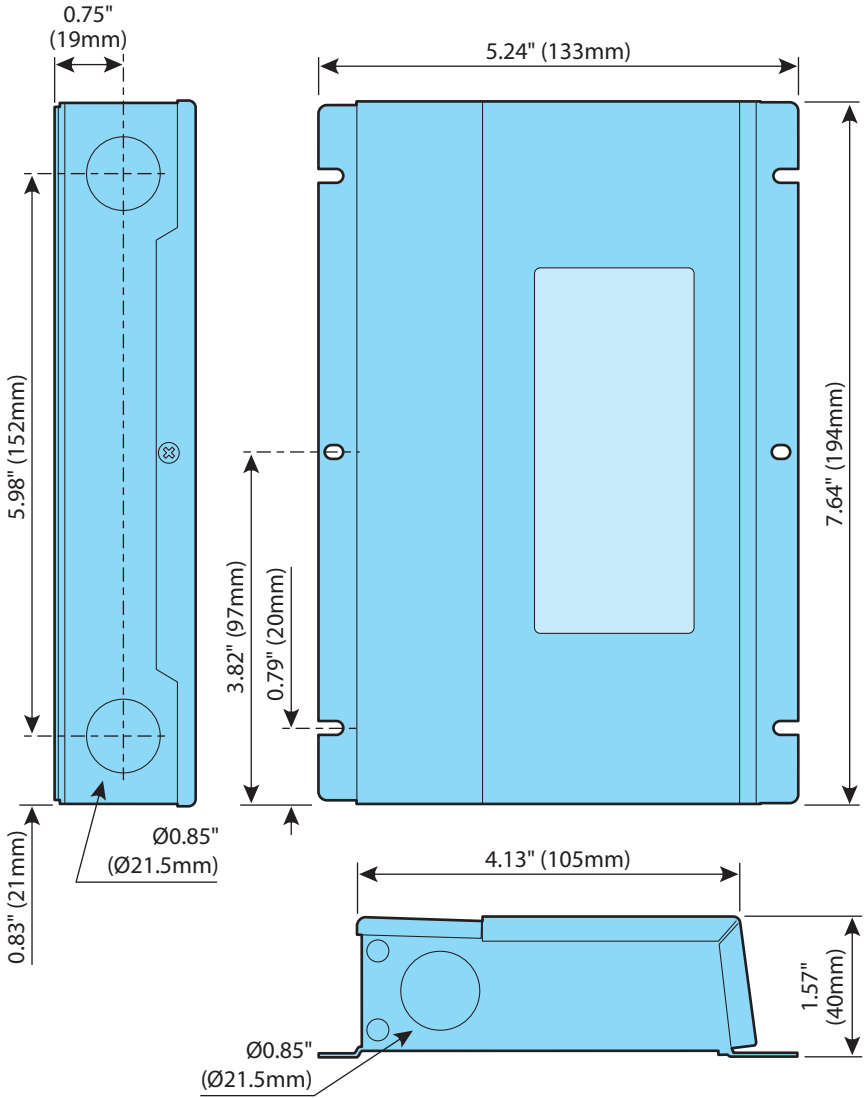
Beam angle	116°
Color temperature (CCT)	2400K, 2700K, 3000K, 3500K or 4000K
Lumens	Flex One SO : Up to 235 @ 4000K (1' section) Flex One HO : Up to 566 @ 3000K (1' section)
Efficacy (lm/W)	Flex One SO : Up to 96.7 @ 4000K Flex One HO : Up to 102.9 @ 3000K
Color Rendering Index (CRI)	Flex One SO : 97.3 @ 3000K Flex One HO : 96.5 @ 3000K
Lumen maintenance (L ₇₀)	50,000 hours (25°C max)
Operating voltage	24VDC
Power consumption	See "Power requirements" on page 34
Dimming control	Pulse width modulation
Maximum overall length	16.4' (5m)
Cut points	Every 1" (25mm)
Ingress protection	IP20 (dry location)
Impact protection	IK00 (not protected)
Dimensions (W x H x L)	0.39" x 0.07" x 16.4' 10 x 1.8 x 5000mm
Operating temperature	32°F to 104°F 0°C to 40°C
Housing	Copper strip, white coating 3M™ VHB™ adhesive backing
Certifications	



