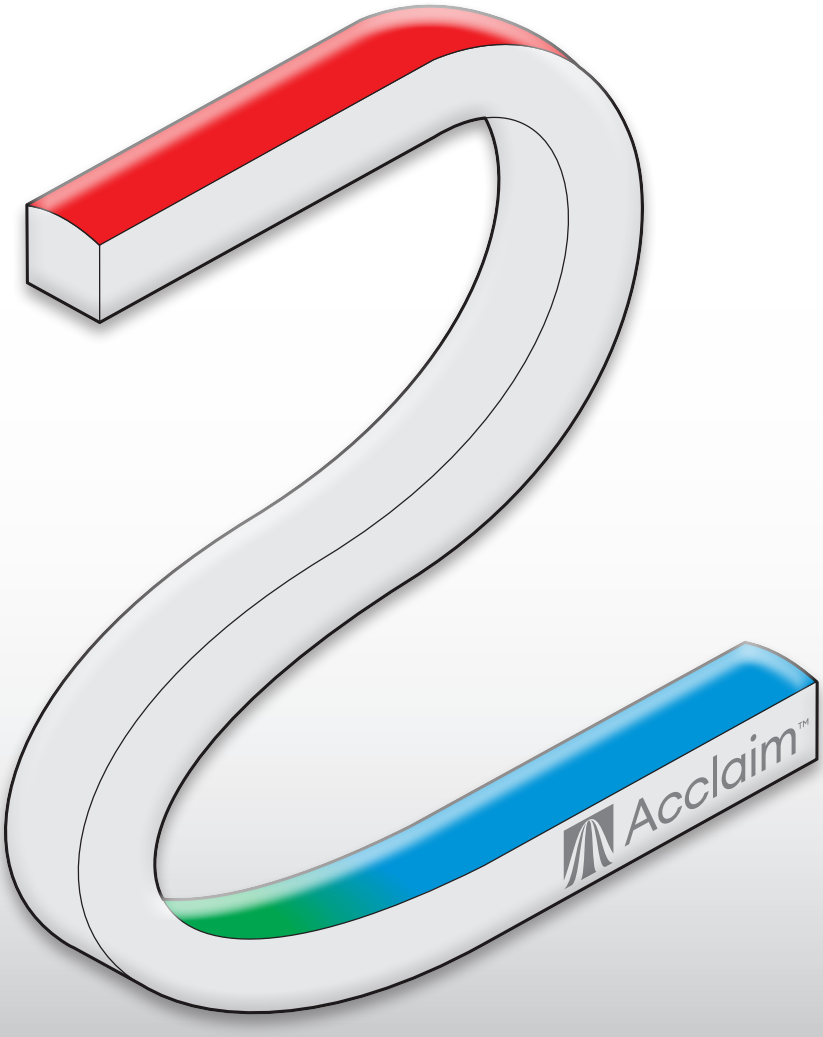
Acclaim™



Flex Tube Pixel™

GEN 2

User guide

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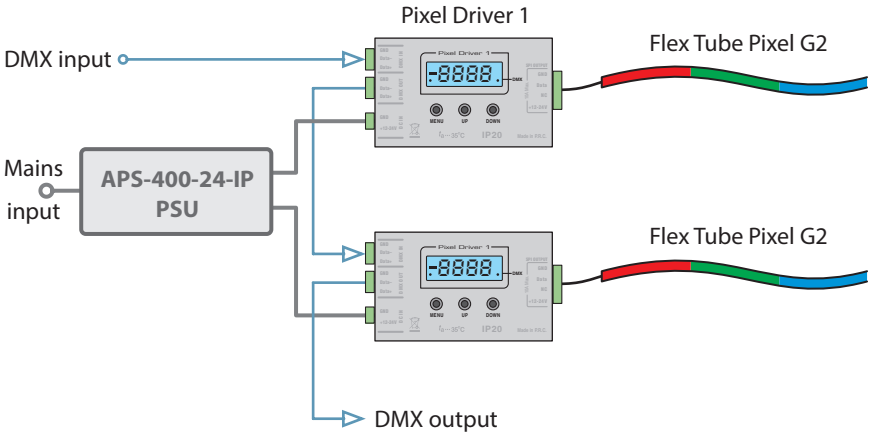
Introduction

Welcome

Welcome to the Flex Tube Pixel from Acclaim Lighting. Like all Flex Tubes, these flexible LED powered strips produce a greatly homogenized light output along their full length. The difference with the Pixel variant is that it is internally split into 60 separate segments per 16' (5m). Each segment is individually addressable so that you can apply different mixes of red, green, blue (and white on some models) colors to each segment. The segments closely abut each other and, combined with the homogenizing effect of the tube optics, produce smooth color transitions between the segments. Designed from the outset for external applications, Flex Tube Pixel strips are rated to IP68 and can be submersed up to 6.5 feet (2m) in depth, although the IP20-rated controllers need to be fully protected.



Flex Tube Pixel strips can be controlled either individually by their own dedicated Pixel Driver 1 modules (shown above) or multiple strips can be collectively controlled by a Pixel Driver 400 unit (see next page). A 3-wire SPI cable (which combines serial data and DC power) is used to link each Flex Tube Pixel with its respective controller.

Safety

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

Maintenance

CAUTION: Always isolate mains power before starting maintenance operations.

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

Cleaning

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

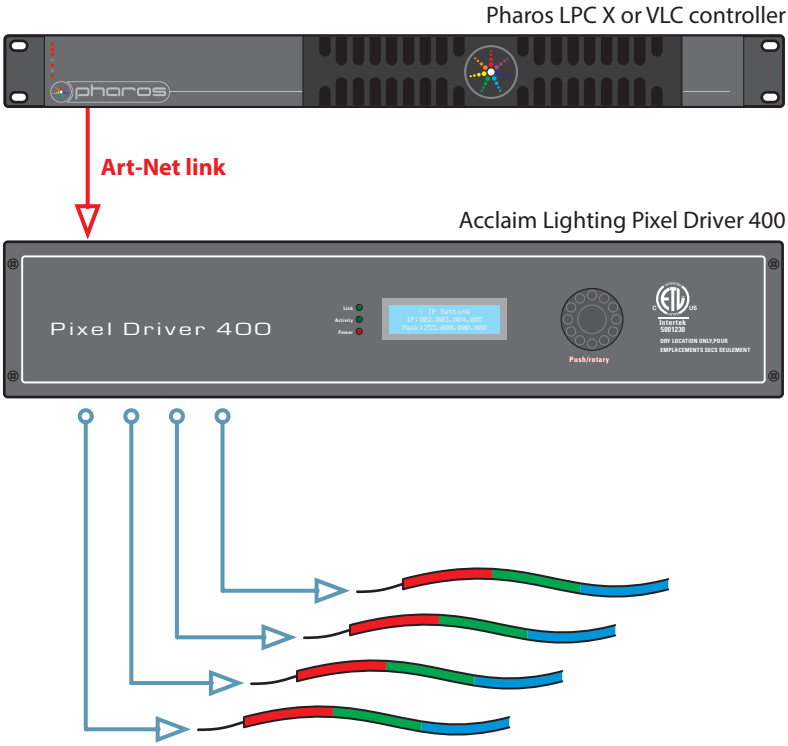
Large scale installations

A common requirement is to drive large arrays of Flex Tube Pixel strips. To achieve this we offer a tried and trusted hybrid solution using Pharos controllers and one or more Acclaim Lighting Pixel Driver 400 units.

A base choice of two Pharos controllers is offered:

- **LPC X** - Capable of controlling multiple zones across a selectable number of DMX universes; from 10 to 100 (5,120 channels up to 51,200).
- **VLC** - Able to play video content across a single zone of many DMX universes, selectable from 50 DMX universes up to 1500 (25,600 channels up to 768,000).

Programming for both types is carried out using the free Pharos Designer 2 software.



Flex Tube Pixel G2 strips (one per universe)

The ArtNet output from the Pharos controller is fed to one or more Acclaim Lighting Pixel Driver 400 units, each of which has eight SPI outputs and can control Flex Tube Pixel strips up to a maximum of 400W total load.

Bends, feeds, lengths and colors

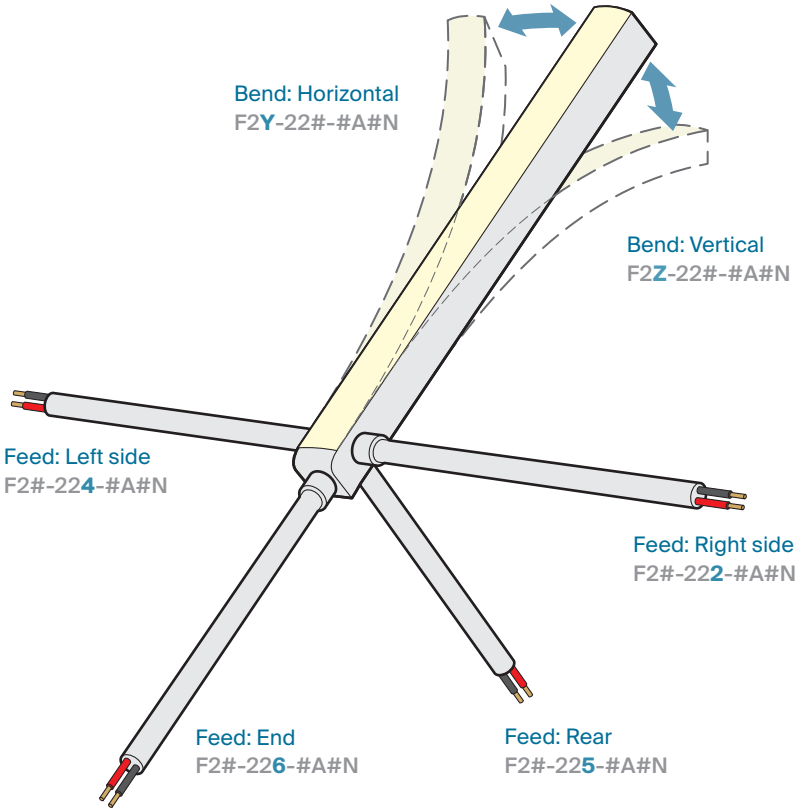
Flex Tube Pixel strips are available with two bend options, four choices of power feed and multiple LED emitter colors, which can be mixed in any combination to suit your installation.

