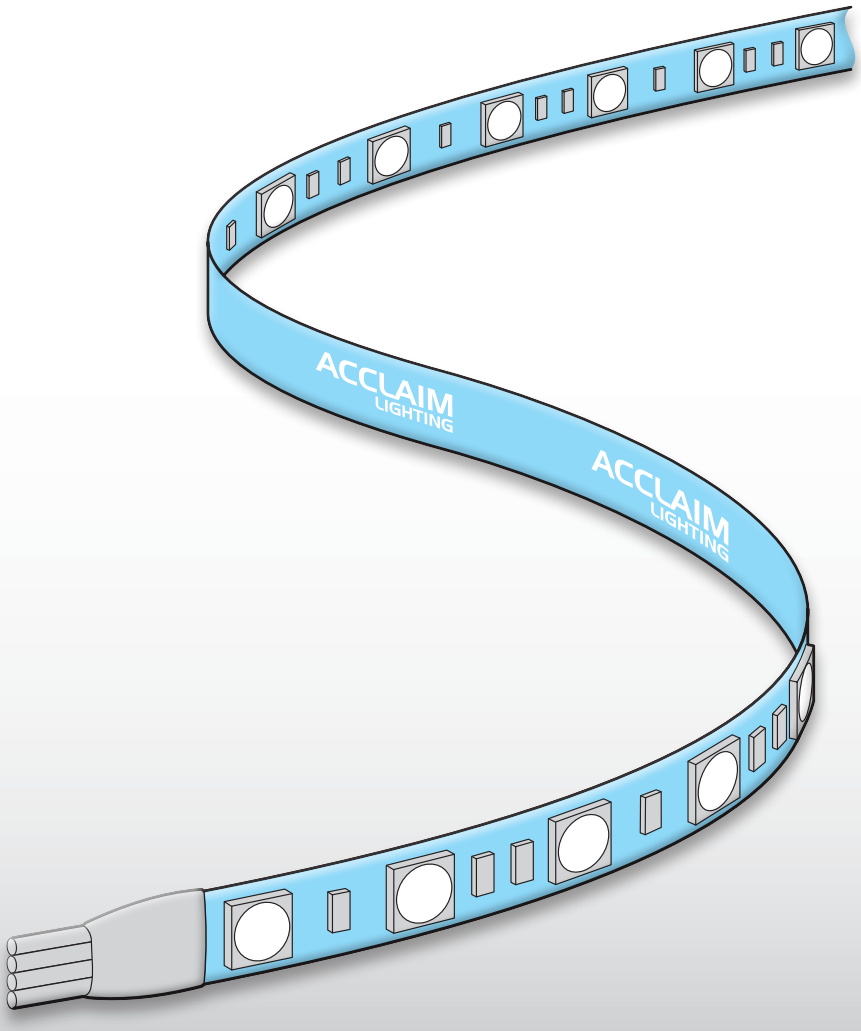
ACCLAIM
LIGHTING



Flex II Interior (SC and RGB)

User guide

Contents

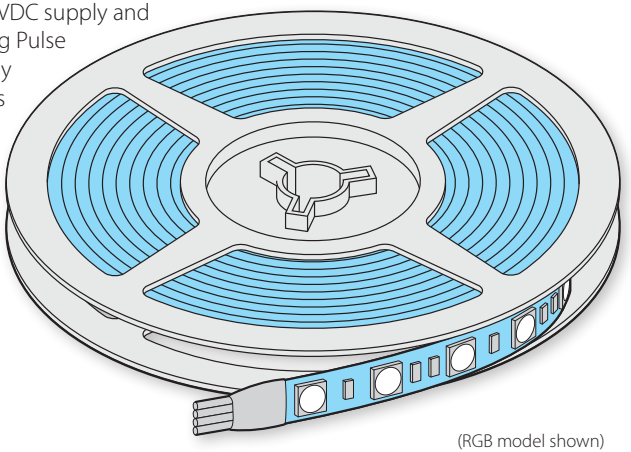
Introduction

Welcome

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

Flex II Interior tape is available either with RGB composite emitters or a choice of single color emitters with Correlated Color Temperature (CCT) options ranging from 2400K to 4000K.

All Flex II tapes require a 12VDC supply and dimming is supported using Pulse Width Modulation (PWM) by various optional driver units - see page 6.



(RGB model shown)

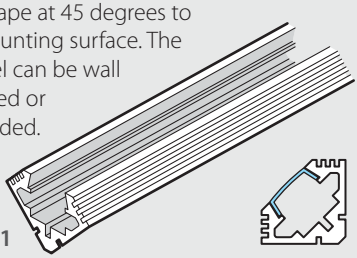
Safety

- Ensure the power input is supplied from a correctly fused, earthed and environmentally protected location.

Channel types

Flex 45 degree channel [FLK 45D]

A low profile channel which holds the Flex II tape at 45 degrees to the mounting surface. The channel can be wall mounted or suspended.



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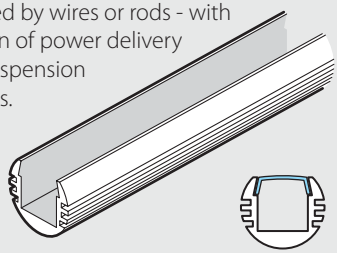
Flex pendant channel [FLK PEN]

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



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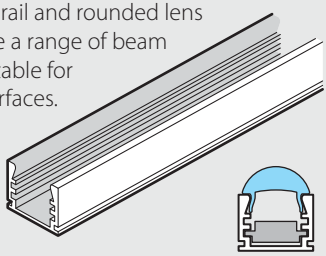
Flex graze channel [FLK GRZ]

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



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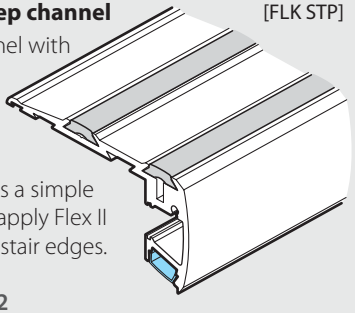
Flex step channel [FLK STP]

A channel with rubber tread inserts which provides a simple way to apply Flex II tape to stair edges.



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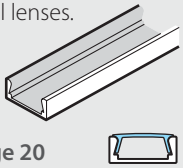
Flex mini channel [FLK MIN]

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



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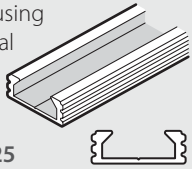
Flex channel low profile [FLX444]

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



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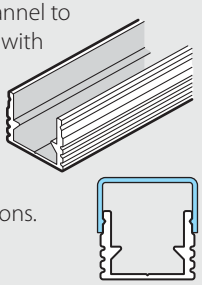
Flex channel tall profile [FLX888]

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



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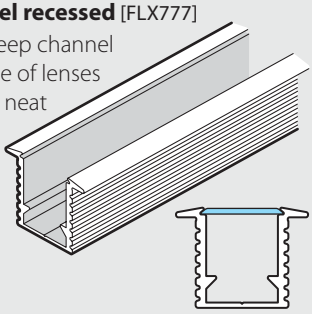
Flex channel recessed [FLX777]

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



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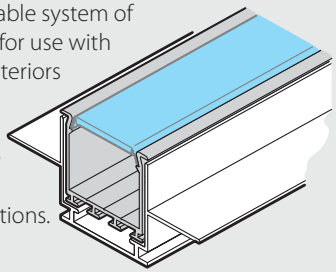
Flex dry wall channel [FLK DWM]

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



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Installation

Flex II Interior tapes are supplied with 3M™ VHB 5390 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 700 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 37.

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.*

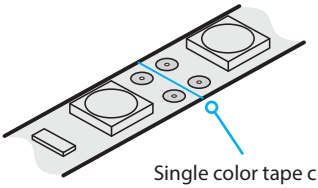
Cutting and connecting the tape

Flex II tapes are supplied with ready made connections at one end. The RGB model has a 24"/600mm 4-way ribbon cable (with bare tails) while the single color variants are all supplied with a detachable 2.5 x 5.5mm power plug assembly (with bare tails - total length 14"/355mm).

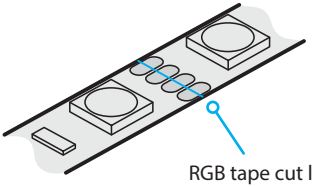
To cut the tape

Flex II tapes are marked with a cut line every two inches (50mm) - every three LED emitters.

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



Single color tape cut line



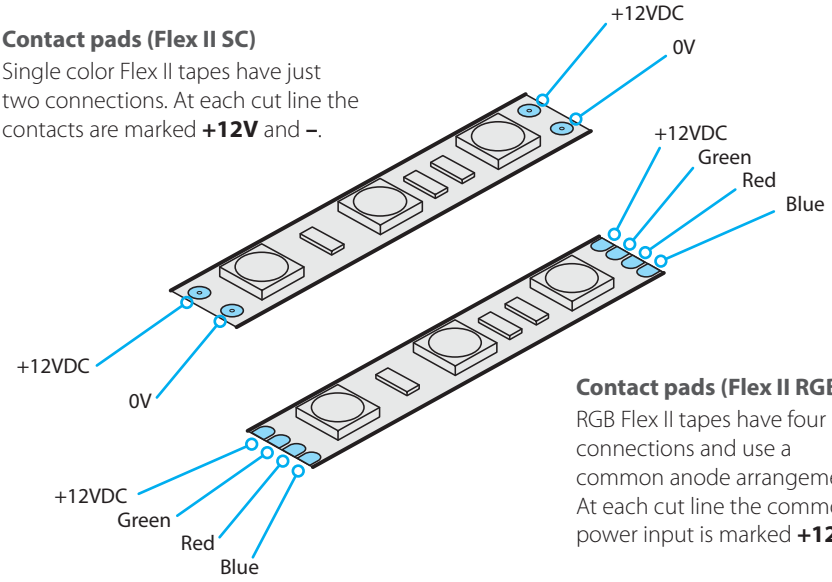
RGB tape cut line

To connect the tape

Once cuts are made to a Flex II tape, then connections need to be made to the new sections. Either side of each cut line are bare copper contact pads where you can make connections either by soldering feed wires or using optional feed and link cables (see below).
Note: When soldering, minimize the time spent heating the tape to avoid damage to the nearby components.

Contact pads (Flex II SC)

Single color Flex II tapes have just two connections. At each cut line the contacts are marked **+12V** and **–**.