RoHS

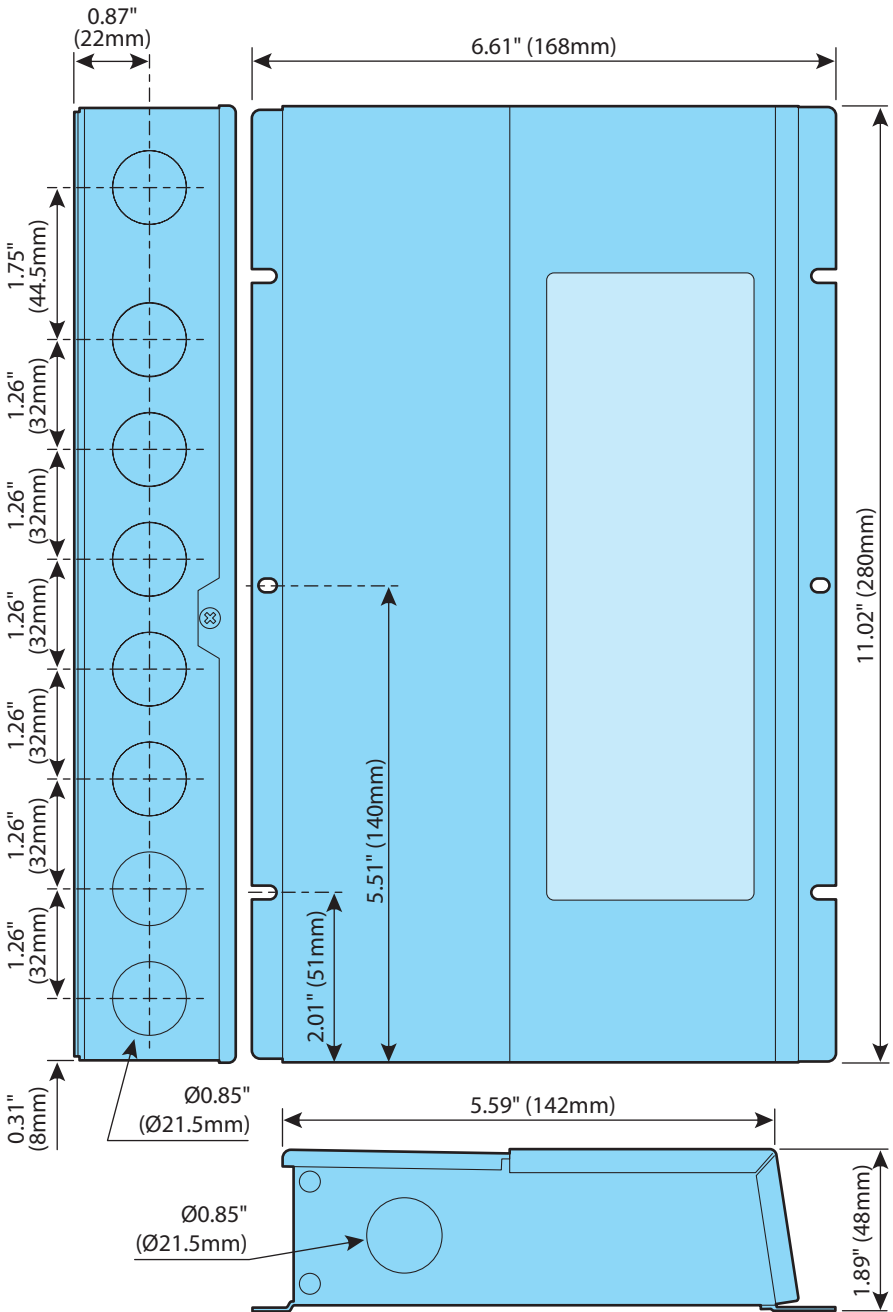


DIMENSIONS - MLE DRIVER 96



Weight: 3.1 lbs (1.4kg)