The overall order code is arranged as follows:

F2#-22#-#A#N

- Bend
- Feed
- Length : **A** 16.4' (5m) / **X** Custom
- LED emitter color : **S** RGB / **Q** RGBW (W=3000K) / **R** RGBW (W=4000K)

The bend and feed options affect the order code as follows:



Installation

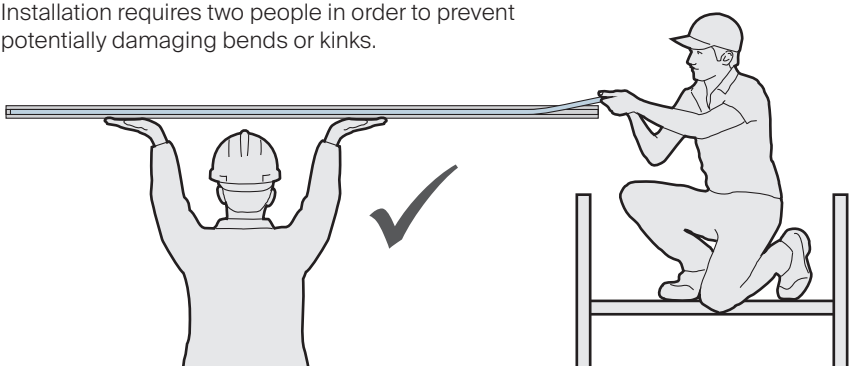
Take great care to avoid damage during installation

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

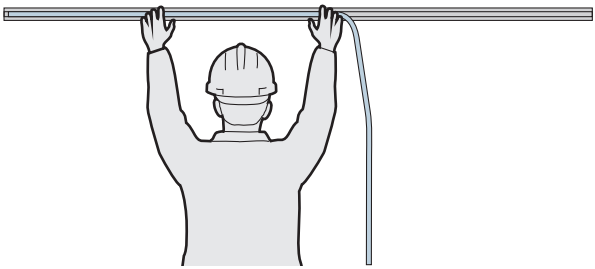
- **Two person install** - see below.
- **Unpacking** - see page 6.
- **Bending Flex Tubes** - see page 7.
- **Cable care** - see page 8.
- **Avoid aligning with expansion joints** - see page 9.
- **Leave room for expansion** - see page 10.

Two person install

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



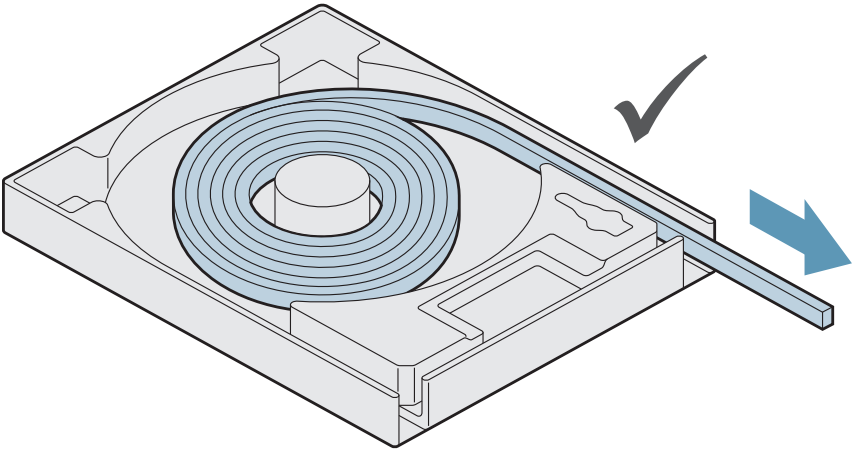
- Do not attempt to install Flex Tube into the mount channel alone or allow the Flex Tube to bend in the opposite plane from the intended vertical or horizontal curve (model dependent).



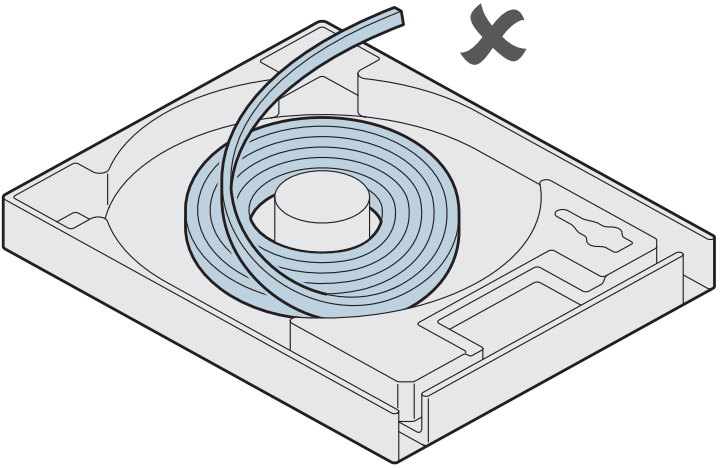
Unpacking

CAUTION: Each Flex Tube contains a delicate LED emitter tape which is designed to bend in one plane only (model dependent). Always take great care to avoid twists and kinks or bends in the opposite plane from the intended vertical or horizontal curvature. Damage can be caused by incorrect handling, resulting in a failed product.

- When unpacking from the supplied box, always extract the Flex Tube by carefully pulling it out through the intended box opening:



- Never pull the Flex Tube up from the coil:



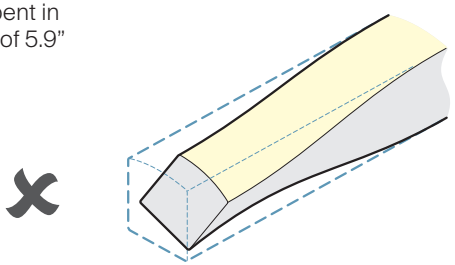
- Keep the Flex Tube as straight as possible prior to installing into the mount channel.
- Never bend the Flex Tube more than 15° from straight (in the opposite plane from the intended vertical or horizontal curve - model dependent).
- Installation requires two people in order to prevent potentially damaging bends or kinks. See “Two person install” on page 5.

Bending Flex Tubes

Flex Tube Pixel strips are designed to be bent in one axis only - to a minimum bend radius of 5.9" (150mm):

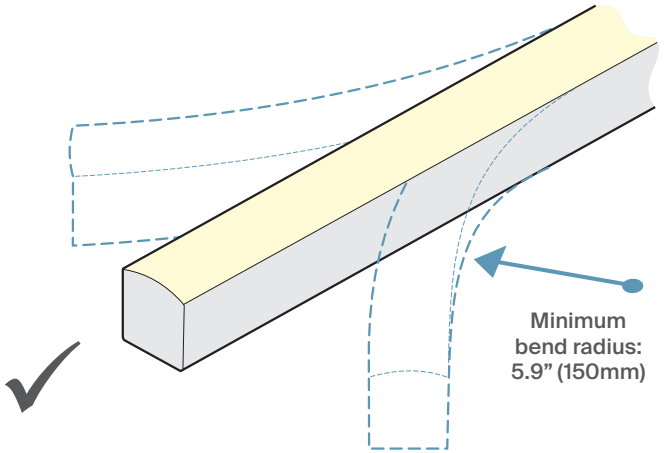
Important

Do not twist; or bend in the wrong direction. Damage will be caused to the internal circuitry.