Contact pads (Flex II RGB)

RGB Flex II tapes have four connections and use a common anode arrangement. At each cut line the common power input is marked **+12V**.

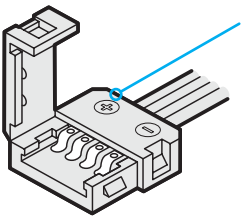
Feed and link cable connectors

The optional feed and link cables have snap connectors specific to each Flex II tape.

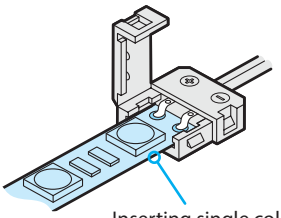
Note: The connectors can fit inside these channels only: Low profile, tall profile, recessed and drywall.

SC *Feed:* FL2IFC *Link:* FL2ILC
RGB *Feed:* FL2IRGBFC *Link:* FL2IRGBLC

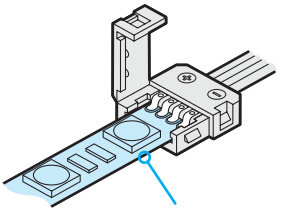
To use: Carefully release the front clip, insert the Flex II tape, ensure all contacts are properly engaged and then snap the clip shut.



IMPORTANT: Ensure the **+** symbol on the connector aligns with the **+12V** label on the tape.



Inserting single color tape into a 2-way connector



Inserting RGB tape into a 4-way connector

Powering and dimming Flex II tapes

Flex II tapes are run at 12VDC and consume power as follows:

	per foot	*per meter*	*per 16.4' (5m) spool*
• Single color:	3W	10W	50W
• RGB :	4.45W	14.6W	73W

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 II tapes to the power/driver unit should follow these guidelines (based on a load of 4.2A for 16.4'/5 meters of Flex II tape):

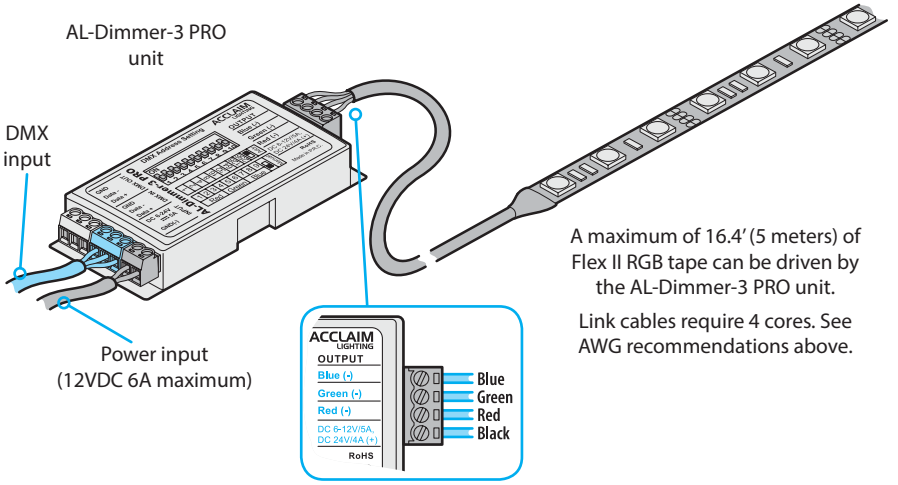
- Up to 20 feet (6m) 18 AWG (0.823mm^2)
- Up to 50 feet (15m) 14 AWG (2.081mm^2)
- Up to 90 feet (27m) 12 AWG (3.309mm^2)

In all cases, ensure the voltage drop at the fixture end of the link cable is no greater than 9% (1.08V) of the original 12VDC supply.

Flex II RGB power supplies and dimmers

AL-Dimmer-3 PRO

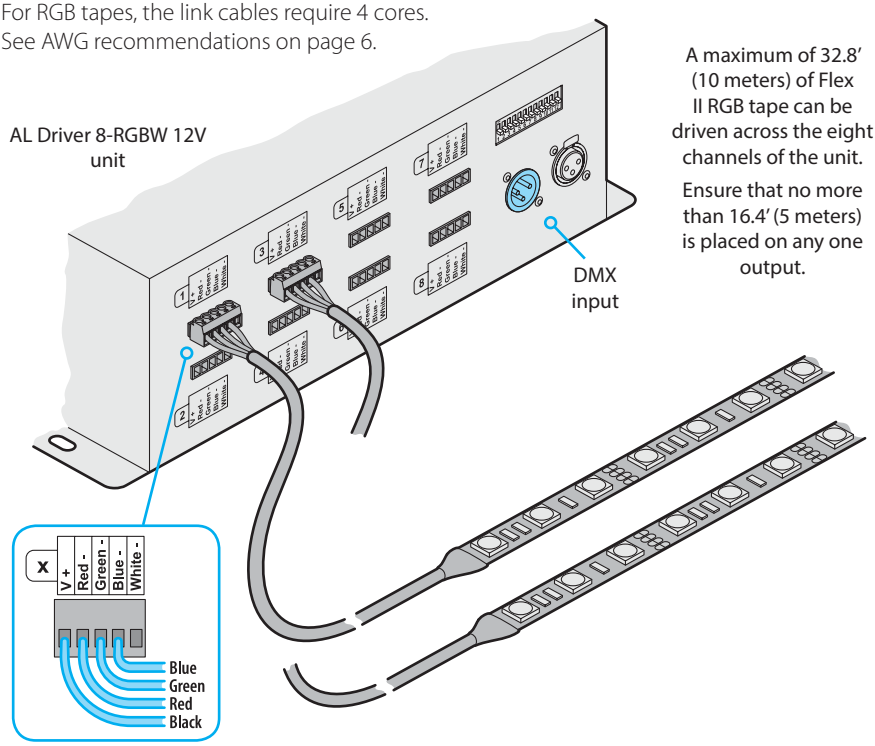
This compact unit measures just 3.5" x 1.6" x 0.8" and provides dimming control for Flex II RGB tapes from a DMX input. The AL-Dimmer-3 PRO unit requires a 12VDC power supply (such as the Acclaim Lighting APS-60-12 or APS-120-12) and can drive a single 16.4' (5 meter) spool.



AL Driver 8-RGBW 12V

This combined power supply and driver provides dimming control for multiple Flex II RGB (or single color - see page 10) tapes from a DMX input.

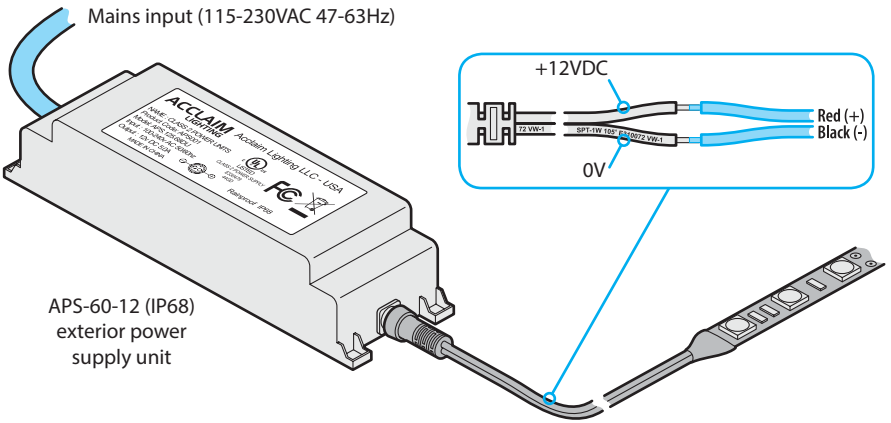
For RGB tapes, the link cables require 4 cores.
See AWG recommendations on page 6.



Flex II SC power supplies and dimmers

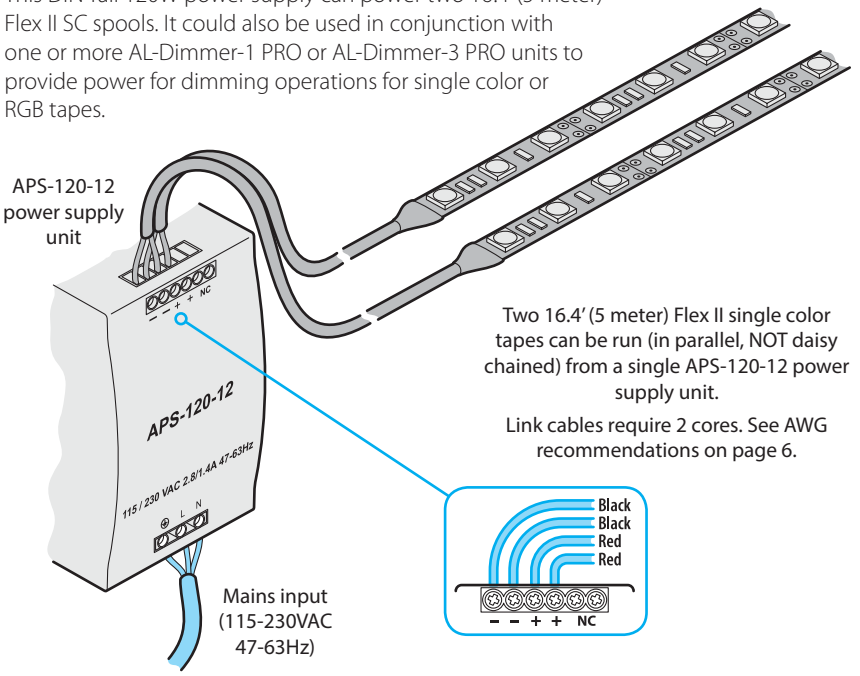
APS-60-12

This compact 60W power supply is rated to IP68 for exterior use and can power a single Flex II SC spool. It could also be used in conjunction with an AL-Dimmer-1 PRO or AL-Dimmer-3 PRO to provide power for dimming operations for a single color or multi-color RGB tape.



APS-120-12

This DIN-rail 120W power supply can power two 16.4' (5 meter) Flex II SC spools. It could also be used in conjunction with one or more AL-Dimmer-1 PRO or AL-Dimmer-3 PRO units to provide power for dimming operations for single color or RGB tapes.

