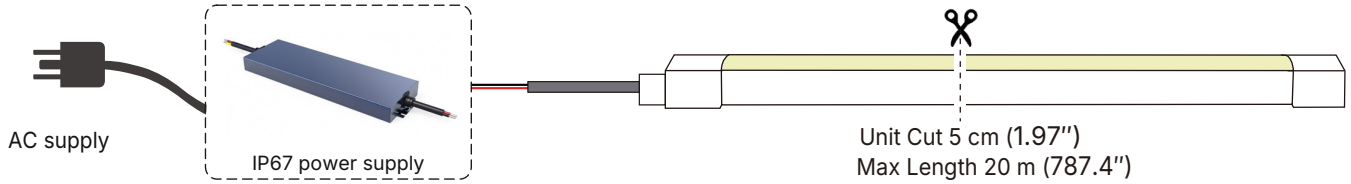
15 x 15mm (W x D) Vertical Bend Neon Flex

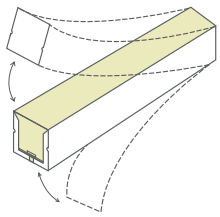
24V DC | 50mm (5cm) cut | 20m single-end feed | All colours

POWER, BENDING & ESSENTIAL CAUTIONS

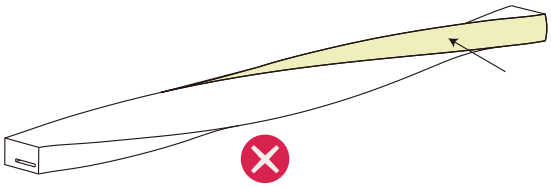


24V DC constant voltage | 50mm cut | 20m maximum single-end feed

Select the illustrated IP67 supply for 24V DC and the actual load. All colours are rated 9W/m: a 20m run is 180W before driver allowance. Use a compatible constant-voltage supply, controller and cables sized for the installation.



Vertical bend only



Do not twist or bend sideways

15x15mm neon with a fully silicone-injected interior. Keep the first and last units straight next to connectors. Confirm the minimum bend diameter and straight-end length; neither is numerically specified here.

01 Isolate mains power before cutting, installing, maintaining or making connections.

02 Use compatible sealed connectors. Seal every joint as instructed; a component IP rating alone does not establish the finished assembly rating.

03 Confirm 24V DC and correct + / - polarity before connecting the front cable.

04 Cut only at marked 50mm (5cm) scissors positions. Incorrect cutting or connections can damage the neon.

05 Use a qualified constant-voltage supply and cables rated for the actual load. Do not exceed the supply output.

06 Handle gently. Do not twist, kink, crush, pull or force the light or connectors.

07 Operate within the -30°C to 50°C ambient-temperature range.

08 Fully unroll the neon before powering it; never leave it operating in its packaging coil.

09 Plan voltage drop and cable length. Runs beyond 20m or multiple feeds require a confirmed electrical design.

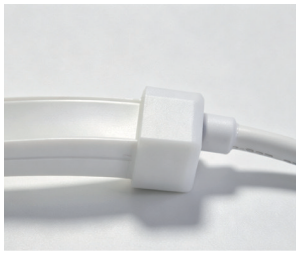
15 x 15mm (W x D) Vertical Bend Neon Flex

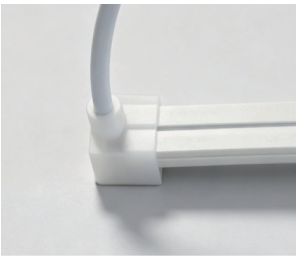
24V DC | 50mm (5cm) cut | 20m single-end feed | All colours

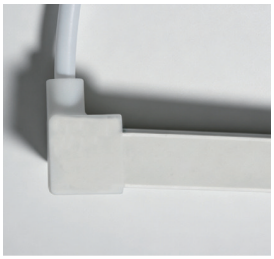
CONNECTION ACCESSORIES

Two silicone connector systems are illustrated. Confirm entry direction, compatibility and protection rating for the actual installation. Connector-option ratings remain separate from the neon body rating.