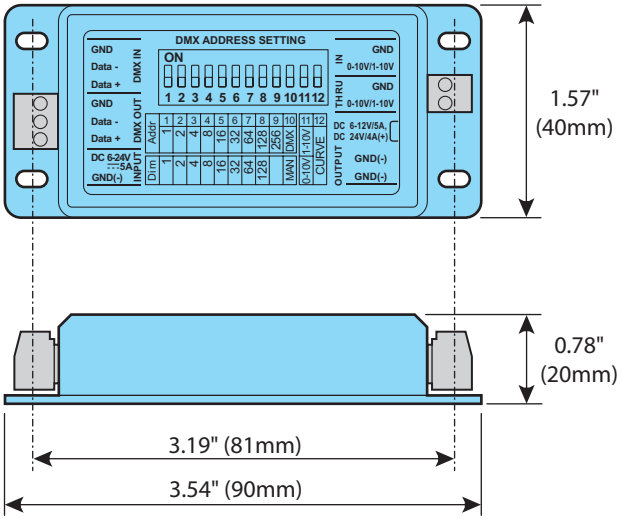
DIMENSIONS - MLE DRIVERS 192 AND 288



Weight (192): 5.5 lbs (2.5kg)

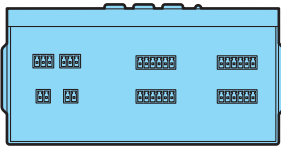
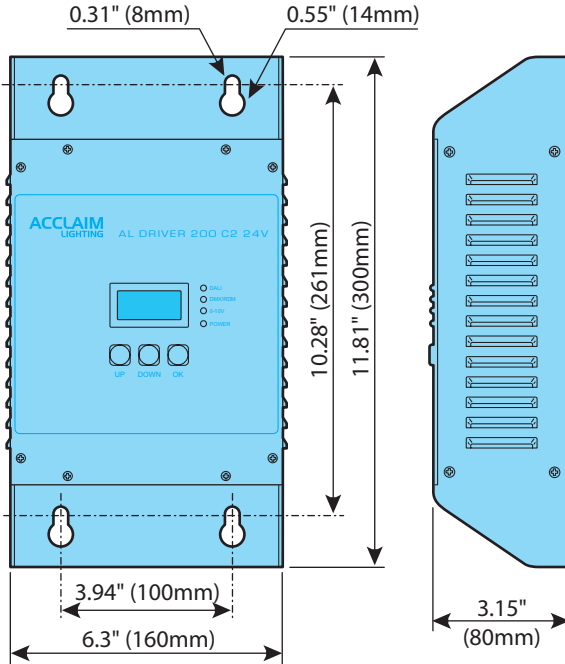
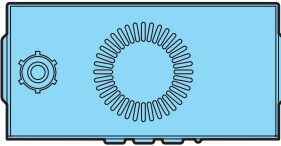
Weight (288): 5.7 lbs (2.6kg)