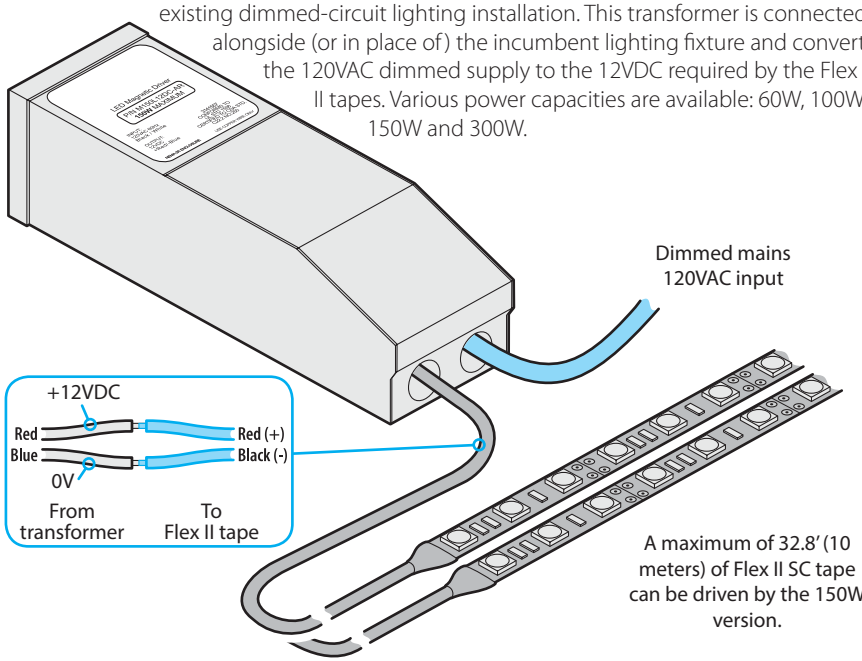


Two 16.4' (5 meter) Flex II single color tapes can be run (in parallel, NOT daisy chained) from a single APS-120-12 power supply unit.

Link cables require 2 cores. See AWG recommendations on page 6.

M-Series 12V dimmable transformer

This magnetic transformer is designed to allow Flex II tapes to be integrated into an existing dimmed-circuit lighting installation. This transformer is connected alongside (or in place of) the incumbent lighting fixture and converts the 120VAC dimmed supply to the 12VDC required by the Flex II tapes. Various power capacities are available: 60W, 100W, 150W and 300W.

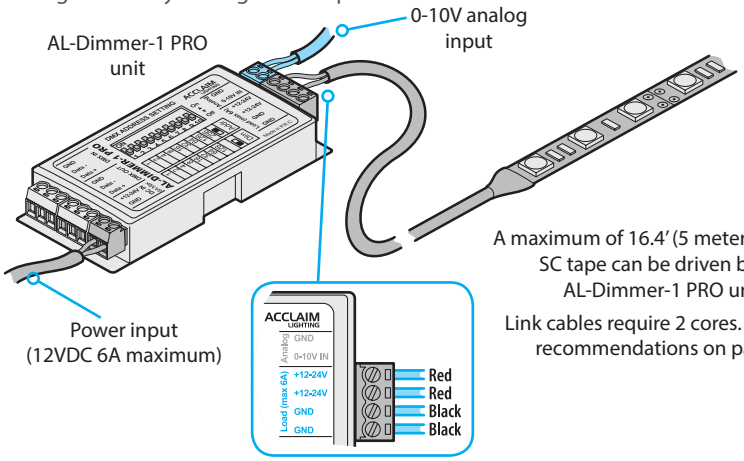


A maximum of 32.8' (10 meters) of Flex II SC tape can be driven by the 150W version.

AL-Dimmer-1 PRO

This compact unit measures just 3.5" x 1.6" x 0.8" and provides dimming control for Flex II single color tapes from either analog 0-10V **or** digital DMX control inputs. The AL-Dimmer-1 PRO unit requires a 12VDC power supply (such as the Acclaim Lighting APS-60-12 or APS-120-12) and can drive a single 16.4' (5 meter) spool.

Dimming control by analog 0-10V input

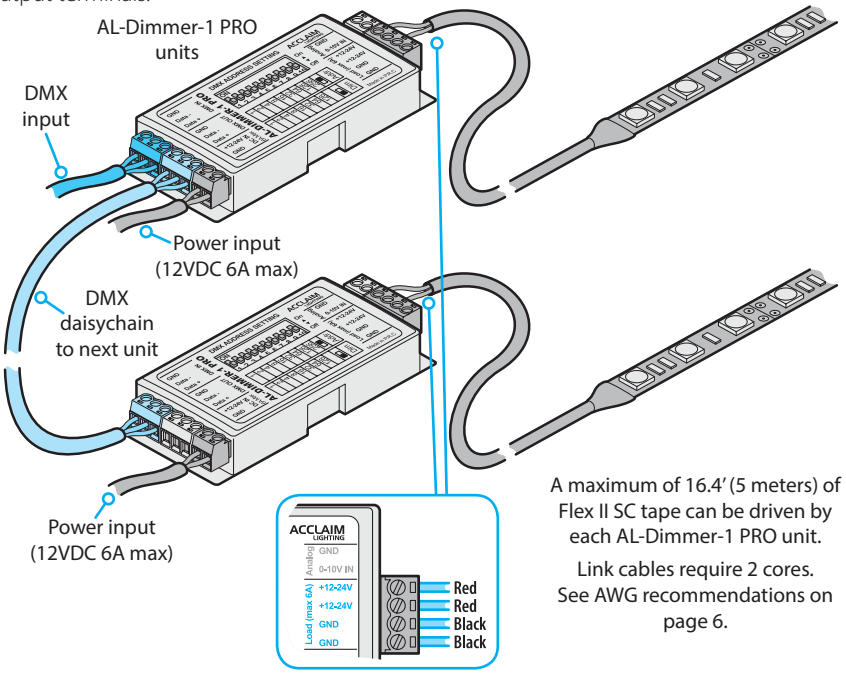


A maximum of 16.4' (5 meters) of Flex II SC tape can be driven by the AL-Dimmer-1 PRO unit.

Link cables require 2 cores. See AWG recommendations on page 6.

Dimming control (and control daisy chaining) by DMX

Up to 32 AL-Dimmer-1 PRO 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.

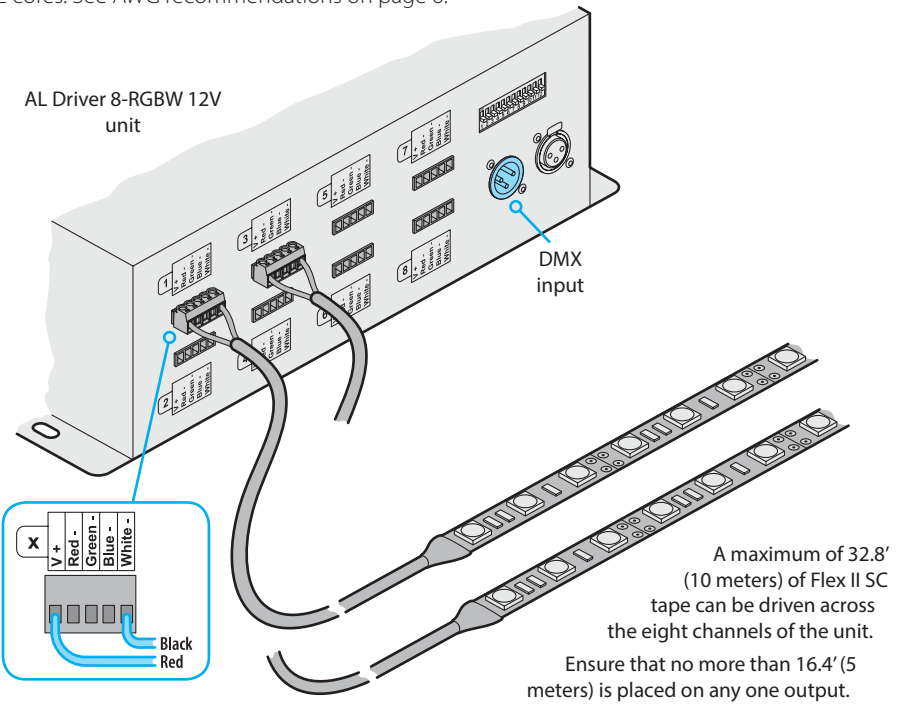


A maximum of 16.4' (5 meters) of Flex II SC tape can be driven by each AL-Dimmer-1 PRO unit.

Link cables require 2 cores. See AWG recommendations on page 6.

AL Driver 8-RGBW 12V

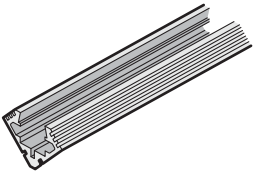
This combined power supply and driver provides dimming control for multiple Flex II single color (or RGB - see page 7) tapes from a DMX input. For SC tapes, the link cables require 2 cores. See AWG recommendations on page 6.



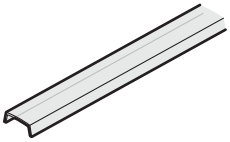
Flex 45 degree channel (FLK 45D)

This low profile channel holds the Flex II tape at 45 degrees to the mounting surface. The Flex II 45 degree channel can be wall/ceiling mounted or alternatively suspended by wires or rods - with the option of power delivery via the suspension wires/rods. Clear, opal and frosted lens options are available. For channel dimensions, see page 34.

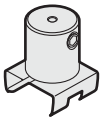
Options



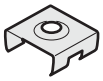
Flex 45 degree channel
(3.28' / 1m)
[FLK 45D]



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



Conductive fastener
[FLK 45D CF]



Zinc mounting bracket
[FLK 45D 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 45D EC]

End cap with hole
[FLK 45D ECH]

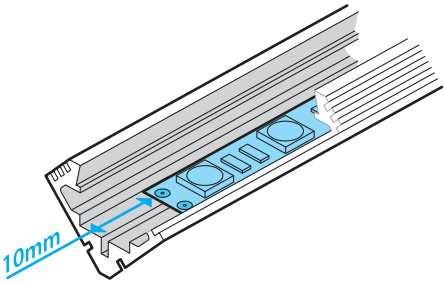
To fit the Flex II tape

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 II tape can only be cut every 2" (50mm) and this may mean that a precise length of Flex II tape cannot 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 II tape and carefully stick the Flex II tape into the channel, starting at the marked position.

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

To surface mount

1 Fit the Flex II tape to the channel (see Page 11).

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

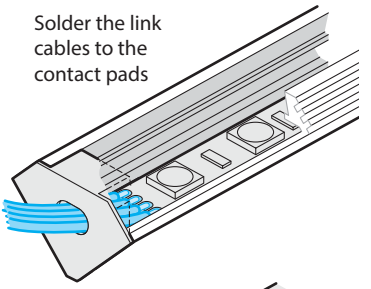
3 Feed the link cables through the end cap and carefully solder to the contact pads, if necessary (see page 5).

