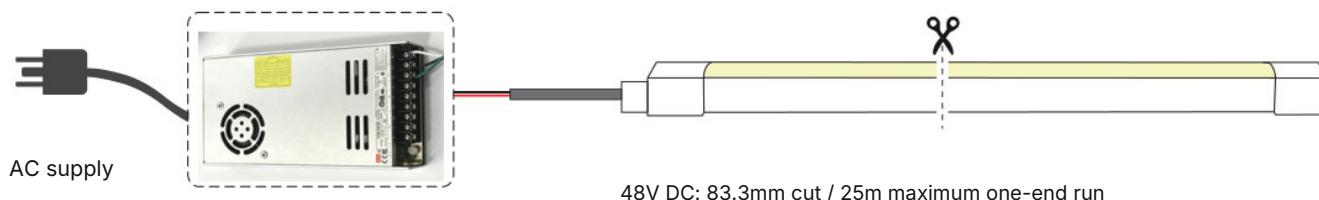


10x10mm Side Bend Neon Flex

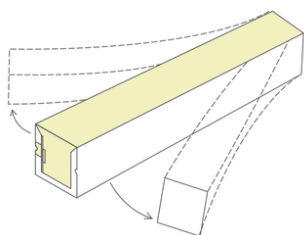
48V DC | 83.3mm cut | 25m single-end feed | White colours

POWER, HORIZONTAL BENDING & CAUTIONS

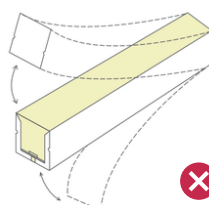


Constant voltage | 11W/m | Calculated 25m load: 275W / 5.73A at 48V

Match the supply, controller and cables to the product voltage and load. Check cable size, voltage drop and the supply manufacturer's loading allowance. Have mains-side wiring done by a suitably qualified person; non-weatherproof equipment needs a dry, protected location.



Horizontal bending only



No vertical bending or twisting

Use broad, smooth curves in the horizontal plane only. Do not twist. Keep the first and last complete 83.3mm cut units straight. Obtain the approved minimum bending diameter before forming; the source gives no numeric limit.

- 01 Isolate mains power before cutting, installing, maintaining or making connections.
- 02 Use matching sealed connections. Body IP67 and a connector rating do not prove the finished assembly rating.
- 03 **WARNING:** Use a matched 48V constant-voltage DC supply. Never connect directly to 220-240V AC mains; incorrect voltage can damage the lights.
- 04 Cut only at printed marks: 83.3mm units. Do not cut between marks.
- 05 Have the supply, controller and cables selected for the actual load by a competent electrical installer.
- 06 Do not twist, kink, crush, pull or force the flex. Never bend in the vertical plane. Support it during handling.
- 07 Operate within -30°C to 50°C. Confirm the complete system suits the installation environment.
- 08 Fully unroll before powering. Never leave the light operating in its packaging coil.
- 09 Keep each one-end run within 25m. Obtain a confirmed design for altered feeds.

Incorrect-power damage: Damage caused by incorrect voltage or direct mains connection is not covered by warranty where ATOM LED is not at fault. ATOM LED Lighting Ltd accepts no liability for loss or damage caused by such connection where it is not at fault. This does not exclude liability for our negligence or breach of statutory duty, or affect your statutory rights.

10x10mm Side Bend Neon Flex

48V DC | 83.3mm cut | 25m single-end feed | White colours

CONNECTION ACCESSORIES

The exact 10x10mm source shows separate IP67 and IP65 connector families. Select the cable-entry direction and matching sealing kit for the application. These illustrations are not an included-parts list and do not establish the protection of a completed joint.