DIMENSIONS - AL DRIVER 1



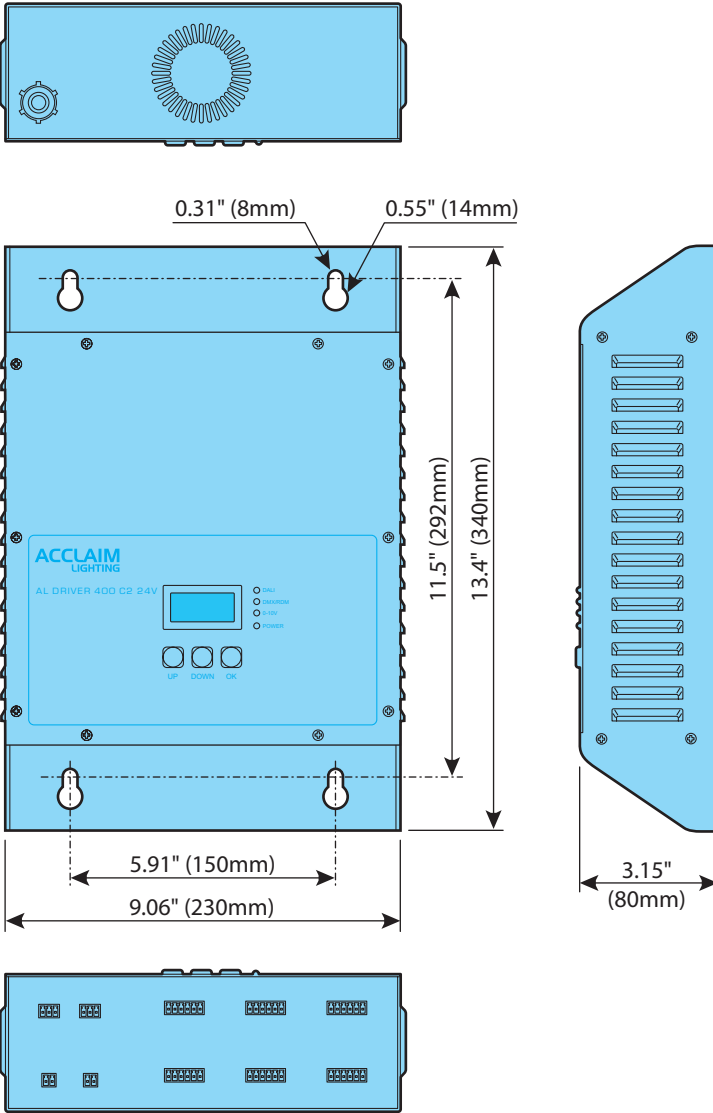
Weight: 0.1 lbs (45g)

DIMENSIONS - AL DRIVER 200



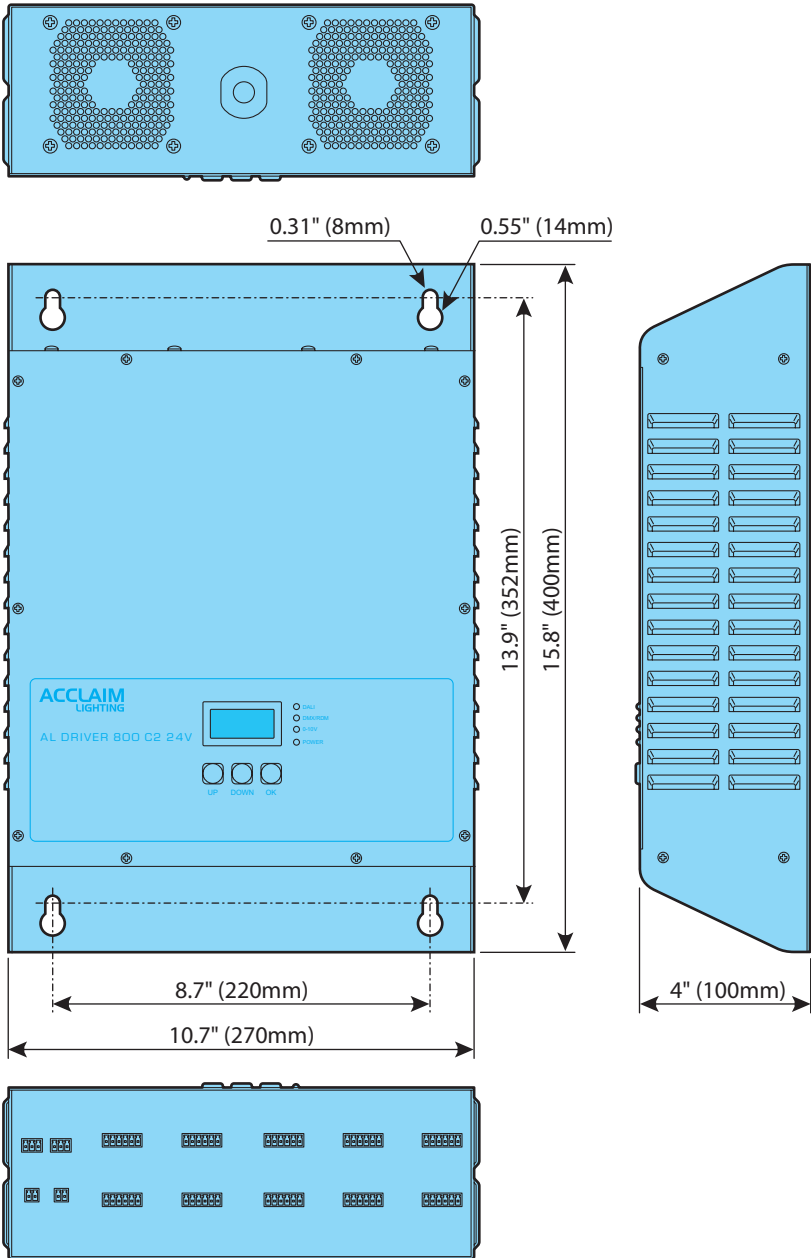
Weight: 5.29 lbs (2.4kg)