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

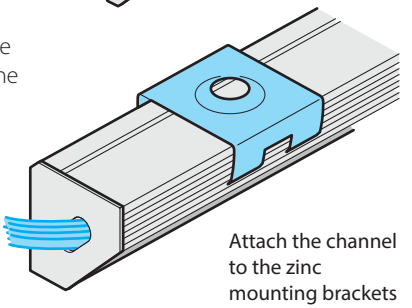
5 Fit the required lens (see below).

6 Attach two or more *Zinc mounting brackets* 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 zinc mounting brackets

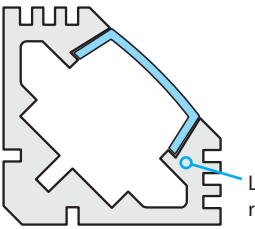
To fit a lens

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

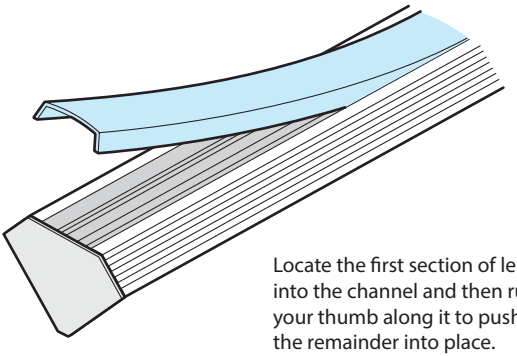
2 Carefully cut the lens to length. Ensure that any resulting burrs are removed.

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.

To suspend using conductive fasteners

Note: This procedure is not applicable for Flex II RGB tapes.

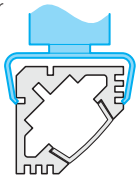
1 Fit the Flex II tape to the channel (see Page 11).

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 5).

Note: One end must connect to the +12V pad while the other end links with the 0V pad.

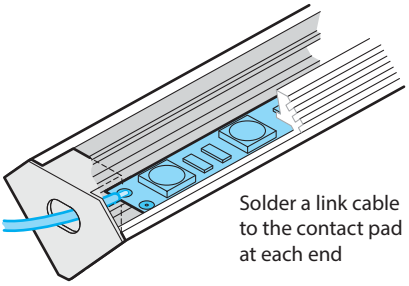
4 At each end, fit a *Conductive fastener* using the slots shown here: and solder the link cable to the copper tab.



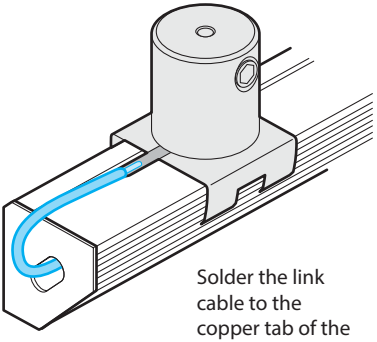
5 Make a note of the polarity of the connections at each end and fit the required lens (see Page 12).

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.

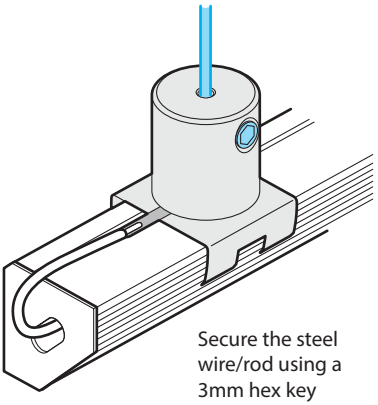
7 Establish the required height of the pendant channel and use a 3mm hex key to tighten the clamps so the channel is horizontal (using a spirit level) and fully secure.



Solder a link cable to the contact pad at each end



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

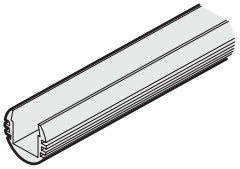


Secure the steel wire/rod using a 3mm hex key

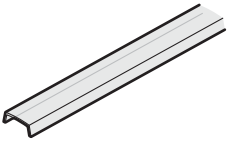
Flex pendant channel (FLK PEN)

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 (not with RGB Flex II tapes) to transfer power via the supportive wires or rods. Clear, opal and frosted lens options are available. For channel dimensions, see page 34.

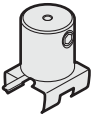
Options



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]

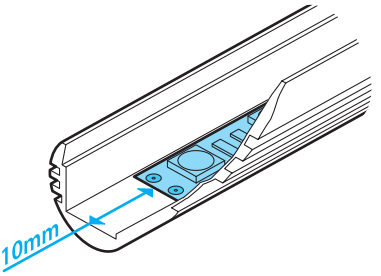
To fit the Flex II tape

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 II tape can only be cut every 2" (50mm) and this may mean that a precise length of Flex II tape cannot 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 II tape and carefully stick the Flex II tape into the channel, starting at the marked position.

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

To surface mount

1 Fit the Flex II tape to the channel (see page 14).

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

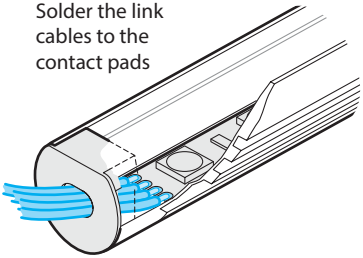
3 Feed the link cables through the end cap and carefully solder to the contact pads, if necessary (see page 5).

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

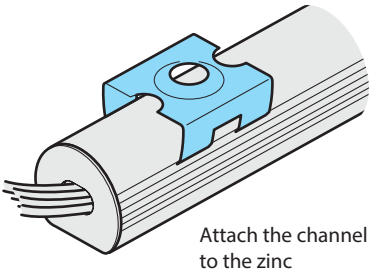
5 Fit the required lens (see page 17).

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

To suspend using conductive end caps

Note: This procedure is not applicable for Flex II RGB tapes.

1 Fit the Flex II tape to the channel (see page 14).

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 5). One end must connect to the +12V pad while the other end links with the 0V pad.

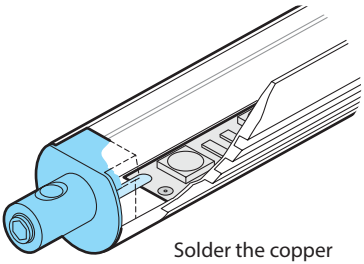
If the end of the Flex II tape is more than 11mm from the pendant channel edge you will need to use additional wire to bridge the gap between the copper tab and the contact pad.

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

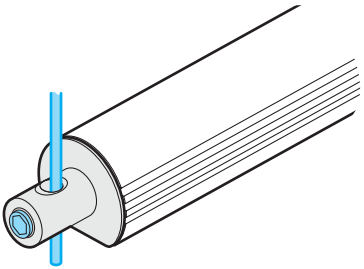
4 Make a note of the polarity of the connections at each end and fit the required lens (see page 17).

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 II contact pad



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

To suspend using conductive fasteners

Note: This procedure is not applicable for Flex II RGB tapes.

1 Fit the Flex II tape to the channel (see page 14).

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 5).

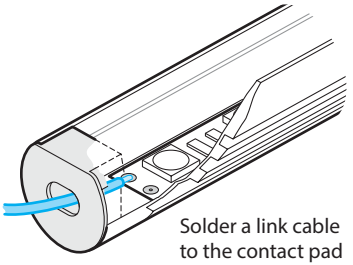
Note: One end must connect to the +12V pad while the other end links with the 0V pad.

4 At each end, fit a *Conductive fastener* and solder the link cable to the copper tab.

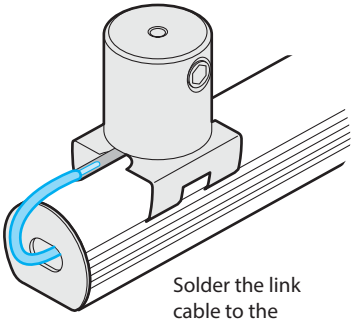
5 Make a note of the polarity of the connections at each end and fit the required lens (see page 17).

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.

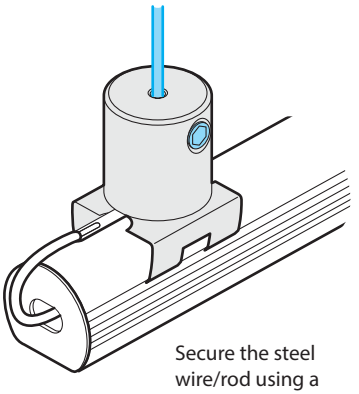
7 Establish the required height of the pendant channel and use a 3mm hex key to tighten the clamps so the channel is horizontal (using a spirit level) and fully secure.



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

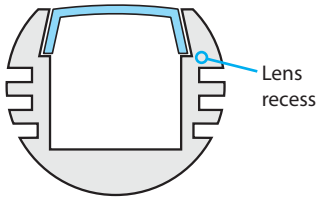
To fit a lens

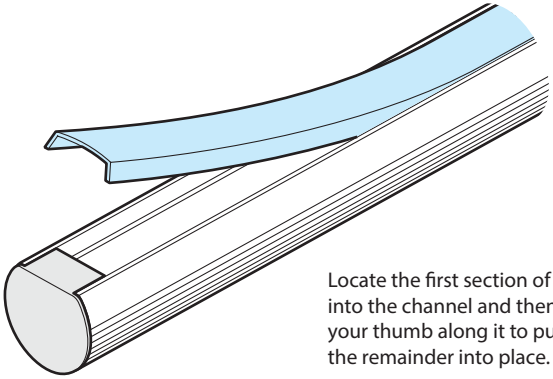
1 Measure the exact length of lens required between the end caps at each end of the channel.

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.



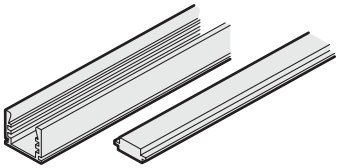


Locate the first section of lens into the channel and then run your thumb along it to push the remainder into place.

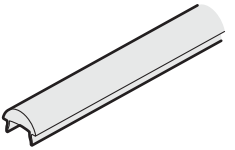
Flex graze channel (FLK GRZ)

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 34.