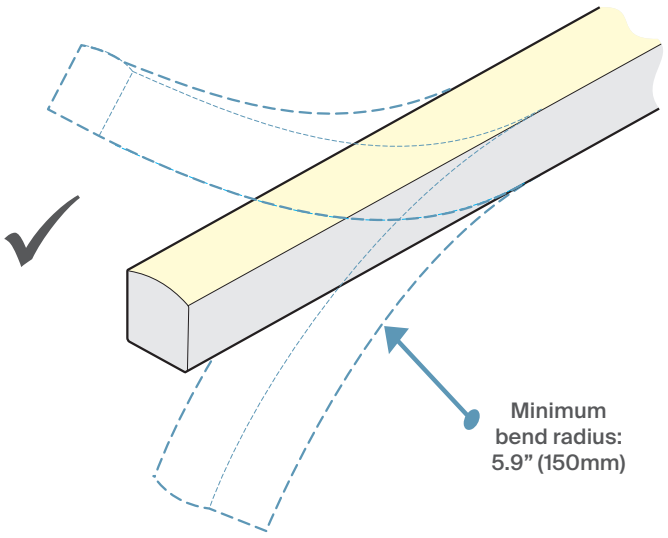
F2Y models

Horizontal bend only



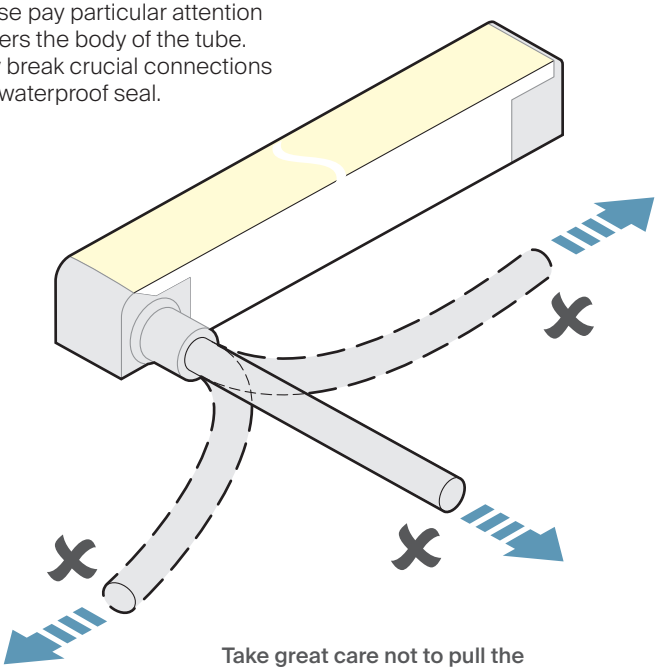
F2Z models

Vertical bend only



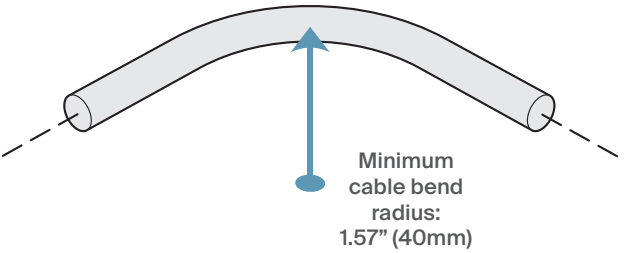
Cable care

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

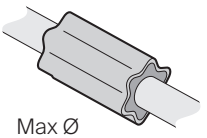


Take great care not to pull the feed cable outward from the tube or bend it sharply in any direction.

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



Minimum cable bend radius: 1.57" (40mm)

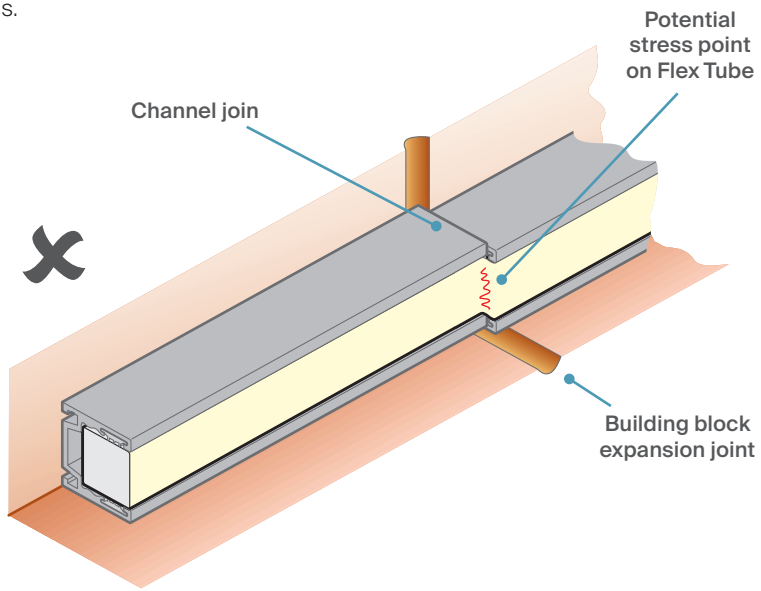


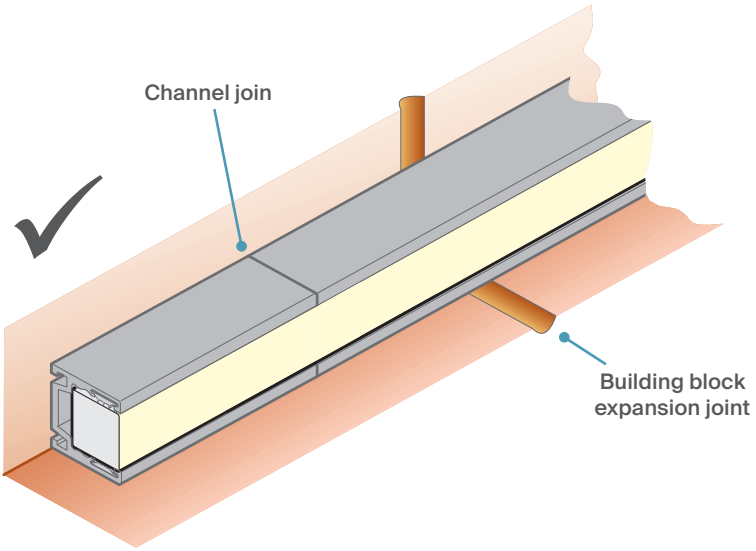
Max Ø 0.59" (15mm)

Note: Each feed cable has a metal-encased joint roughly 5" (130mm) from the inlet, which must not be removed.

Avoid aligning with expansion joints

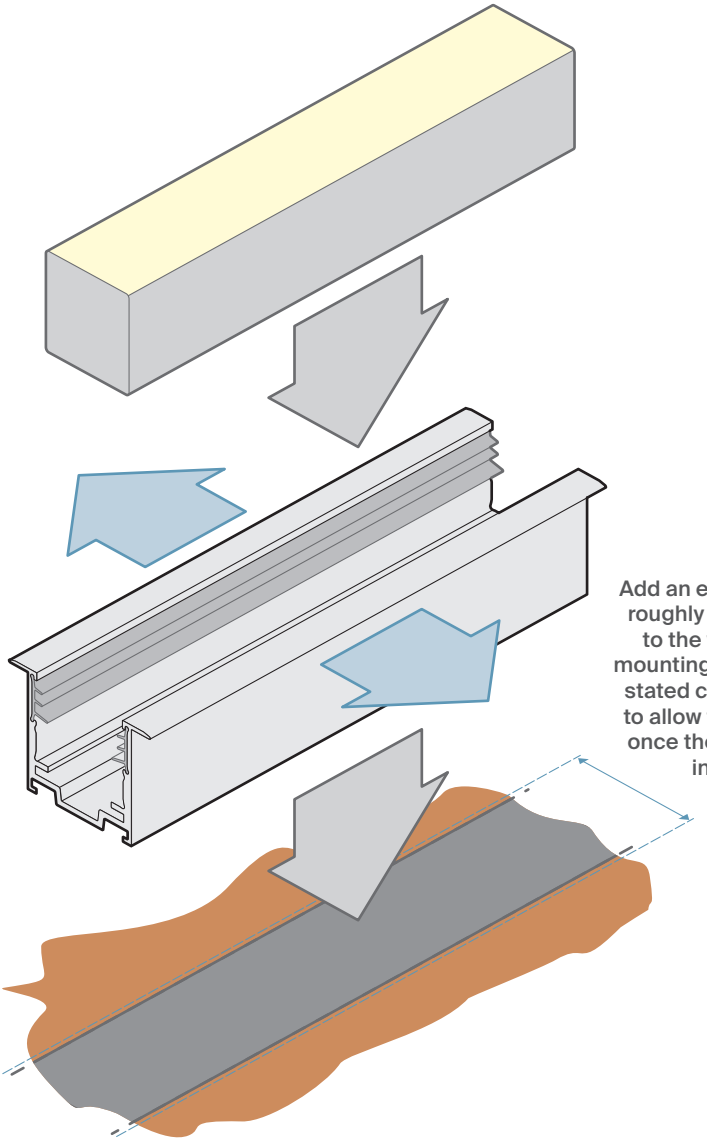
If a mounting surface has expansion joints (such as seams between building blocks), ensure that none of the joins between successive Flex Tube channels align near any of the expansion joints. This will avoid placing potential stress points on the Flex Tube within the channel at the join locations.





Leave room for expansion

When placing channels in-ground, leave an extra margin (over the stated channel width) to allow for the slight expansion of the channel once the Flex Tube is positioned in place. An additional 1/16" (1.5mm) should help ensure the Flex Tube is easy to fit and is not squeezed once it is in place.



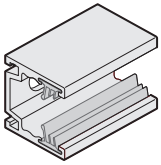
Add an extra margin of roughly 1/16" (1.5mm) to the width of the mounting hole (over the stated channel width) to allow for expansion once the Flex Tube is inserted

Mounting channel kits

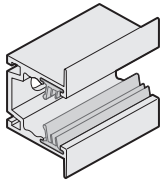
Surface and recessed

These kits are used to mount Flex Tube Pixel strips onto/into solid surfaces.

Kit contents



Mounting channel (0.79”/20mm, 3.28’/1m or 6.56’/2m lengths)



Recessed mounting channel (0.79”/20mm, 3.28’/1m or 6.56’/2m lengths)

Self-tapping mount screw(s) x1, 5 or 10 (depending on channel length)

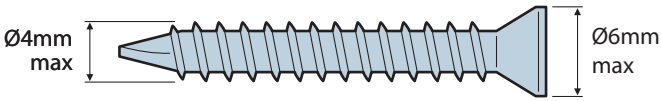
See “Mounting channels - surface and recessed” on page 28

To use a mounting channel kit

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

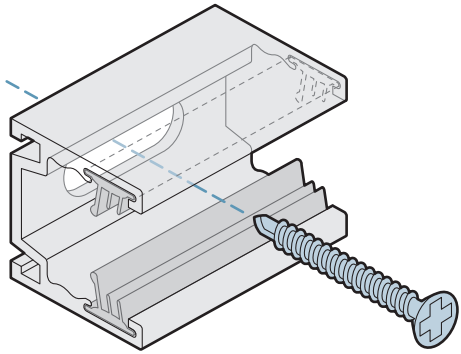
Each channel is supplied with an appropriate number of countersunk self-tapping screws; these (M3.5 x 25) screws are best suited to mounting on wooden or metal plate surfaces. The supplied screw(s) may also be suitable for other surfaces in combination with wall plugs.