IP67 connector options


Front


Bottom

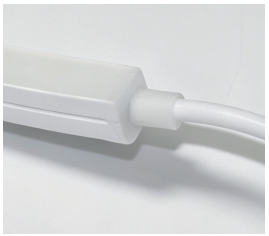

Side left

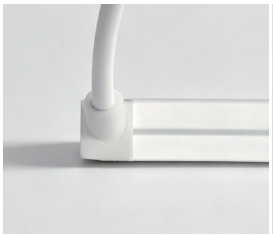
Side right

End cap

IP68 connector options

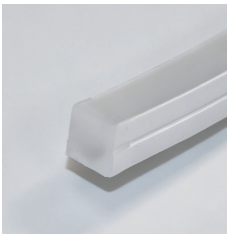
IP68 connector options are available for custom lengths. Please discuss your requirements with our sales team. These options normally take 2-3 weeks to complete.


Front

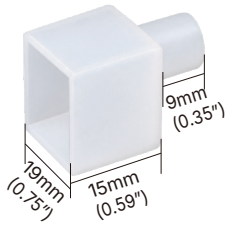

Bottom

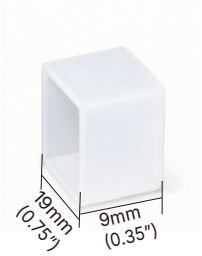
Side left

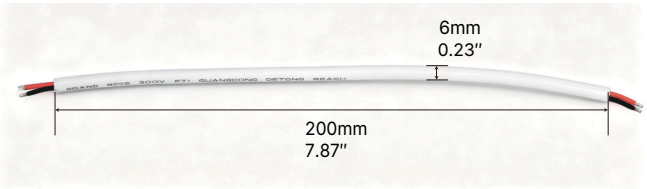
Side right


End cap

FITTING & LEAD REFERENCE







Silicone power wire

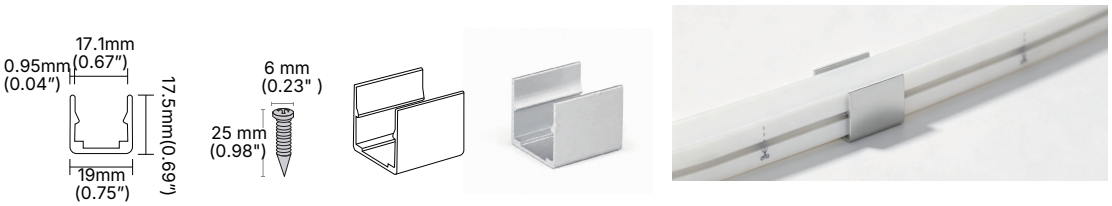
Supplier dimensions are shown in the drawings. The example lead is 200mm long with a 6mm callout; this does not specify conductor size or current capacity.

IP67 and IP68 accessories are separate options, not included-parts lists or proof of the finished assembly rating. Confirm the connector, lead and sealing method when ordering.

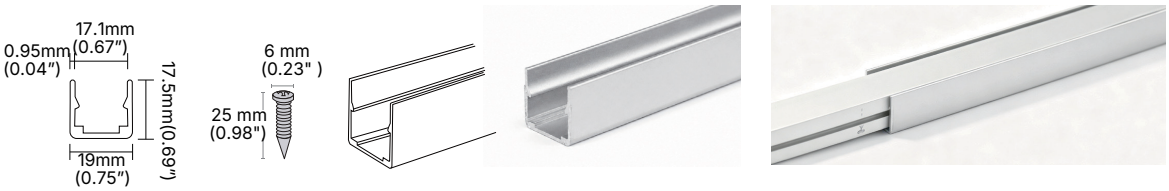
15 x 15mm (W x D) Vertical Bend Neon Flex

24V DC | 50mm (5cm) cut | 20m single-end feed | All colours

CHANNELS, TOOLS & MOUNTING

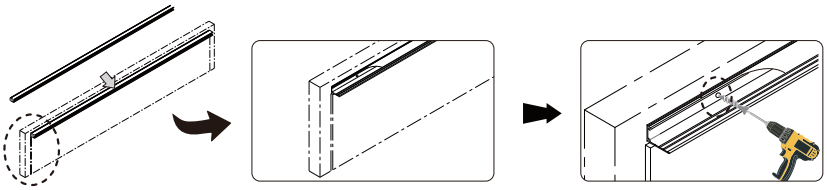


1 m Aluminum Channel

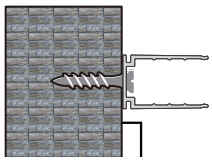


20mm clip / 1m aluminium channel: 19mm outside width, 17.1mm clear width, 17.5mm height and 0.95mm wall. Confirm fit and select fixings for the substrate.