Options



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



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

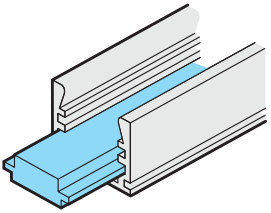
Zinc mounting bracket
[FLK ZMB]

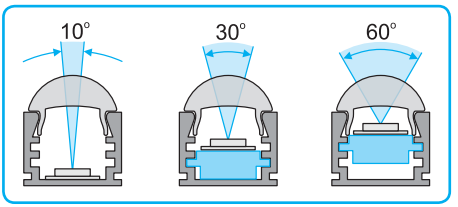
End cap
[FLK GRZ EC]

To fit the Flex II 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:

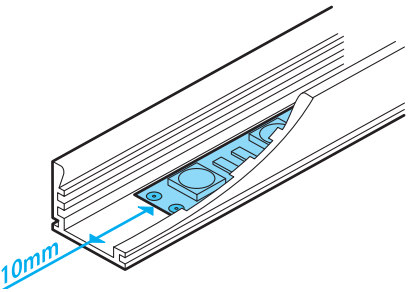




3 Ensure the tape mounting surface within the channel is completely dry, clean and free of grease. If cleaning is required, please see page 4 for details.

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 II tape can only be cut every 2" (50mm) and this may mean that a precise length of Flex II tape cannot 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 II tape and carefully stick the Flex II tape into the channel, starting at the marked position.

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

To surface mount

1 Fit the Flex II tape to the channel (see page 18).

2 Determine the size of hole required to pass the Flex II 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*.

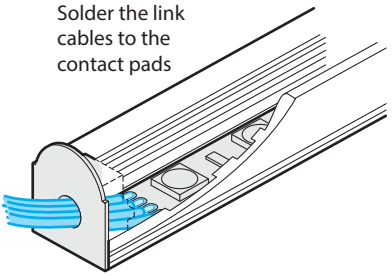
4 Feed the link cables through the end cap and carefully solder to the contact pads, if necessary (see page 5).

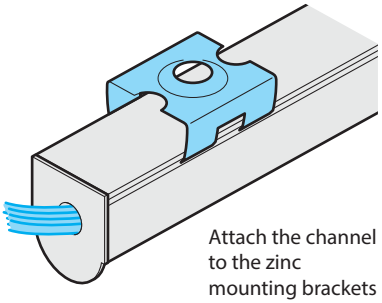
5 At the other end of the channel, fit another *End cap*.

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.





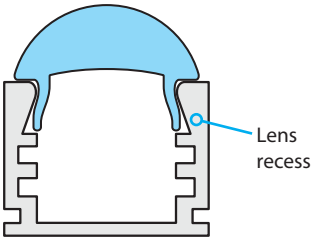
To fit the lens

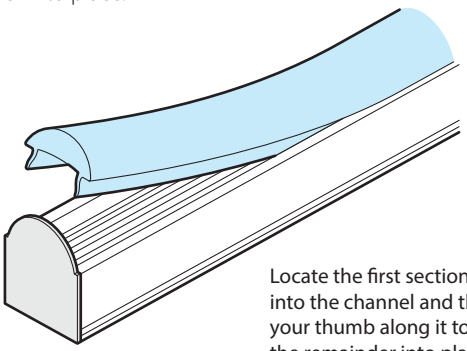
1 Measure the exact length of lens required between the end caps at each end of the channel.

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.

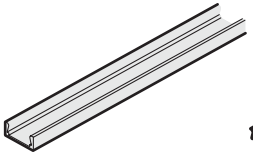




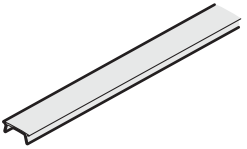
Flex mini channel (FLK MIN)

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 zinc mounting bracket options. For channel dimensions, see page 34.

Options



Flex mini channel
(3.28' / 1m)
[FLK MIN]



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

Zinc mounting bracket
[FLK ZMB]

End cap
[FLK MIN EC]

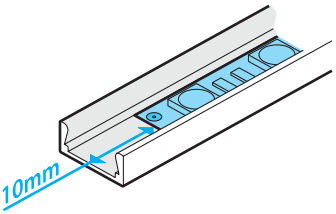
End cap
[FLK MIN ECH]

To fit the Flex II 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 II tape can only be cut every 2" (50mm) and this may mean that a precise length of Flex II tape cannot be achieved. Therefore it may be beneficial to center the tape within the channel to achieve an even distribution. If the section of Flex II 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.

4 Cut the tape to the nearest marked cutpoint.

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

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

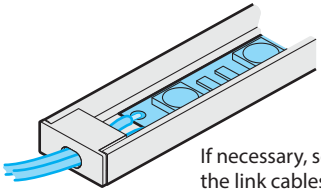
To mount the channel

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

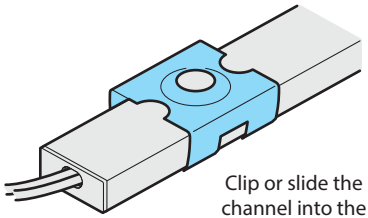
2 Fit the Flex II tape to the channel (see page 20).

3 Attach two or more *Zinc 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



Clip or slide the channel into the mounting brackets

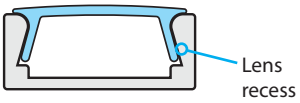
To fit a lens

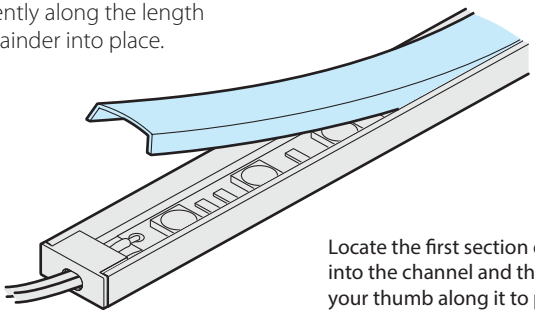
1 Measure the exact length of lens required between the end caps at each end of the channel.

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.



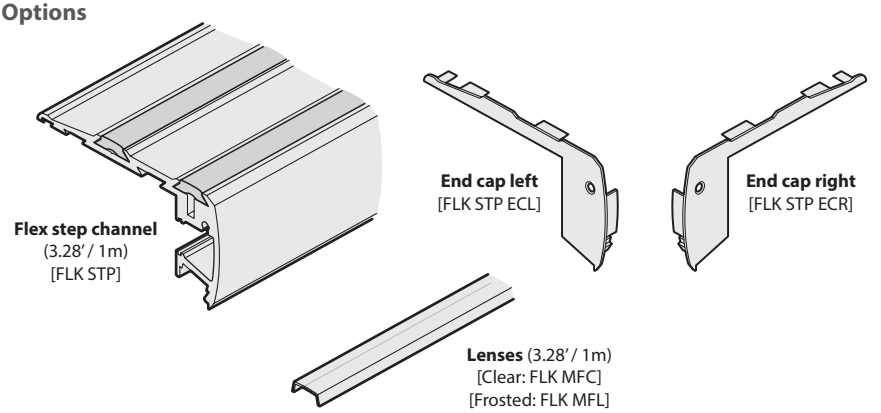


Locate the first section of lens into the channel and then run your thumb along it to push the remainder into place.

Flex step channel (FLK STP)

This anodized aluminum channel with rubber tread inserts provides a simple, safe and durable way to apply Flex II tape illumination to stair edges. Clear and frosted lens options are available. For channel dimensions, see page 34.

Options

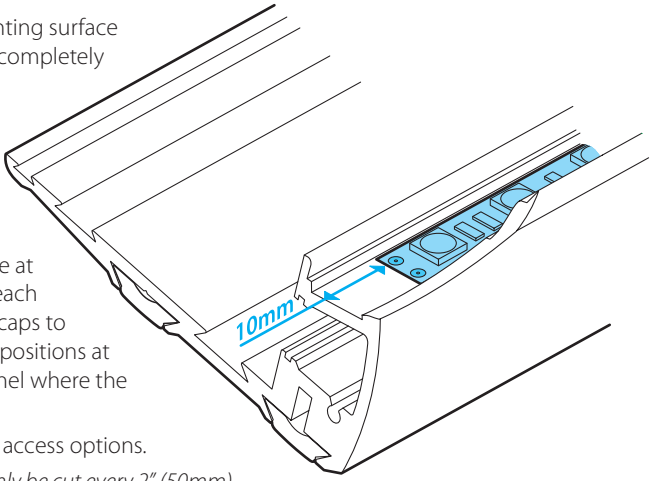


To fit the Flex II tape

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.



See page 23 for cable access options.

Note: Flex II tape can only be cut every 2" (50mm) and this may mean that a precise length of Flex II tape cannot 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.

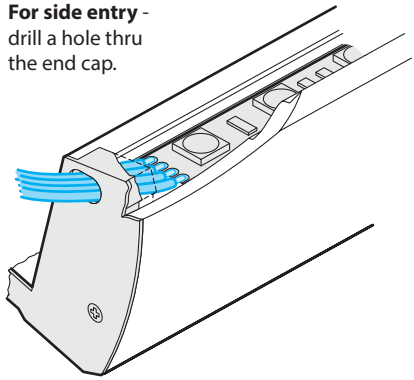
5 Begin peeling the backing from the Flex II tape and carefully stick the Flex II tape into the channel, starting at the marked position.

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

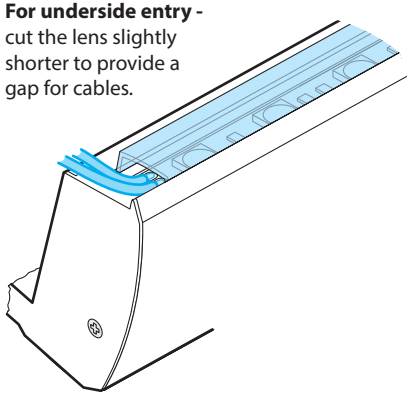
To install the Flex step channel

1 Determine the route that the cables will take into the channel:
   - **For side entry**: Drill a suitably sized hole through the end cap for cable access - make sure the hole is in the area of the end cap where the Flex II tape connections are located.
   - **For underside entry**: Cut the lens slightly shorter (roughly the thickness of the cables) so the cables can enter the channel between the end cap and the lens.
   - **For internal entry/routing** (this method is useful for situations where the cables must enter elsewhere along the length of the channel): Drill a suitably sized hole at the end of the tape mounting surface that will allow the cables to emerge from the large channel cavity and connect with the tape.
2 Fit the Flex II tape to the channel (see page 22).
3 Fit the end cap and secure it with a small screw.
4 Feed in the link cables through the chosen entry method and carefully solder to the contact pads, if necessary (see page 5).
5 At the other end of the channel, fit the opposite type of end cap.
6 Fit the required lens (see page 24).