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



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

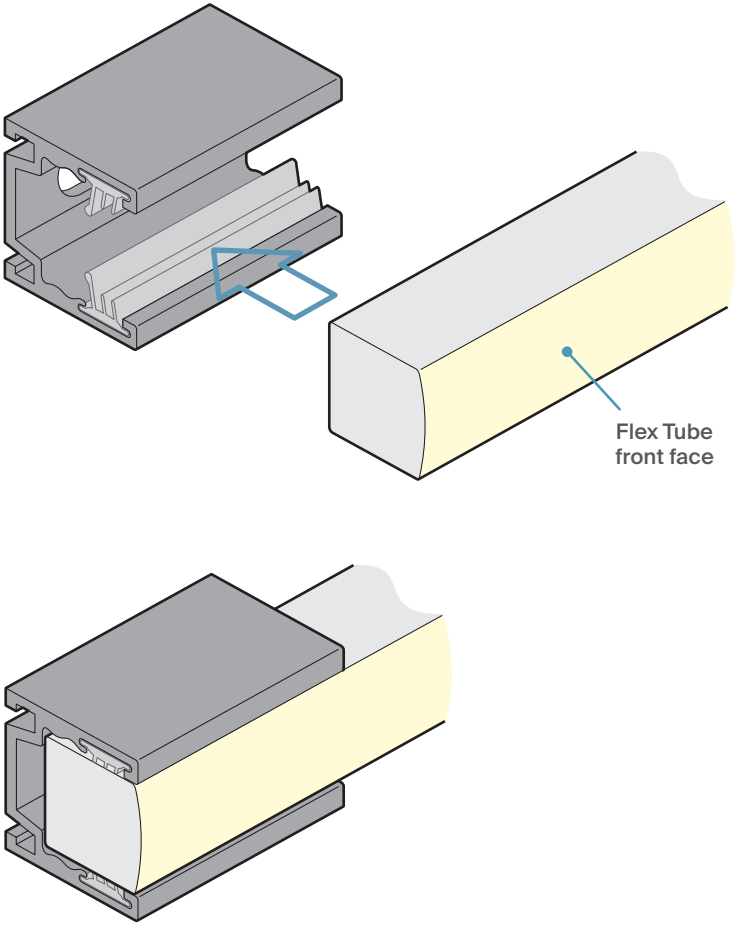
- 0.79” (20mm) mounts have one slotted hole,
- 3.28’ (1 meter) mounts have five slotted holes, spaced 7.87” (200mm) apart,
- 6.56’ (2 meter) mounts have ten slotted holes, spaced 7.87” (200mm) apart.



continued

3 Push the Flex Tube Pixel strip (front face outwards) fully into the mount channel until it engages with the silicone seals.

Note: To further aid long term stability - If mounting inverted or vertically, we recommend that you add dots of silicone sealant (Dow Corning® 799, 1199 or equivalent) at regular intervals between the sides of the Flex Tube and the inside faces of the mounting channel as it is pushed into place.

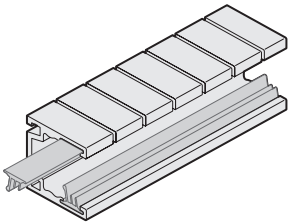


- If you should need to remove the Flex Tube Pixel strip, gently pull it out from the mount channel, taking care not to twist the strip.

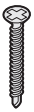
Flexible

This kit is used to support Flex Tube Pixel strips (with horizontal bend profiles) so that they can be formed into curved shapes.

Kit contents



Flexible mounting channel
(3.28'/1m or 6.56'/2m lengths)



Self-tapping
mount screw(s)
5 or 10 (depending
on channel length)

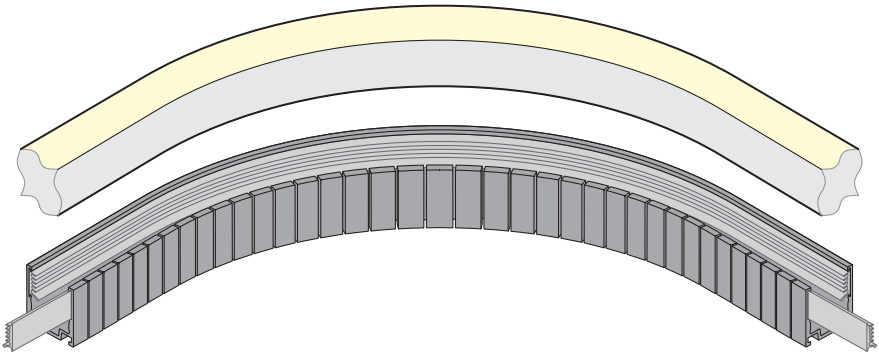
See "Mounting channels - flexible" on page 29

To use a flexible mounting channel kit

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

Each channel is supplied with an appropriate number of countersunk self-tapping screws; these (M3.5 x 25) screws are best suited to mounting on wooden or metal plate surfaces. The supplied screw(s) may also be suitable for other surfaces in combination with wall plugs (see page 11). Mounting holes are spaced every 4.57" (116mm) - on every tenth segment.

2 Attach the mount channel to the intended surface to carefully form the required shape, taking all appropriate precautions as you do so. As bends are applied to the channel, ensure that the silicone seal on the segmented side is free to move along the channel. The silicone seal on that side has an excess length to allow it to adapt to the formed shape. Once the channel is fixed in place, the excess silicone seal at each end can be trimmed to size. Observe the minimum bend radius of 5.9" (150mm) for the Flex Tube.



3 Push the Flex Tube Pixel strip (front face outwards) fully into the mount channel until it engages with the silicone seals.

Note: To further aid long term stability - If mounting inverted or vertically, we recommend that you add dots of silicone sealant (Dow Corning® 799, 1199 or equivalent) at regular intervals between the sides of the Flex Tube and the inside faces of the mounting channel as it is pushed into place.

Connecting and controlling Flex Tube Pixel strips

Flex Tube Pixel strips are run at 24VDC and consume 6.7W per foot (22W per meter).

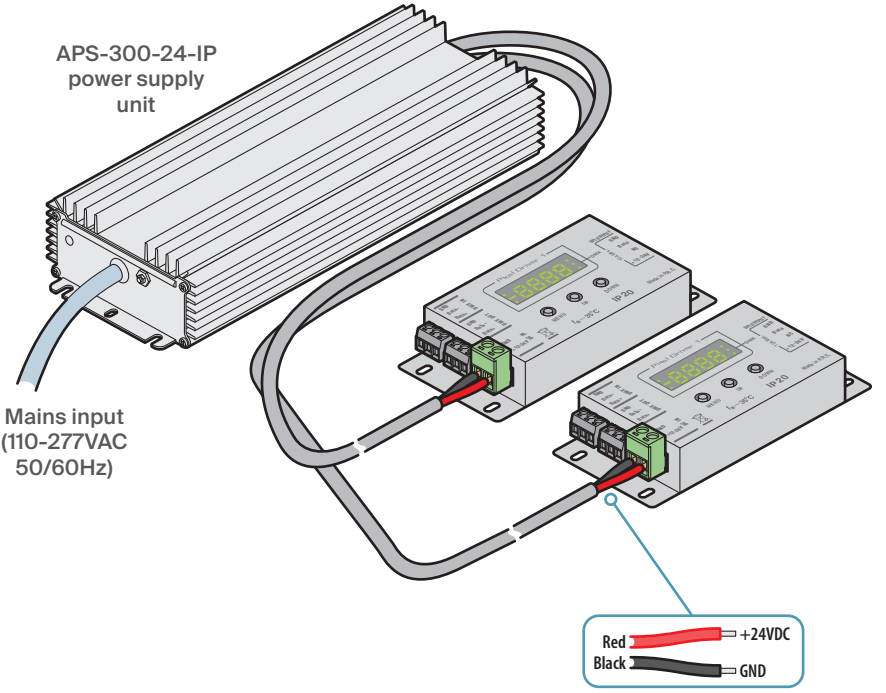
A 9.84' (3m) feed cable is supplied, injection molded to the strip. This 3-core cable has bare tails. Further connection cables (not supplied) used to link Flex Tube Pixel strips to the driver unit should follow these guidelines:

- Up to 32 feet (10m) total length 18 AWG (2.081mm^2)

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

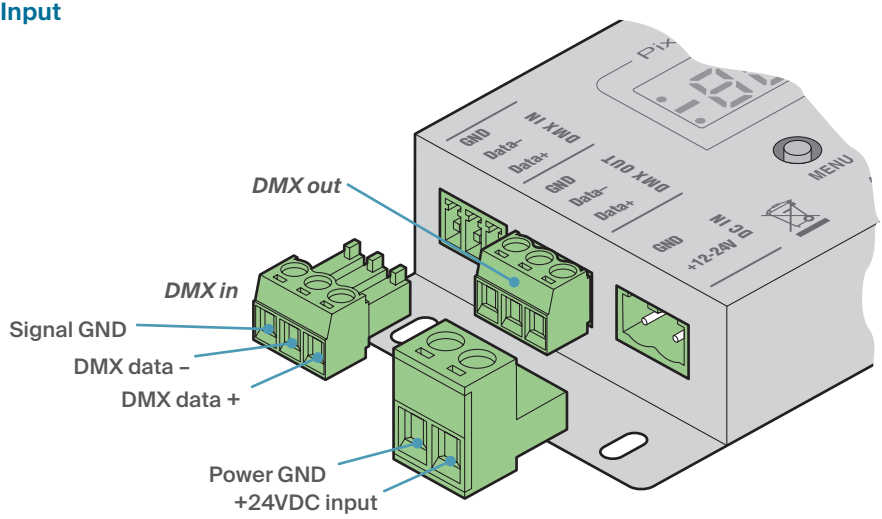
Pixel Driver 1 power supply

This IP67-rated APS-300-24-IP power supply can power two Pixel Driver 1 units and their Flex Tube Pixel strips.