IP67 silicone snap connector options



Front

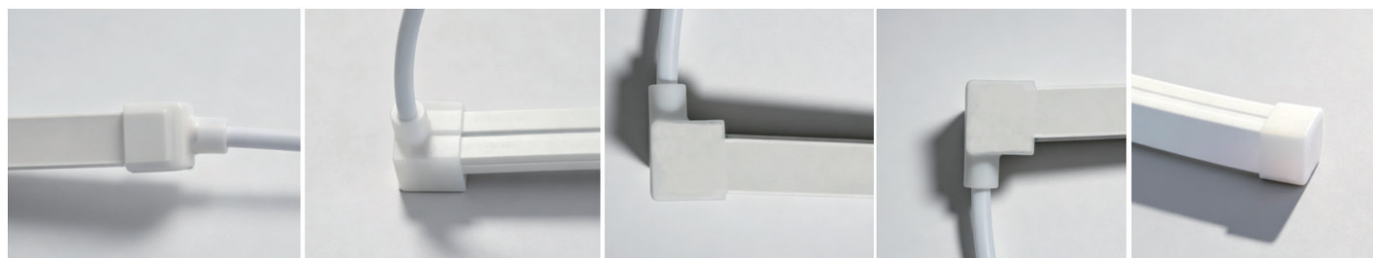
Bottom

Side left

Side right

End cap

IP65 silicone snap connector options



Front

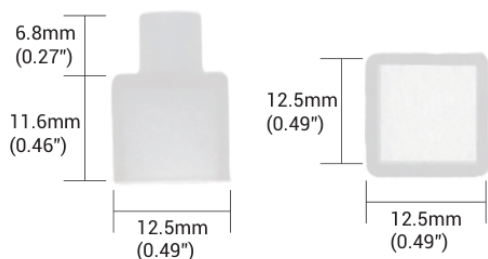
Bottom

Side left

Side right

End cap

FITTING & LEAD REFERENCE



Silicone power wire

The supplier lead example is 200mm long with a 4mm exterior callout. These are accessory-reference dimensions, not confirmation of ordered lead length, conductor cross-section or current capacity.

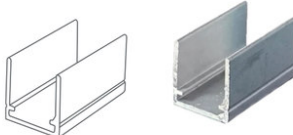
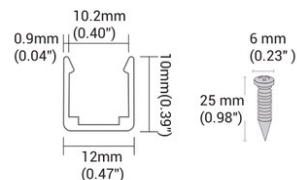
Specify the matching connector, lead, sealant and required finished-system protection. The neon body remains IP67; a fitting does not upgrade it or automatically certify a field joint.

10x10mm Side Bend Neon Flex

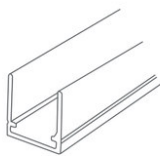
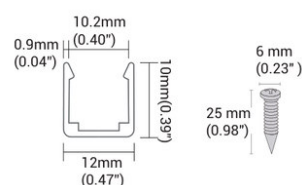
48V DC | 83.3mm cut | 25m single-end feed | White colours

CHANNELS, TOOLS & MOUNTING

2cm Aluminum Profile



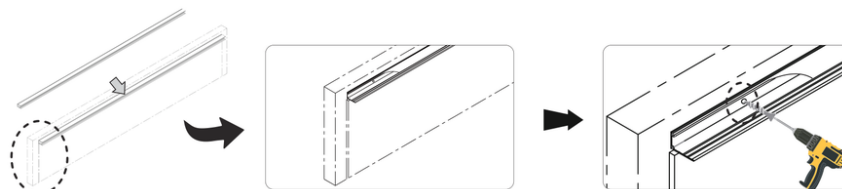
1m Aluminum Channel



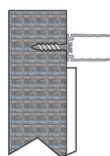
Supplier mounting reference: 20mm clip / 1m aluminium channel; 12mm outside width, 10.2mm opening, 10mm height and 0.9mm wall. These are accessory dimensions. Confirm the ordered profile and connector fit before fixing.



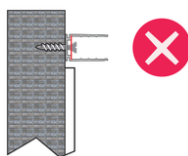
Fix the channel first. Keep every fixing straight and its head flush or recessed. Select fixings for the substrate; remove sharp edges, burrs and drilling debris.



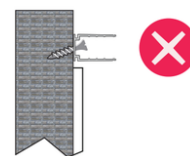
Secure the channel, then insert by hand progressively from one end. Screws and tools must not contact or puncture the light. Check head clearance from every direction.



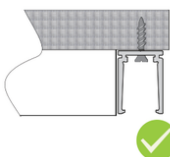
Correct: flush / recessed.



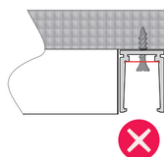
Incorrect: proud screw head.



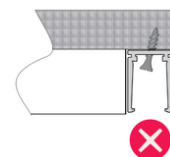
Incorrect: angled screw.



Correct: head clears neon.



Incorrect: head presses neon.



Incorrect: raised screw edge.

Do not force the neon over a fixing or into an unsuitable channel. Protect the silicone surface and avoid trapping extra length. No universal fixing spacing is specified.

10x10mm Side Bend Neon Flex

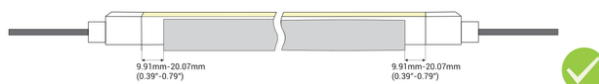
48V DC | 83.3mm cut | 25m single-end feed | White colours

CONNECTOR CLEARANCES & CABLE CARE

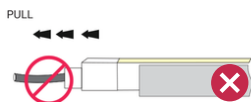
Supplier reference for the illustrated mounting pieces only: the 9.91-20.07mm gap is not a universal setback. Confirm clearances for the exact connector system before installation.



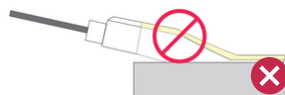
Illustrated feed-end mounting clearance: 9.91-20.07mm (0.39-0.79in).