DIMENSIONS - AL DRIVER 400



Weight: 8.4 lbs (3.8kg)

DIMENSIONS - AL DRIVER 800



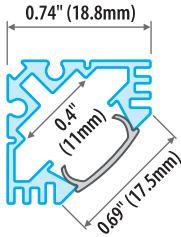
Weight: 14.4 lbs (6.5kg)

DIMENSIONS - CHANNELS

All channels and lenses are supplied in lengths of 3.28' (1m) except for FLX444, FLX777 and FLX888 (and their respective lenses) which are all supplied in lengths of 4' (1.21m).

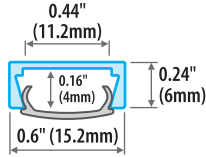
FLEX 45 DEGREE CHANNEL

[FLX 45D]



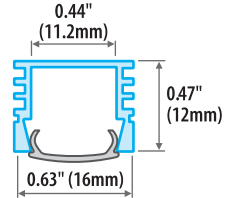
FLEX MINI CHANNEL

[FLX MIN]



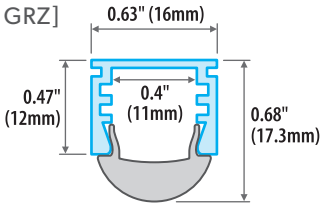
FLEX MINI SQUARE CHANNEL

[FLX MSP]



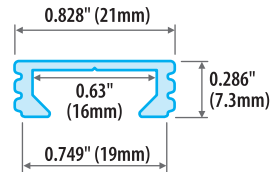
FLEX GRAZE CHANNEL

[FLK GRZ]



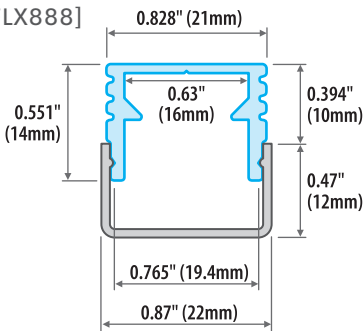
FLEX CHANNEL LOW PROFILE

[FLX444]



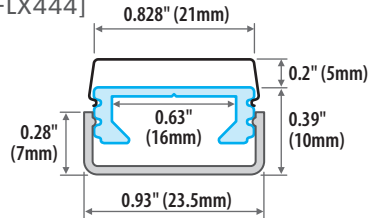
FLEX CHANNEL TALL PROFILE

[FLX888]



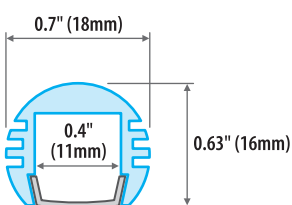
FLEX CHANNEL LOW PROFILE (WITH LENS & CLIP ATTACHED)