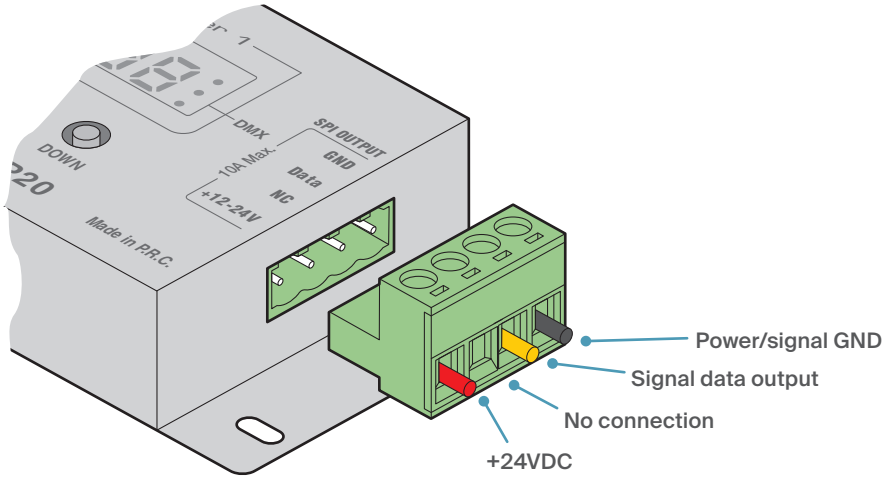
Pixel Driver 1 connections

Input



DC power in (see page 14)

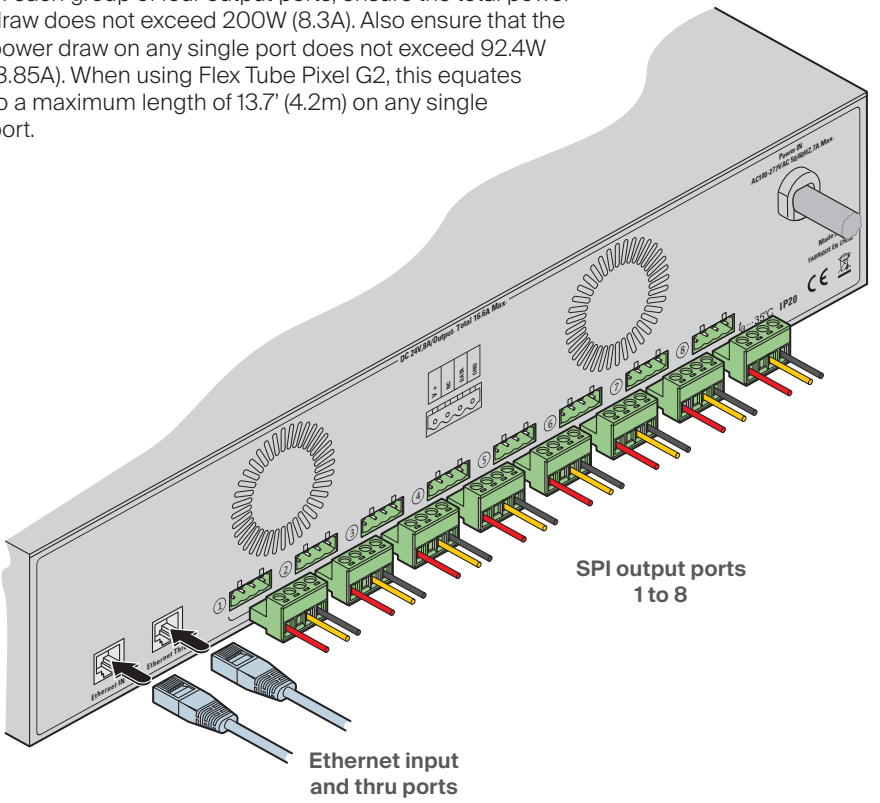
Output

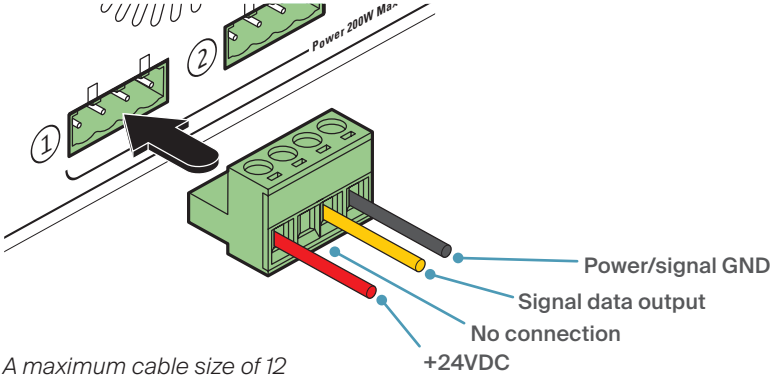


Pixel Driver 400 connections

Each Pixel Driver 400 unit accepts an Art-Net control input via Ethernet and provides an Ethernet Thru port to allow multiple units to be directly daisy-chained. Each unit has eight SPI outputs labeled 1 to 8 to which Flex Tube Pixel strips can be directly connected. The eight ports are powered in two groups: ports 1 to 4 and ports 5 to 8.

In each group of four output ports, ensure the total power draw does not exceed 200W (8.3A). Also ensure that the power draw on any single port does not exceed 92.4W (3.85A). When using Flex Tube Pixel G2, this equates to a maximum length of 13.7' (4.2m) on any single port.





Note: A maximum cable size of 12 AWG (4mm^2) can be used directly within the terminal block contacts.

Configuration

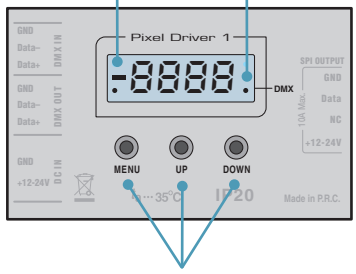
The Pixel Driver 1 controller can drive up to 16.4' (5m) of Flex Tube Pixel tape. The behavior of the connected Flex Tube Pixel is determined using the control menu.

Pixel Driver 1

Menu navigation

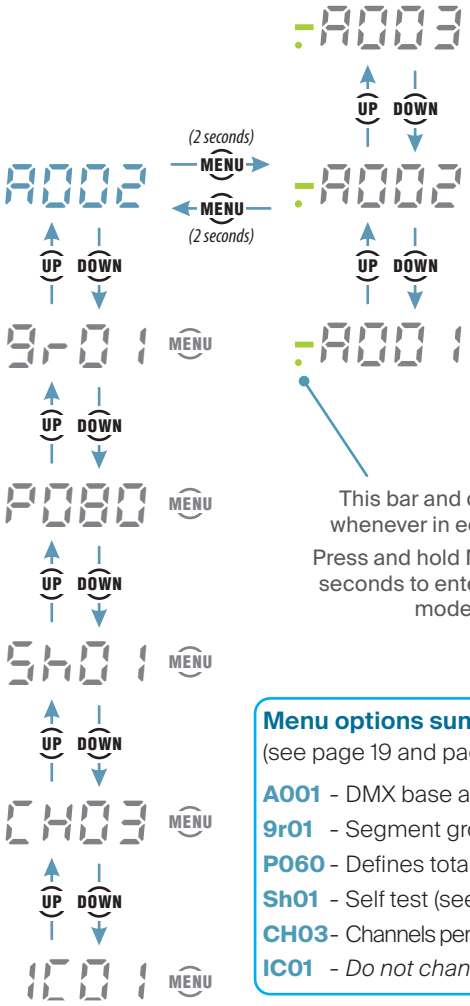
Use the three control buttons to navigate around the menu and alter settings as necessary. Press and hold the **MENU** button for two seconds to enter and exit edit mode within a menu option.

Note: You must exit from edit mode within one menu option before you can move to a different menu option.



MENU: Press and hold for 2 seconds to enter/exit edit mode for the current menu option.

UP/DOWN: Use to move between menu options and to change values within a menu option in edit mode.



Menu options summary

(see page 19 and page 20 for details)

- **A001** - DMX base address
- **9r01** - Segment grouping (determines pixel size)
- **P060** - Defines total pixels under control
- **Sh01** - Self test (see page 20)
- **CH03** - Channels per segment (*CH03* for RGB, *CH04* for RGBW)
- **IC01** - *Do not change*

Configuring the Pixel Driver 1

During configuration, four options determine how the Flex Tube Pixel will operate:

- **A001** - The DMX base address,
- **9r01** - The segment grouping (pixel size),
- **P060** - The total number of pixels,
- **CH03** - The number of DMX channels needed per pixel (03 for RGB, 04 for RGBW).

The *IC01* option must remain in its default setting and the *Shxx* option is used for performing self tests (see page 20).

The various menu options are individually explained, beginning on page 19.

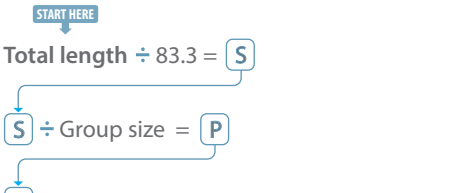
Setup shortcuts

If you're in a hurry, apply these settings to achieve common configurations:

16.4' (5m) length with 60 small RGB pixels (DMX addr: 001)	16.4' (5m) length with 30 medium RGB pixels (DMX addr: 001)	16.4' (5m) length with 15 large RGBW pixels (DMX addr: 001)	6.5' (2m) length with 12 medium RGB pixels (DMX addr: 001)
A001 **9r01** **P060** **CH03** *IC01*	**A001** **9r02** **P030** **CH03** *IC01*	**A001** **9r04** **P015** **CH04** *IC01*	**A001** **9r02** **P012** **CH03** *IC01*

Pixel size and DMX channel calculation

For custom Flex Tube Pixel configurations you may find the equation below helpful to calculate the required pixel range (Pxxx) setting and also to discover the total number of DMX channels required to control the whole strip.