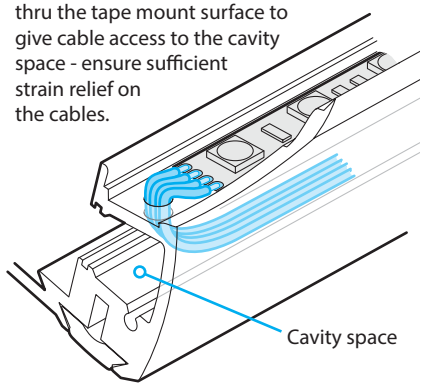
For side entry - drill a hole thru the end cap.



For underside entry - cut the lens slightly shorter to provide a gap for cables.



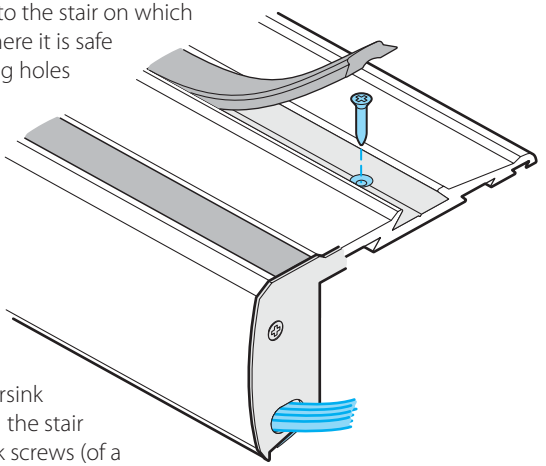
For internal entry - drill a hole thru the tape mount surface to give cable access to the cavity space - ensure sufficient strain relief on the cables.



7 Place the channel temporarily onto the stair on which it will be mounted. Determine where it is safe and practical to position mounting holes on the stair. The ideal location for mounting screws on the Flex step channel is in the slot within which the second rubber tread insert sits - when in place, the tread will then conceal the screws.

8 Peel back the second rubber tread from the channel, make the required number of holes in the Flex step channel and countersink them. Make suitable pilot holes in the stair surface and then use countersunk screws (of a type that are appropriate to the stair surface) to securely fix the channel to the stair.

9 Replace the rubber tread. You may need to carefully use a narrow flat head screwdriver (or blunt knife blade) to lever the rubber tread back into its slot. Take care not to damage the rubber or scratch the aluminum channel.



The ideal location for the mounting screws is in the slot occupied by the second rubber tread - once replaced, the tread will then conceal the screws.

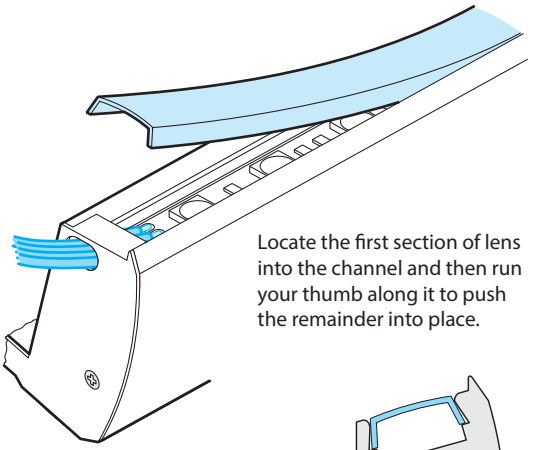
To fit a lens

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

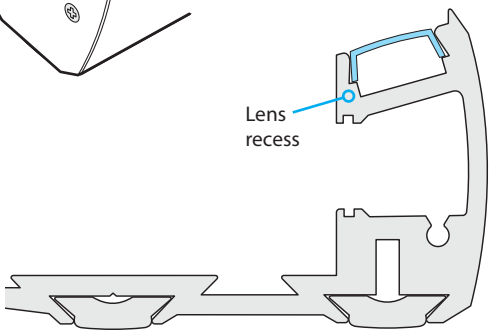
2 Carefully cut the lens to length. Ensure that any resulting burrs are removed.

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 below).

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.



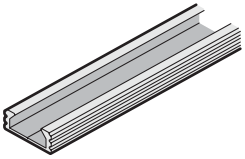
Locate the first section of lens into the channel and then run your thumb along it to push the remainder into place.



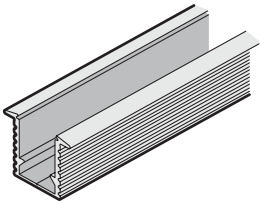
Flex channel - low profile/recessed/tall (FLX444/777/888)

There are three options within the Flex channel range to suit varying installation requirements: A low profile option with no lens; a recessed channel for concealment within surfaces and a tall profile channel that reduces light spill. The latter two channels have a choice of clear, frosted or opal lenses. For channel dimensions, see page 34.

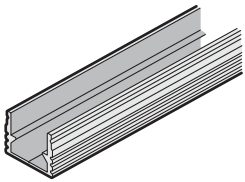
Options



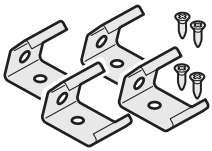
Flex channel low profile
(4' / 1.21m)
[FLX444]



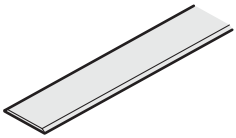
Flex channel recessed
(4' / 1.21m)
[FLX777]



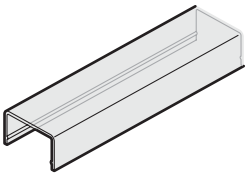
Flex channel tall profile
(4' / 1.21m)
[FLX888]



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

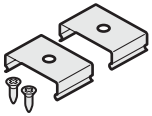


Recessed lenses (4' / 1.21m)
[Clear: FLX727]
[Frosted: FLX715]
[Opal: FLX702]



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

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



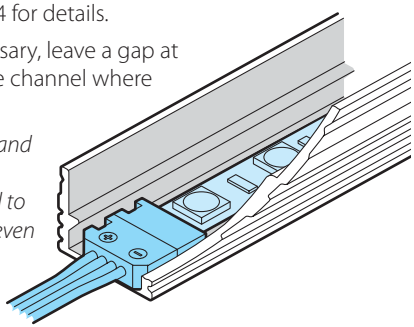
To fit the Flex II tape

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 II tape can only be cut every 2" (50mm) and this may mean that a precise length of Flex II tape cannot 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 26* ***before*** *sticking the tape in place.*

Note: If you are using a feed or link cable, attach the connector ***before*** *sticking the tape in place.*

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

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

To surface mount directly

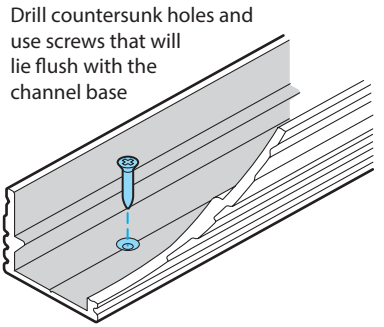
1 Before fitting the Flex II tape, determine where the channel is to be mounted.

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 II tape to the channel (see Page 25).

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



To surface mount using brackets

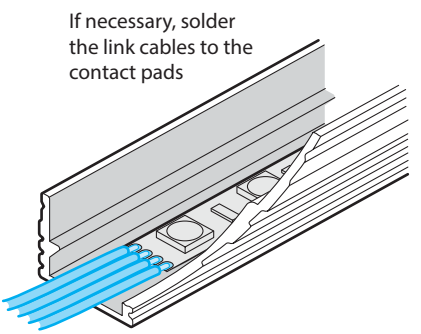
1 If necessary, carefully solder to the contact pads or use a feed/link cable (see page 5).

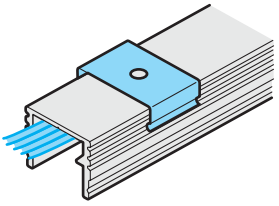
2 Fit the Flex II tape to the channel (see Page 25).

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

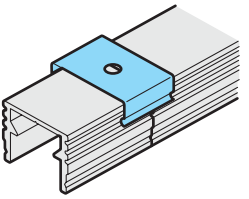
The angled bracket can be used in either of two orientations to provide an angle of either 30 or 45 degrees to the mounting surface (as shown below).

4 Clip the channel into the mounting brackets:

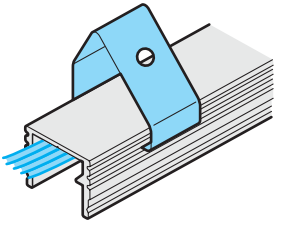




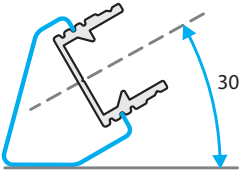
Attaching a flat bracket

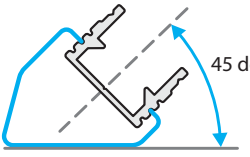


Using a flat bracket to join two channels



Attaching an angled bracket





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

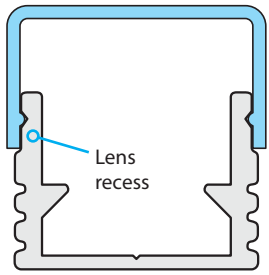
To fit a lens

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

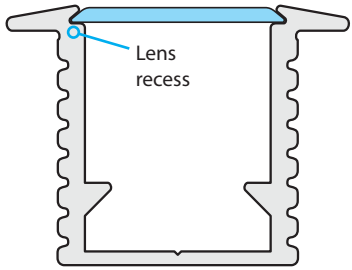
2 Carefully cut the lens to length. Ensure that any resulting burrs are removed.

3 Depending on the channel type:

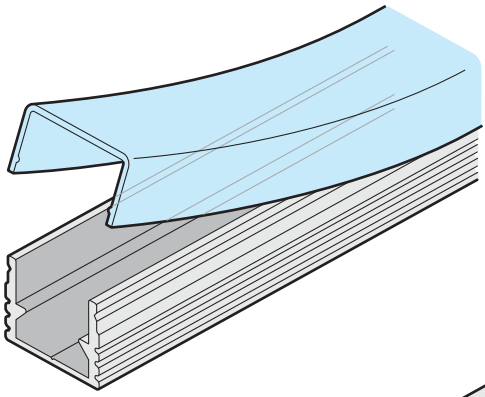
- **Tall profile**: Place one end of the lens over the channel so that it slots into the 'Lens recess' (see right). Then run your hand along the length of the lens to gently push the remainder into place.
- **Recessed**: Insert one end of the lens into the 'Lens recess' within the channel (see right). Then slide the remaining lens into the recess.