[FLX444]



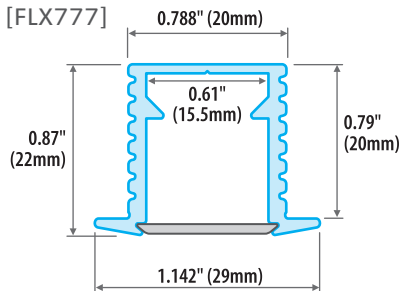
FLEX PENDANT CHANNEL

[FLK PEN]



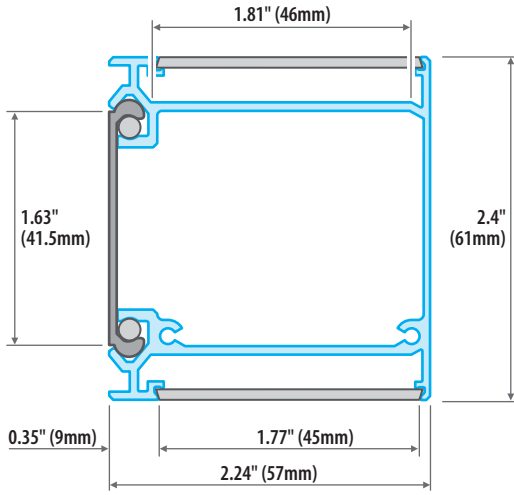
FLEX CHANNEL RECESSED

[FLX777]



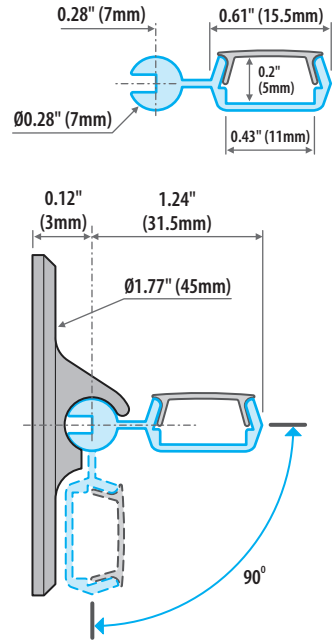
FLEX DUAL CHANNEL

[FLK DUL]



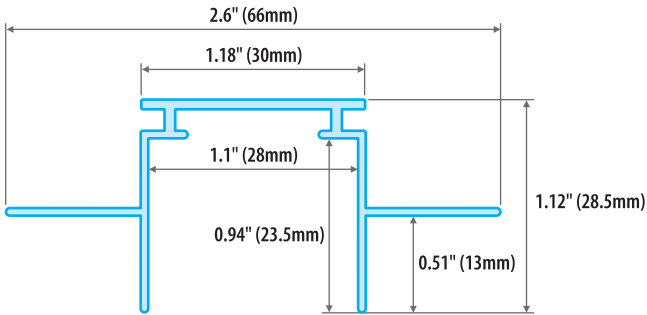
FLEX SWIVEL CHANNEL

[FLK SWI]

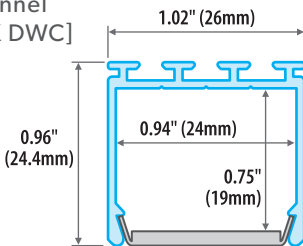


FLEX DRYWALL CHANNEL

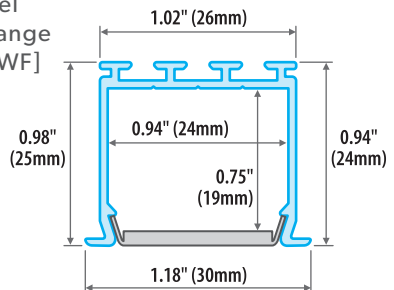
Mount
[FLK DWM]



Channel
[FLK DWC]



Channel
with flange
[FLK DWF]



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 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 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