Notes:

***Total length** must be in millimeters*

***Group size** is the 9r01 setting*
***P** is the P060 setting*

***Channel size** is the CH03 setting (03 for RGB, 04 for RGBW)*

Explanation of the above calculation

Begin by dividing the total length of the strip (in millimeters) by the segment length (83.3) to gain the number of segments *(S)*. Then divide the *S* value by the required *Group size* (ie the number of segments [1, 2, 4 or 8] that will be grouped together to form each pixel *(P)*. You need to configure the chosen group size within the menu using the corresponding *9r01/9r02/9r04/9r08* setting. You also need to enter the calculated *P* value into the *Pxxx* option. If you wish to know the number of DMX channels that will be required to control the whole strip, multiply the *P* value by either 3 (for RGB models) or 4 (for RGBW models). Ensure that the *CHxx* setting is correspondingly configured to either *CH03* or *CH04* in the menu.

Note: At each stage, round down any non-whole numbers.

Pixel Driver 1 Menu options

This section discusses each of the Pixel Driver 1 menu options.

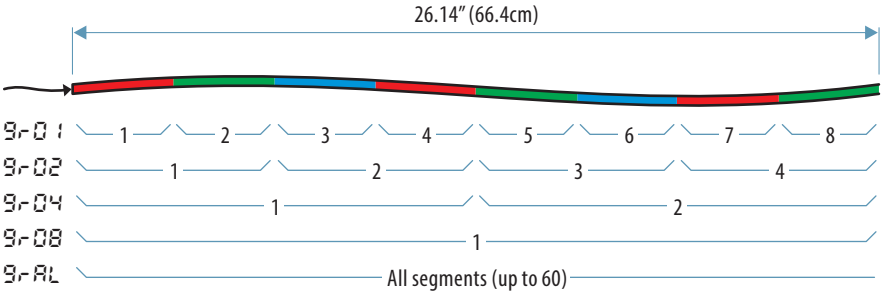
DMX base address (Axxx)

Configures the base DMX address for the first color (red) of the first segment, or group of segments* of the Flex Tube Pixel. Successive DMX channels control the remaining colors within the various segments. When setting the base address, ensure sufficient channels remain at the upper end to control all of the pixels. For instance, a 5 meter RGB Flex Tube Pixel strip with 60 pixels requires 180 DMX channels in RGB form or 240 in RGBW, so the base address in such a case cannot be greater than 332 for RGB or 272 for RGBW.

* As determined by the **9rxx** setting.

Segment grouping (9rxx)

Determines how the various segments of the Flex Tube Pixel are matched to the incoming group(s) of three (RGB) or four (RGBW) DMX channels to form the controllable pixels (i.e. pixel resolution). The options range from the assignment of a set of channels for each individual segment (i.e. a pixel size of 1 segment: ***9r01***); up to assigning one set of channels to control the whole strip (i.e. up to 60 segments as one pixel, controlled by just 3 or 4 channels: ***9rAL***).



The diagram above shows how the eight segments within each 26" (66cm) section are affected by the ***9rxx*** option; these settings would be repeated across the remaining length of the Flex Tube Pixel strip.

Pixel range (Pxxx)

Defines the total number of pixels under control. This option is interdependent with the **9rxx** segment grouping setting, which determines how many segments form each pixel, and how many DMX channels are required to control them.

9rxx	Pxxx	Number of DMX channels required for 16' (5 meters)
01	060	180 *(RGB)* or 240 *(RGBW)*
02	030	90 or 120
04	015	45 or 60
08	010	24 or 32
AL	010	3 or 4

This option has a minimum setting of *010*. There are no major issues with setting the **Pxxx** value too high for a given number of pixels*; however, if set too low, the pixels which lie beyond the stated limit will most likely illuminate beyond control.

** The only minor issue caused by setting the Pxxx value higher than the actual number of pixels becomes apparent when the self tests Sh03 and Sh04 are performed. In Sh03, the scrolling pixel will disappear at the upper end (while it visits non-existant segments) before running back down the length of the strip. In Sh04, the halfway split in the strip will move toward the upper end.*

Self test mode (Shxx)

This menu option provides self test routines designed to help check for stuck or failed emitters within an installation. No DMX input is required to run these tests.

To run a self test

1 Configure the required segment grouping and pixel range settings for the installed Flex Tube Pixel strip.

2 Use the **DOWN** button repeatedly until the display shows **Shxx** *(where xx is a value between 01 and 04)*.

3 Press and hold the **MENU** button for roughly two seconds until the bar and dot on the left side of the display start flashing.

4 Use the **UP/DOWN** buttons to choose any of the four test sequences:

- **Sh01** - Shows a rapid sequential strobing through all red, green and blue[1] emitters,
- **Sh02** - Slowly fades between all red, green and blue[1] emitters,
- **Sh03** - Shows a band of pixels which scroll from end to end and back again, alternately using the red, green and blue[1] emitters[2],
- **Sh04** - Shows two separate slow fades in each half of the strip, alternately using the red, green and blue[1] emitters[2].

[1] Plus white for RGBW versions.

[2] The exact manner in which the Flex Tube Pixel strip responds to these tests is determined by the 9rxx and Pxxx menu settings, see page 19.

5 Press and hold the **MENU** button for roughly two seconds until the bar and dot on the left side of the display stop flashing.

Note: The last state of the test pattern will remain until either a DMX input is applied or the power input is cycled.

Channels per segment (CH0x)

Determines how many DMX channels are required to control each segment. Valid settings are:

- **CH03** for RGB strips, or
- **CH04** for RGBW (QS or QW4) strips.

Integrated circuit (IC01)

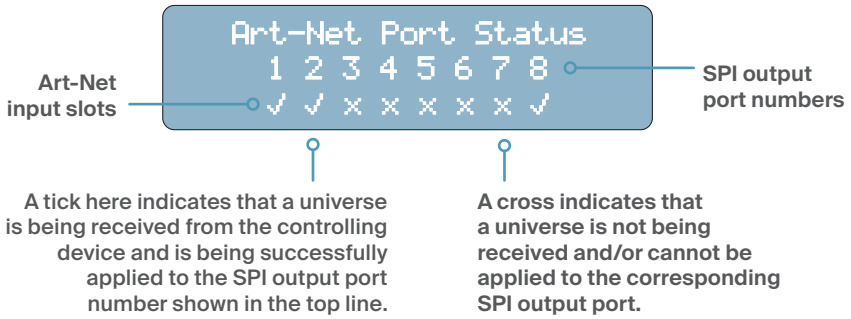
Determines the type of addressable driver ICs used within the connected Flex Tube Pixel. Currently the only valid option is **IC01** and this setting should not be changed.

Pixel Driver 400 front panel

The Pixel Driver 400 front panel uses a clear LCD display plus multiple indicators to provide status information about its operation.

Standby screen

When you are not performing a task within a menu, the Pixel Driver 400 will display a summary of the Art-Net universe inputs against SPI outputs:



Note: The standby screen will be unreadable if the backlight is off. See "Lock Setting" on page 24.

Indicators

To the left of the screen are three indicators. The red **Power** indicator is on whenever Pixel Driver 400 has a valid power input. The other two green indicators relate to the Ethernet network links. The **Link** indicator is on whenever a valid network link is sensed. The **Activity** indicator will flash as network activity occurs.

Assignment of universes and channels

Eight consecutive Art-Net universes will be assigned to the eight SPI output ports, beginning with the universe defined in the Art-Net Setting page within the menu (see page 23).

The 512 channels of each received Art-Net universe are applied to the relevant SPI output ports, such that each attached Flex Tube Pixel strip will begin at channel 1 and increment from there to determine the color mix of each pixel.

Channel assignment for RGB strips

Pixel 1	Pixel 2	Pixel 3
Channel 1: Red	Channel 4: Red	Channel 7: Red
Channel 2: Green	Channel 5: Green	Channel 8: Green
Channel 3: Blue	Channel 6: Blue	Channel 9: Blue

Channel assignment for RGBW strips

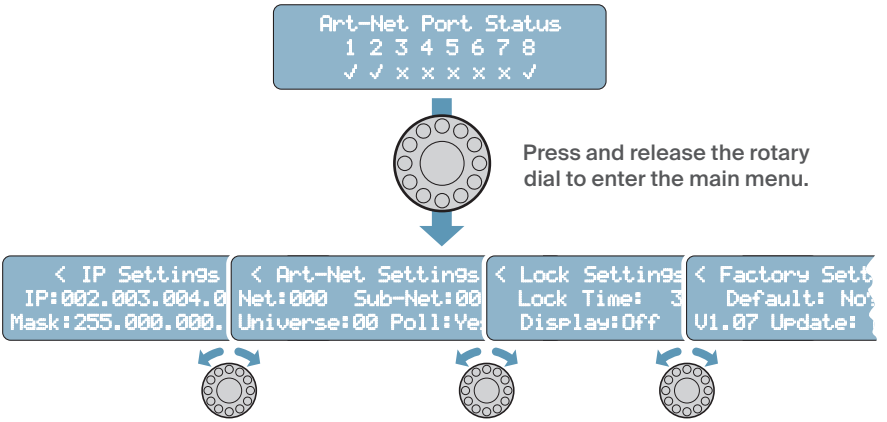
Pixel 1	Pixel 2	Pixel 3
Channel 1: Red	Channel 5: Red	Channel 9: Red
Channel 2: Green	Channel 6: Green	Channel 10: Green
Channel 3: Blue	Channel 7: Blue	Channel 11: Blue
Channel 4: White	Channel 8: White	Channel 12: White

Pixel Driver 400 main menu

The main menu is where all of the configuration details for Pixel Driver 400 are located.