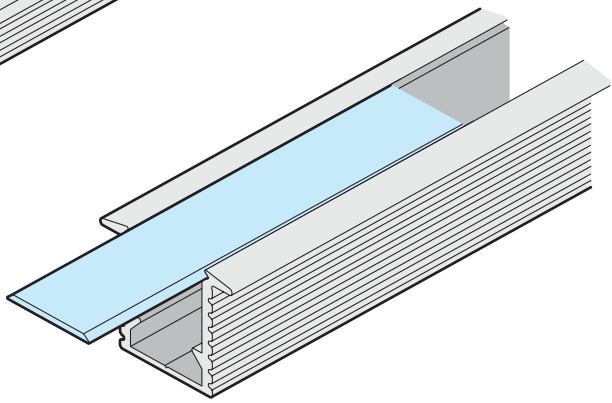
Tall profile
[FLX888]



Recessed
[FLX777]



Tall profile
[FLX888]

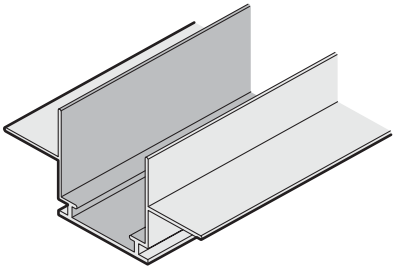


Recessed
[FLX777]

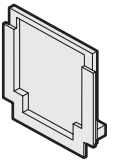
Flex drywall channel (FLK DWM/DWC/DWF)

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 II 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 34.

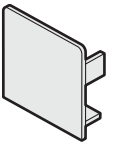
Options



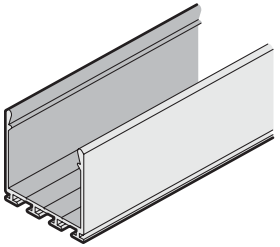
Flex drywall mount *for ½ " (12.5mm) panels*
(3.28' / 1m)
[FLK DWM]



Mount end cap
[FLK DWM EC]



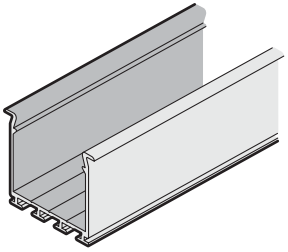
Channel end cap
[FLK DWC EC]



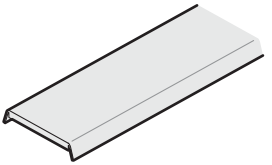
Flex drywall channel
(3.28' / 1m)
[FLK DWC]

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]

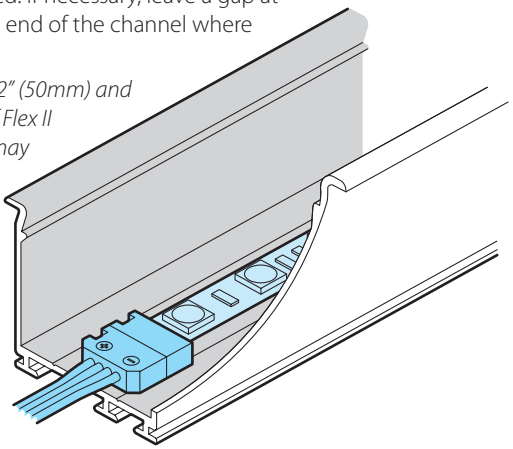
To fit the Flex II tape

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 II tape can only be cut every 2" (50mm) and this may mean that a precise length of Flex II tape cannot 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.

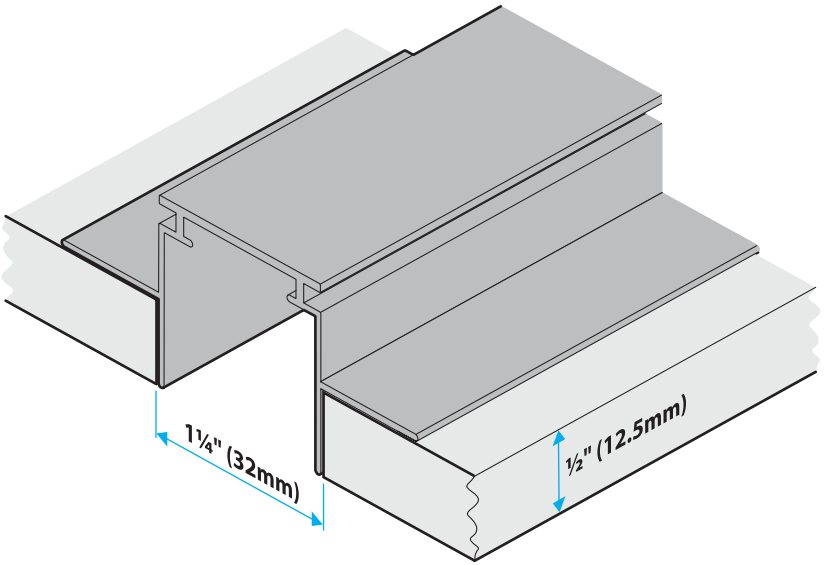
5 If necessary, carefully solder to the contact pads or use a feed/link cable (see page 5).

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

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

To recess a channel within a drywall ceiling

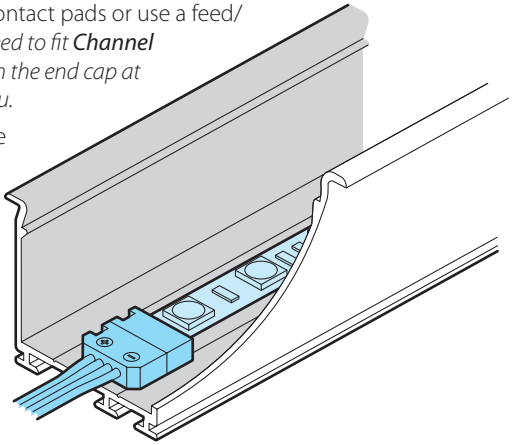
1 Make a gap within the drywall ceiling panels (measuring 1¼" / 32mm wide x the length of the channel). Place the *Flex drywall mount* into the gap so the wings of the mount rest on the ceiling panels. *Note: If required, fit* ***Mount end caps*** *at each end of the mount.*



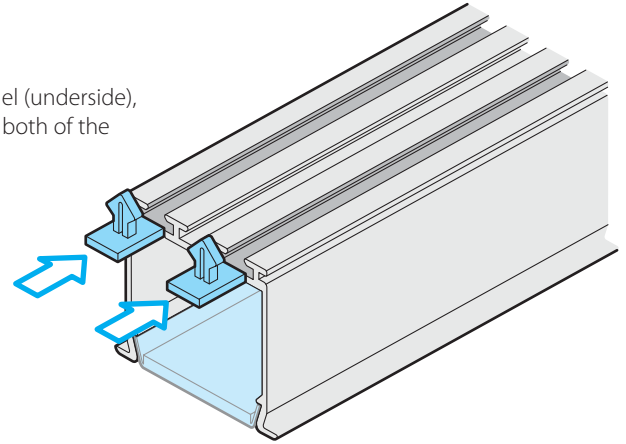
2 If necessary, carefully solder to the contact pads or use a feed/link cable (see page 5). *Note: If you need to fit* ***Channel end caps****, you will need to drill a hole in the end cap at one end to allow the cables to pass thru.*

3 Fit the Flex II tape to the channel (see page 29).

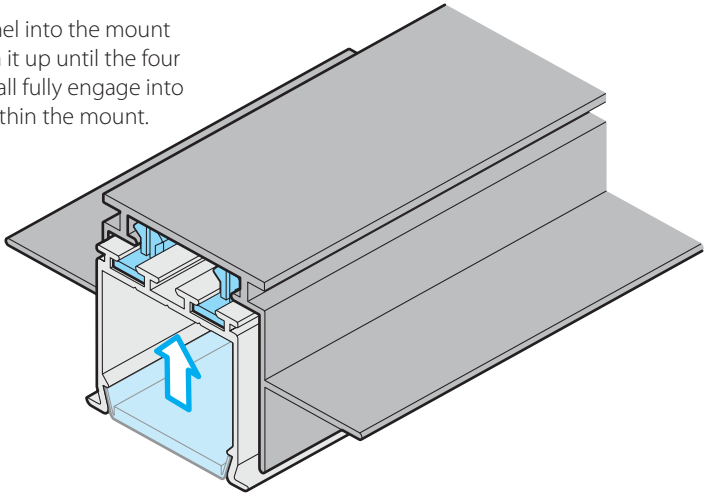
4 Fit the required lens (see page 32).



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.

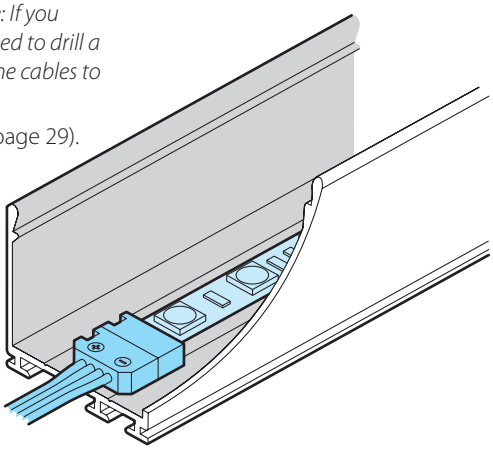


To surface mount a channel on a drywall ceiling

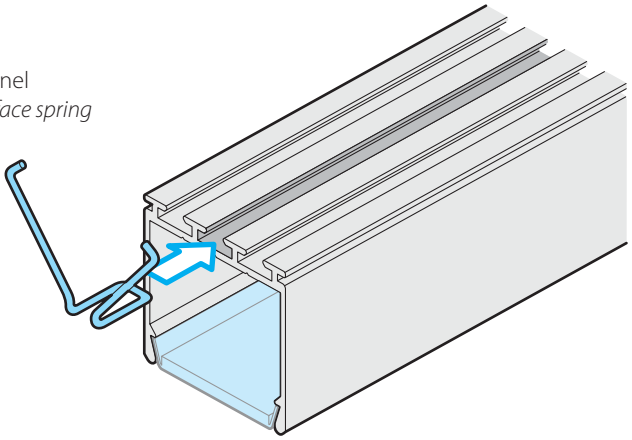
1 If necessary, carefully solder to the contact pads or use a feed/link cable (see page 5). *Note: If you need to fit* ***Channel end caps****, you will need to drill a hole in the end cap at one end to allow the cables to pass thru.*

2 Fit the Flex II tape to the channel (see page 29).

3 Fit the required lens (see page 32).

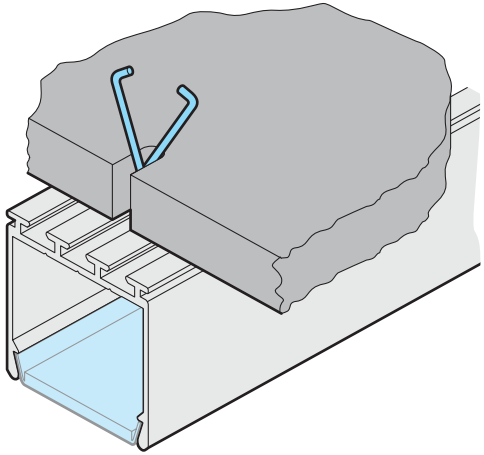


4 At each end of the channel (underside), insert a *Surface spring* into the center slot.



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.