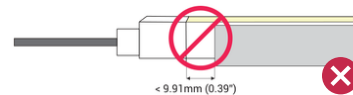
Where mounting pieces are used at both ends, keep the illustrated clearance at each end.



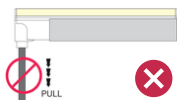
Do not pull the cable or load its entry.



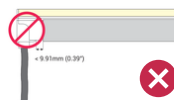
Do not overlap mounting pieces.



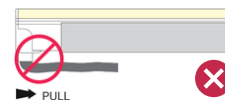
Shown arrangement: not below 9.91mm.



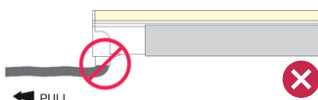
Bottom entry: no downward cable load.



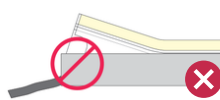
Shown bottom-entry gap: at least 9.91mm.



Do not pull or sharply fold the cable.



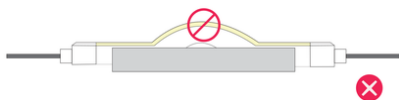
Support the cable in either exit direction.



Never force an end fitting into a channel.



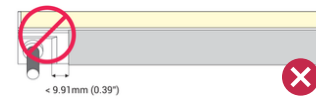
Do not deform the end of the neon.



Insert from one end; do not trap a hump.



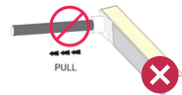
Moulded feed: do not fold the cable back.



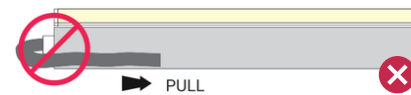
Shown moulded-feed gap: at least 9.91mm.



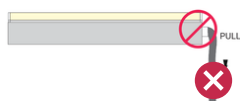
Do not force or bend the moulded end.



No axial pull on the moulded connector.



No sideways pull or sharp cable fold.



Support a downward cable independently.



Avoid a trapped middle hump.

Support the cable independently and insert progressively from one end. No fitting or seal should carry cable weight, tension or sideways load.

10x10mm Side Bend Neon Flex

48V DC | 83.3mm cut | 25m single-end feed | White colours

INSTALLATION STEPS 1-3: PLAN, CUT & TIN

Isolate power. Use the matching termination kit and its instructions. This sequence describes a soldered connection.

Supplier process illustrations - not product pinout drawings. Follow the actual two-wire + / - pads and matching components; the examples do not establish included parts.

01 Plan the route and length

Measure the route. Follow the actual 83.3mm cut marks and the 25m one-end run limit.



Measure before cutting.

02 Cut squarely at the mark

Cut only at the scissors mark. Keep the PCB flat; do not crush, tear or leave an uneven exposed end.



Cut at the marked position.



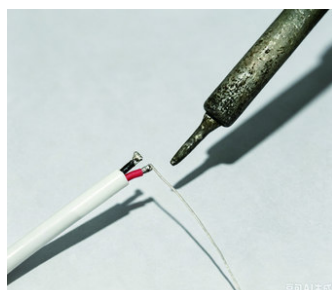
Incorrect: uneven cut. Keep the PCB flat.

03 Tin both pads and conductors

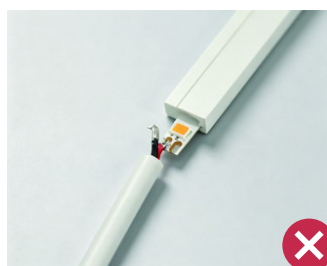
Tin the solder pads and both power conductors before joining. Untinned joints can come loose. Avoid loose strands, solder burrs and bridges: they can short-circuit and damage the neon.



Tin the solder pads.



Tin both conductors.



Incorrect: poor joint. Inspect joint strength.



Incorrect: solder burr. Avoid shorts and bridges.

Lay out the feed fitting, tail cap, cable and compatible sealing compound before assembly. Restore full sealing before energising.

10x10mm Side Bend Neon Flex

48V DC | 83.3mm cut | 25m single-end feed | White colours

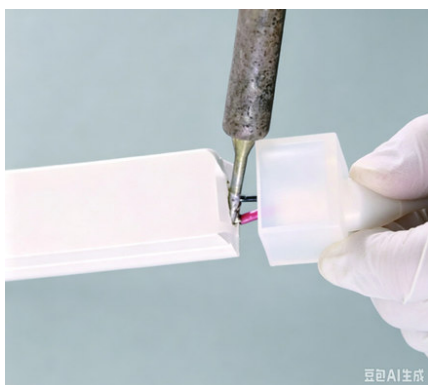
INSTALLATION STEPS 4-7: CONNECT, SEAL & CURE

Use the manufacturer-specified sealing compound and matching termination-kit instructions. Inspect each connection before sealing.