To unlock and use a menu page

1 From the standby screen (or blank display, if the backlight is off), press and release the rotary dial. The Art-Net Setting page will be displayed:



2 Rotate the dial clockwise or counterclockwise to move between the four menu pages.

3 When the required page is shown, press and release the dial to unlock that page.

4 Rotate the dial to move the flashing cursor between the options within the page.

5 When the flashing cursor is over the required option, press and release the dial.

6 Rotate the dial to change the value of the option.

7 Press and release the dial to fix the chosen value of the option.

8 Repeat steps 4 to 7 for all options that need adjustment.

Notes:

Some pages require you to lock them again before your configuration changes are enacted.

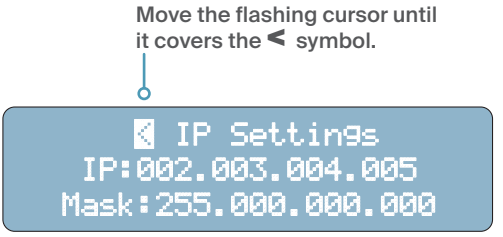
After a period of inactivity (selectable between 30 seconds and 8 minutes), the unit will return to the standby screen.

To lock and exit a menu page

1 Within a page, rotate the dial to place the cursor over the < symbol.

2 Press and release the dial to lock the page.

3 Rotate the dial to view other pages.



Configuring the Pixel Driver 400

Please see “Pixel Driver 400 main menu” on page 22 for general details about using the rotary dial control.

To configure the unit

1 Press and release the dial to enter the menu. The Art-Net Setting page will be shown first.

Note: The following steps can be carried out in any order.

2 Press and release the dial to unlock the **Art-Net Setting** page:

Art-Net Setting

a Use the Net, Sub-Net and Universe options to align the eight ports of the Pixel Driver 400 with the required consecutive universes being output by the controlling Art-Net device.

- **Net** a value between 0 and 127
- **Sub-Net** a value between 0 and 15
- **Universe** a value between 0 and 15

Using these three addresses in combination it is possible to choose from 32,768 separate universes. The address that you chose here will define the first of eight consecutive universes being output by the controlling device. When valid universes are detected, they will be applied in sequence to the eight SPI output ports. The standby screen (see page 9) will indicate which universes are being successfully received and passed through - an ‘**x**’ signifies that a universe is not being applied to an SPI output.

b If necessary, change the Poll option.

The correct setting of the Poll option relates to the use of controlling devices such as the Pharos system. If the Pharos system is outputting 32 universes or fewer, the Pixel Driver 400 Poll option should be set to **Yes**. If the Pharos system is outputting more than 32 universes, the Pixel Driver 400 Poll option should be set to **No**.

c Return the cursor to the **<** symbol. Press and release the dial to lock the page.

continued

3 Rotate the dial to display the **IP Setting** page. Press and release the dial to unlock the page:

IP Setting

a Use the IP option to configure the IP (Ethernet) address that is being used by the Art-Net controller. Art-Net is most often broadcast across address spaces in the ranges 002.*.*.* or 010.*.*.* *(where *.*.* can be any series of IP octets)*.

b Use the Mask option to configure an Ethernet subnet mask that matches the IP address being used. The 2.*.*.* and 10.*.*.* address ranges require a Class-A subnet mask of 255.0.0.0

c Return the cursor to the **<** symbol and click the dial to lock the page.

4 The remaining two pages perform 'house keeping duties' that are not directly related to configuring inputs and outputs.

Lock Setting

a The Lock Time option determines the interval between the last use of the rotary dial and a return to the standby screen. Interval options range from 30 seconds to 8 minutes.

b The Display option determines whether the backlight will remain on or off once the standby screen is displayed. The standby screen is useful for diagnostic purposes but will be unreadable if the backlight is off.

c Return the cursor to the **<** symbol. Press and release the dial to lock the page.

Factory Setting

a Use the Factory Setting Default option to erase all configuration and return the unit to its default settings.

b The Update option is a factory option only.

c Return the cursor to the **<** symbol. Press and release the dial to lock the page.

Further information

Troubleshooting

No light output is visible when expected.

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

Particular issues when using the Pixel Driver 400

If an issue arises, take steps to isolate the problem. At all times work from the basis of 'known good' before moving to the next step - data networks can become very complex in no time at all. Wherever possible, simplify the situation until a cause is isolated.

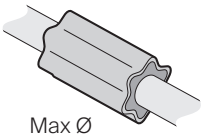
- Does the unit have power? Are the front panel indicators lit?
- Do you have an independent method to prove 'known good' the control feed?
- Do the IP address and subnet mask match those used by the controlling device? See page 24.
- Do the Art-Net settings match those used by the controlling device? See page 23.
- Check the standby screen to see whether valid universes are being received and applied to the SPI output channels. See page 21.
- Temporarily apply an intensity across all channels of the required Art-Net universes as you change the IP address and Art-Net settings within Pixel Driver 400. If you happen across the correct address, the connected Flex Tubes will then respond.
- Remember that while DMX universes are numbered from 1 upwards, Art-Net universes can start at 0. It is not uncommon for your universe transfer to be out by one.

Specifications

Colors	RGB, QS (Quad RGBW, W=3000K), or QW4 (Quad RGBW, W=4000K)
Beam angle	120°
Photometrics	146 lumens per foot
Length	Built to order lengths from 6.56" (166.6mm) to 16.4' (5m)
Voltage	24VDC
Power	6.7W per foot, 22W per meter
Lumen maintenance (L_{70})	50,000 hours
Amb. operating temperature	-40°F to 131°F (-40°C to 55°C)
Material	UV resistant silicone
Ingress protection	IP68 wet location, submersible* up to 6.56' (2m)
Impact resistance	IK08 Protected up to a 5 Joule impact
Weight	3.57 lbs (1.62 kg) - 5m spool
Certifications	

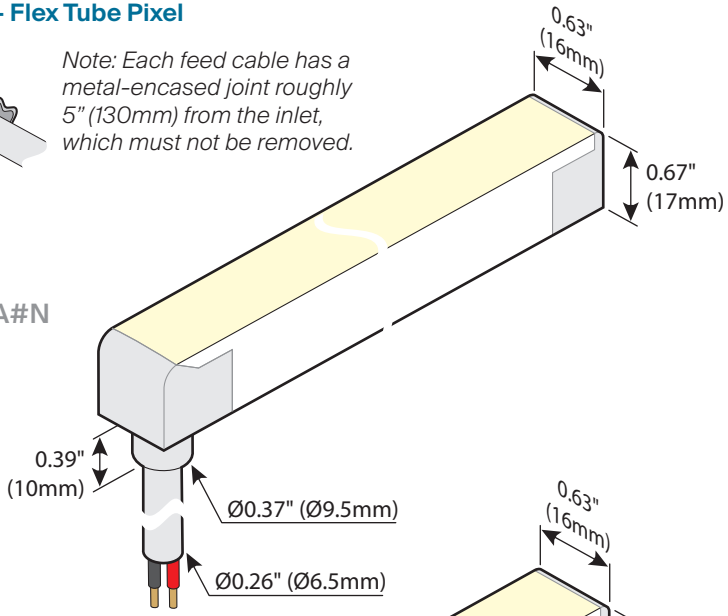
** UL approval limits submersible installation to non-human occupied and freshwater locations only. All cables must be landed in environmentally suitable junction boxes.*

Dimensions - Flex Tube Pixel

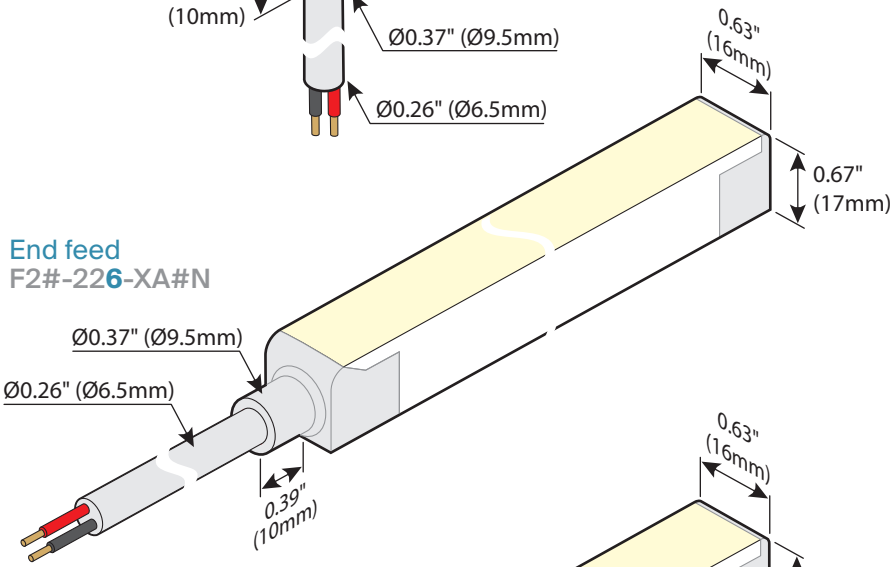


Note: Each feed cable has a metal-encased joint roughly 5" (130mm) from the inlet, which must not be removed.