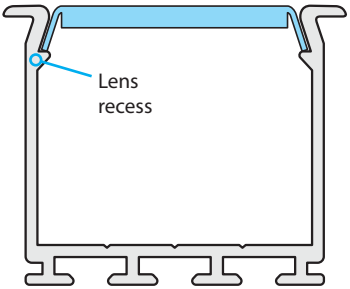
To fit a lens

1 Measure the exact length of lens required between the ends of the channel.

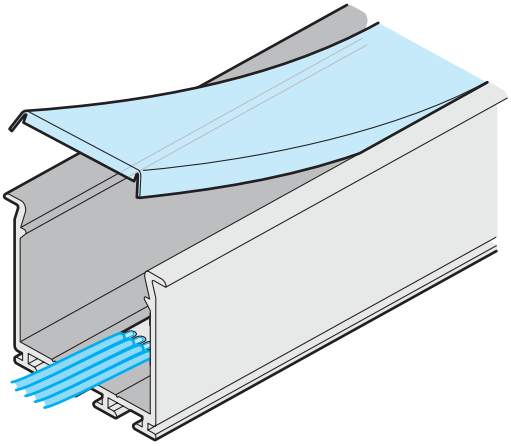
2 Carefully cut the lens to length. Ensure that any resulting burrs are removed.

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.



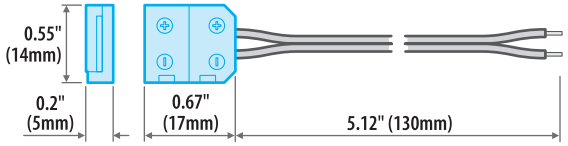
Locate the first section of lens into the channel and then run your thumb along it to push the remainder into place.



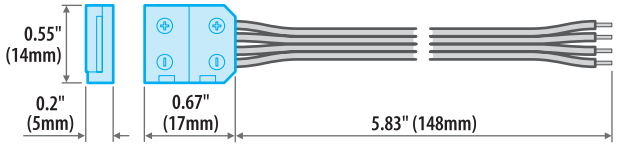
Further information

Feed cable dimensions

Single color (SC)

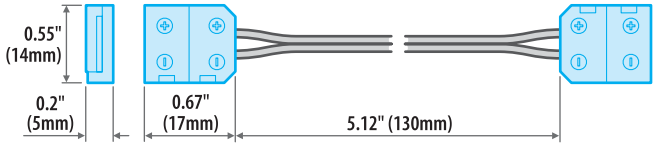


Multi-color (RGB)

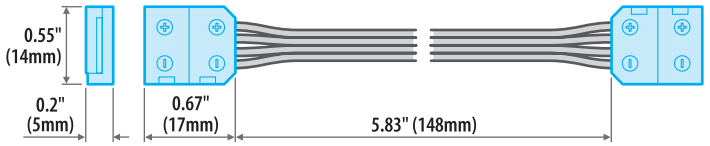


Link cable dimensions

Single color (SC)



Multi-color (RGB)

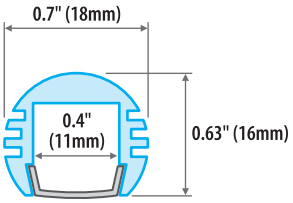


Channel dimensions

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' (1.21mm).

Flex pendant channel

[FLK PEN]

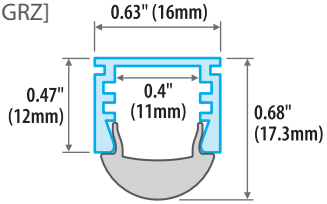


Flex 45 degree channel

[FLK 45D]

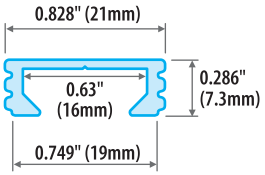
Flex graze channel

[FLK GRZ]



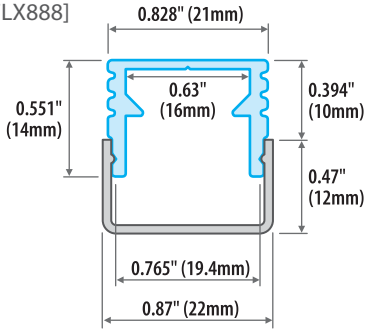
Flex channel low profile

[FLX444]



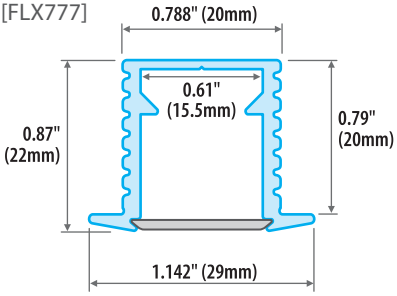
Flex channel tall profile

[FLX888]



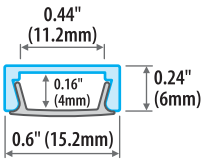
Flex channel recessed

[FLX777]



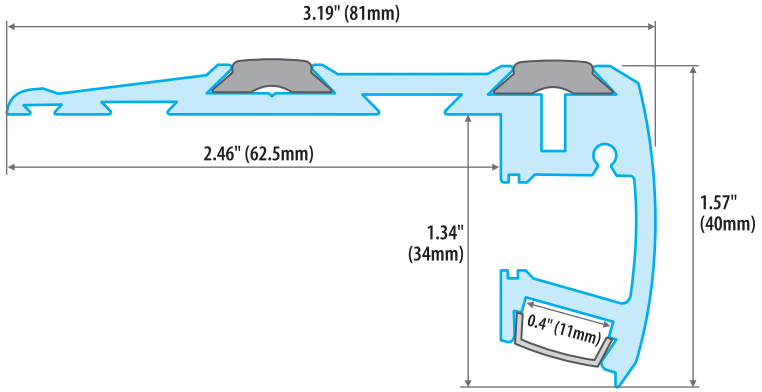
Flex mini channel

[FLK MIN]



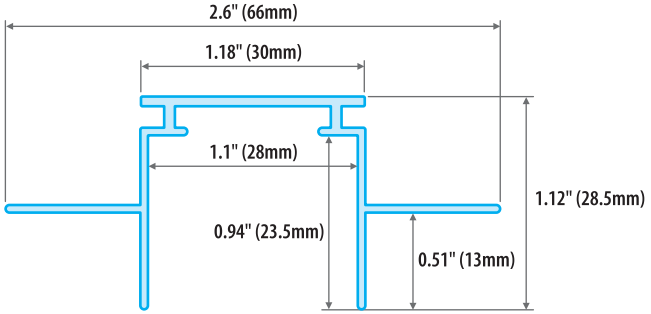
Flex step channel

[FLK STP]

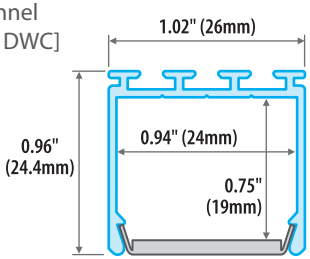


Flex drywall channel

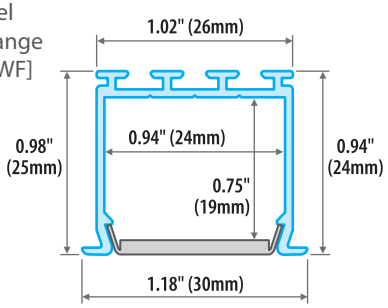
Mount
[FLK DWM]



Channel
[FLK DWC]



Channel
with flange
[FLK DWF]



Flex II specifications

	Single color (SC)	Multi-color (RGB)
Beam angle	120°	120°
Color temperature (CCT)	2400K, 2700K, 3000K, 3500K or 4000K	n/a
Illuminance (lm/ft^2)	289 @ 2400K 303 @ 4000K	106
Efficacy (lm/W)	65 @ 2400K 69 @ 4000K	24
Color Rendering Index (CRI)	81 @ 2400K 86 @ 4000K	n/a
Lumen maintenance (L_{70})	50,000 hours (25°C max)	50,000 hours (25°C max)
Operating voltage	12VDC	12VDC
Power consumption	3W per foot 10W per meter 50W per 16.4' (5m) spool	4.45W per foot 14.6W per meter 73W per 16.4' (5m) spool
Dimming control	Pulse width modulation	Pulse width modulation
Maximum overall length	16.4' (5m)	16.4' (5m)
Dimensions (W x H x L)	0.43" x 0.18" x 16.4' 11.11 x 4.7 x 5000mm	0.43" x 0.18" x 16.4' 11.11 x 4.7 x 5000mm
Operating temperature	32°F to 104°F 0°C to 40°C	32°F to 104°F 0°C to 40°C
Housing	Copper strip, white coating 3M™ adhesive backing	Copper strip, white coating 3M™ adhesive backing
Certifications	ETL C US LISTED, CE, RoHS	

Mounting surface advice

The 3M™ VHB adhesive applied to the back of Flex II 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.

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.
- Flex Products: 3 Years (1,095 days) from the date of purchase.
- Controllers: 2 Years (730 days) from the date of purchase.

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

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

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

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

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

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

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

www.acclaimlighting.com