Supplier process illustrations - follow the actual two-wire connections and fitting supplied.

04 Solder and check polarity

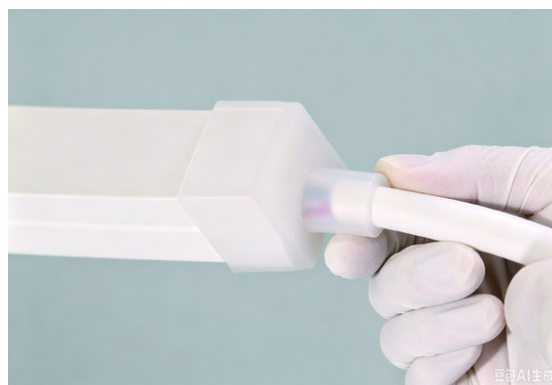
Solder each wire to its matching + / - pad. Inspect both joints and check they are secure. The illustration shows the soldering action only.



Match the actual two-wire + / - pads.

05 Seal the feed and seat fitting

Cover the exposed strip and PCB end fully with the specified sealant. Push the correct fitting fully home to make a tight joint.



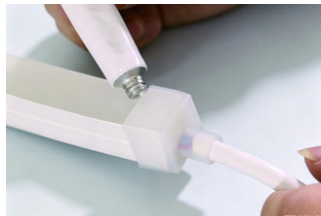
Seal the exposed end and seat the fitting fully.

06 Seal cable entry and perimeter

Seal around the cable entry and fitting perimeter as specified. Add strain relief: the seal must not carry a pulling load or cable weight.



Seal around the entry.

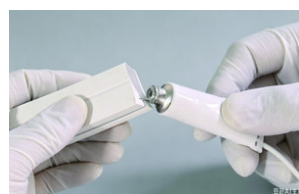


Seal the fitting perimeter.

Support the cable so no pulling or sideways load reaches the sealed fitting.

07 Seal the tail and allow cure

Seal the rear end, fit the tail cap and seal its perimeter. Allow the specified full cure before powering or exposing to moisture.



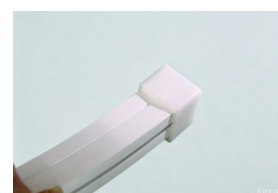
Seal the rear end.



Fit the tail cap.



Seal the perimeter.

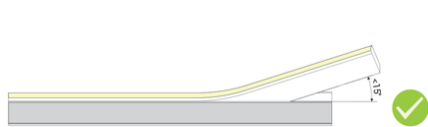


Check the finished tail.

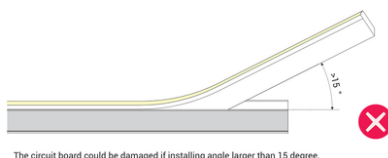
10x10mm Side Bend Neon Flex

48V DC | 83.3mm cut | 25m single-end feed | White colours

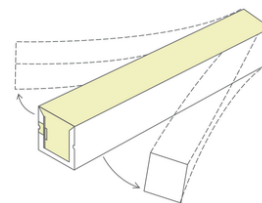
BENDING, COMMISSIONING & TROUBLESHOOTING



Correct: insert by hand below 15 degrees.



Incorrect: steep channel insertion.



Use broad horizontal bends only.

The 15-degree figure is a channel-insertion angle, not a bend radius. Use broad horizontal curves only; do not twist or bend in the vertical plane. Keep the first and last complete 83.3mm units straight. Obtain the approved numeric minimum bending diameter before forming; it is not stated in the source.

Before switching on

Confirm the matched 48V DC supply, + / - polarity, load, 25m one-end maximum and 83.3mm cut units. Check curves, straight ends, flush fixings, clearances, supported cables, seals and completed cure. Fully unroll; operate within -30°C to 50°C.

TROUBLESHOOTING

No light	Check incoming power and the matched 48V DC output. Check polarity, supply/controller/dimmer joints and front-connector assembly.
Dim far end	Check voltage under load, cable voltage drop, length and load. Check dimmer setting; shorten the run or obtain a confirmed feed redesign.
Too bright	Check output does not exceed the product voltage and is stable. Isolate power before correction.
First section off	Check uneven cuts, connector insertion damage, other PCB damage and water ingress. Replace the damaged marked section and reseal.
Flickering	Check supply capacity/stability, front contact and controller compatibility. Do not improvise additional feeds.

CARE & WARRANTY

Warranty: 4 Years. See page 1 for the incorrect-power damage exclusion. Isolate power before maintenance. Replace damaged or poorly sealed sections. Confirm the complete system suits the environment; these illustrations do not establish pool, salt-water or continuous-submersion suitability.