Rear feed
F2#-225-XA#N

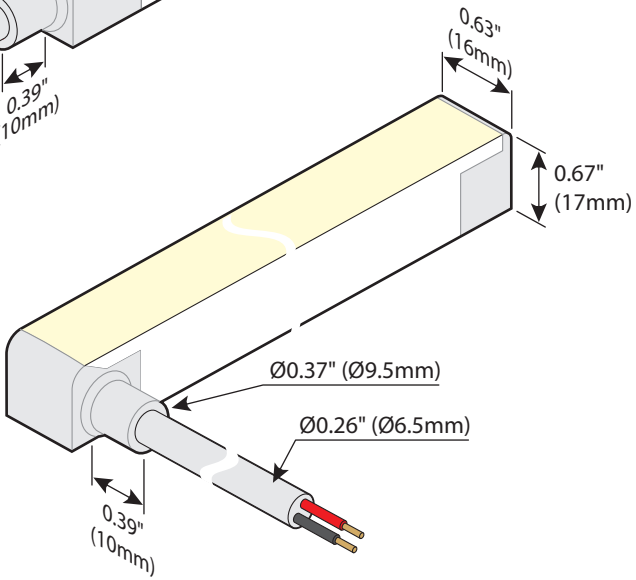


End feed
F2#-226-XA#N



Left side feed
F2#-224-XA#N

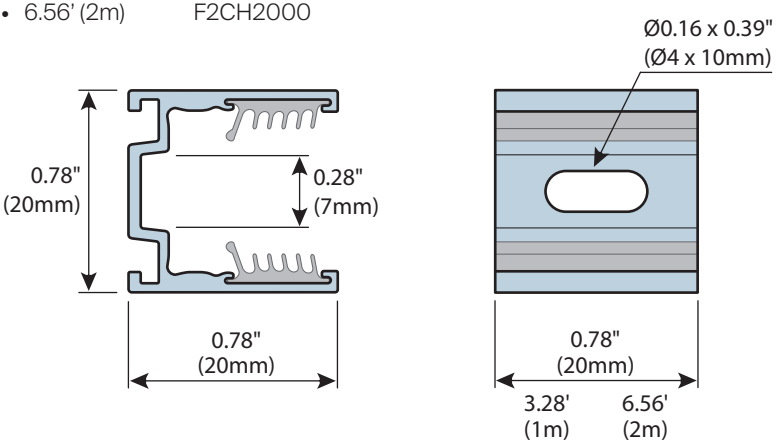
Right side feed
F2#-222-XA#N



Dimensions - Surface and recessed mounting channels

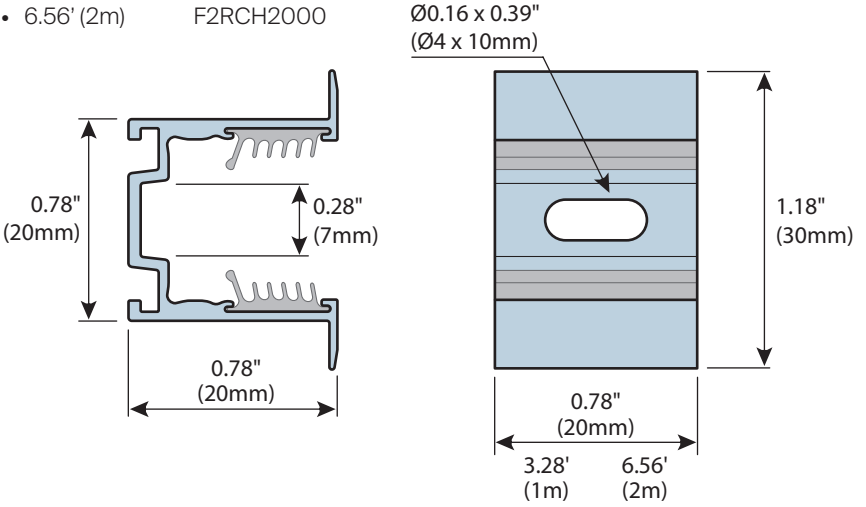
Surface mounting channel

- 0.78" (20mm) F2CH20
- 3.28' (1m) F2CH1000
- 6.56' (2m) F2CH2000



Recessed mounting channel

- 0.78" (20mm) F2RCH20
- 3.28' (1m) F2RCH1000
- 6.56' (2m) F2RCH2000



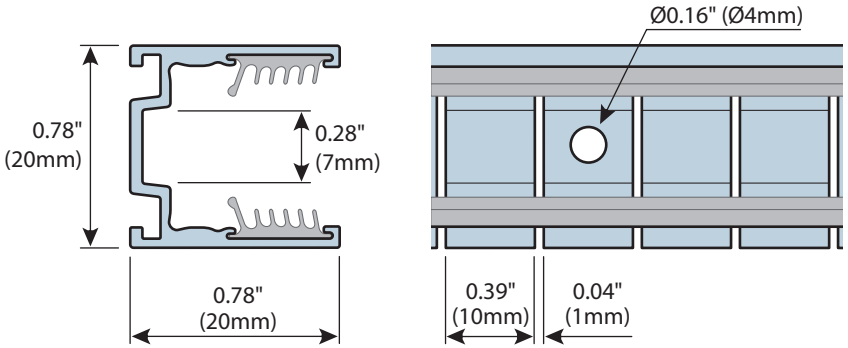
Slot spacing

On 1m and 2m lengths of both channel types, the screw slots are spaced at 200mm (7.87") centers (five slots on 1m lengths and ten slots on 2m lengths).

Dimensions - Flexible mounting channel

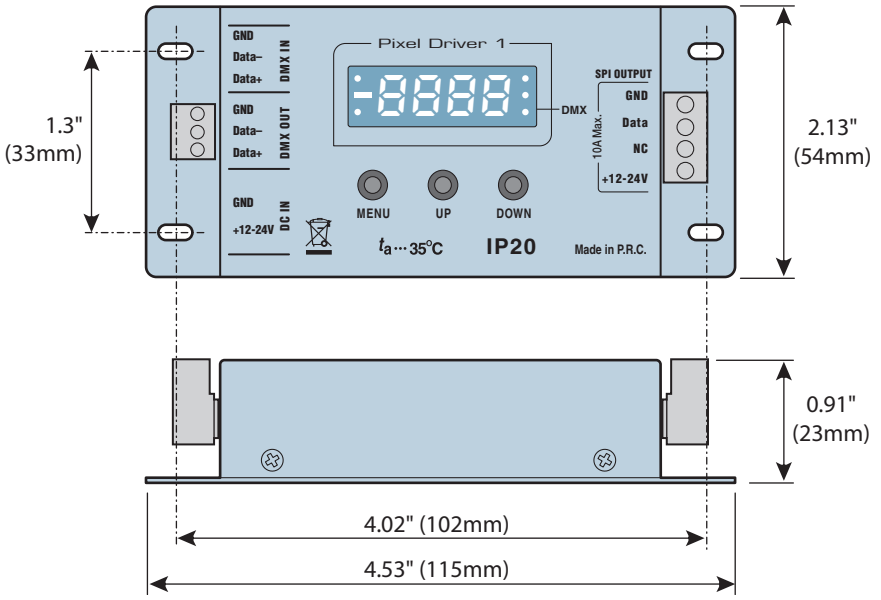
(for use only with horizontal bend models - F2Y)

- 1.6' (0.5m) F2FCH500
- 3.28' (1m) F2FCH1000



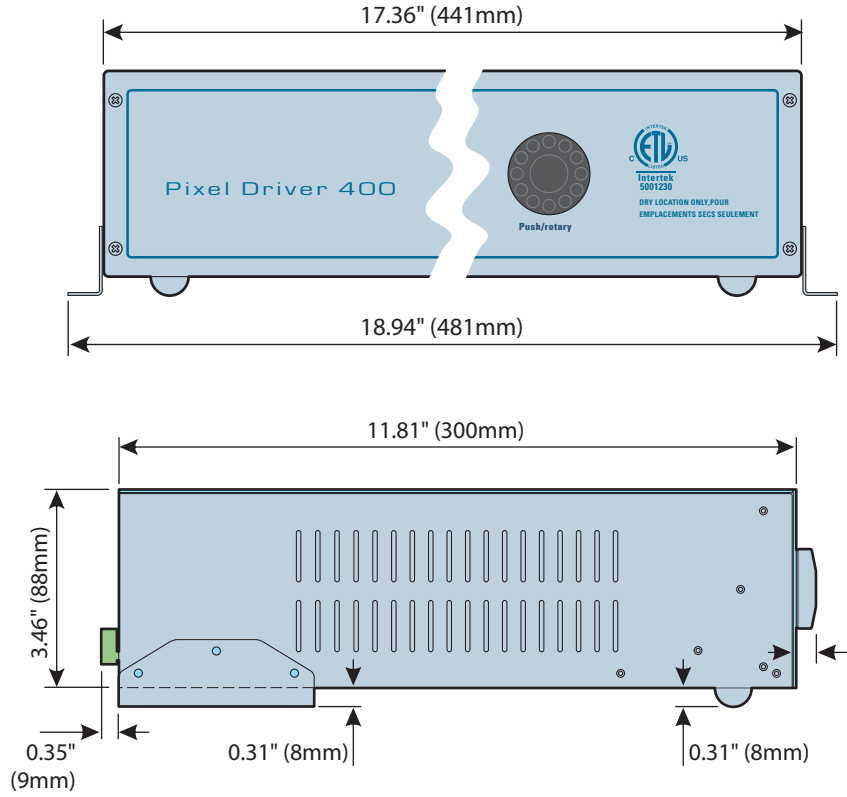
Note: The Ø0.16" (4mm) mounting holes are spaced at 4.57" (116mm) - on every tenth segment.

Dimensions - Pixel Driver 1



Weight: 5.11oz (145g)

Dimensions - Pixel Driver 400



Weight: 12.3 lbs (5.6kg)

Limited product warranty

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

- Fixtures: 5 Years (1,825 days) from the date of purchase.
- Drivers, power supplies and accessories: 5 Years (1,825 days) from the date of purchase.
- Flex Products: 3 Years (1,095 days) from the date of purchase.
- Controllers: 2 Years (730 days) from the date of purchase.

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

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

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

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

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

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

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

www.acclaimlighting.com