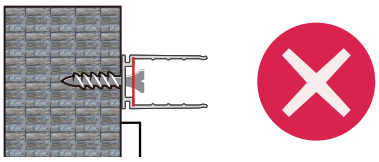
Manual or electric screwdriver. Fix the channel before inserting the neon. Keep every fixing straight and its head flush or recessed; clear sharp edges and drilling debris.



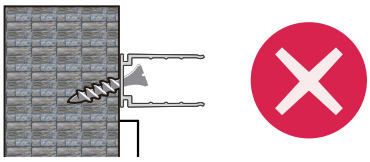
Secure the channel, then insert by hand progressively from one end. Screws and tools must not touch or puncture the light. Check head clearance from every direction.



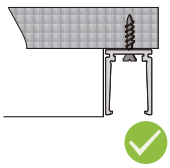
Correct: flush / recessed



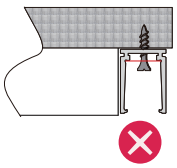
Incorrect: proud head



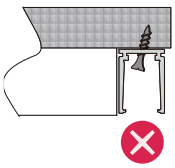
Incorrect: angled screw



Correct: head clears neon



Incorrect: head presses neon



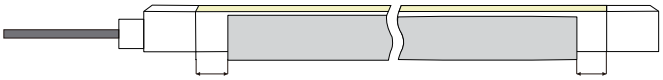
Incorrect: raised screw edge

Do not force the profile over a fixing or into an unsuitable channel. Remove protrusions and sharp edges before the light is fitted.

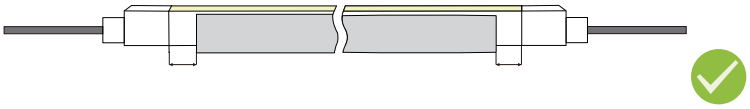
15 x 15mm (W x D) Vertical Bend Neon Flex

24V DC | 50mm (5cm) cut | 20m single-end feed | All colours

CONNECTOR CLEARANCES & CABLE CARE

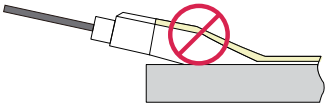


Single feed-end mount: keep a 9.91–20.07mm (0.39–0.79in) gap.

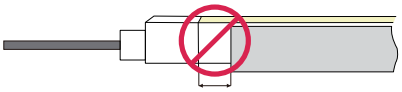


Both ends: keep the same 9.91–20.07mm (0.39–0.79in) gap at each connector mount.

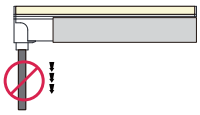
Do not pull axially or sharply fold the cable.



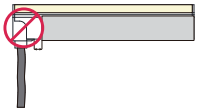
Do not overlap mounting pieces.



Do not leave a gap below 9.91mm.

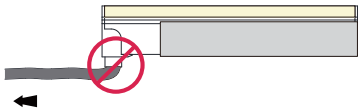


Bottom entry: no downward cable load.

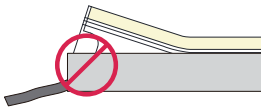


Bottom entry: gap must be at least 9.91mm.

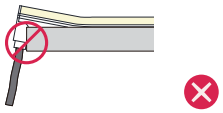
Do not pull or sharply fold the cable.



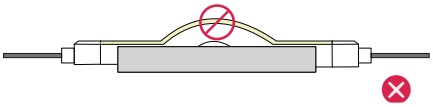
Support the cable in either exit direction.



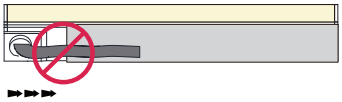
Never force an end fitting into the channel.



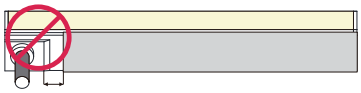
Do not deform the end of the neon.



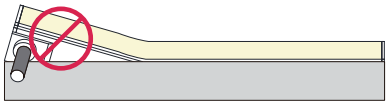
Insert from one end; do not trap a hump.



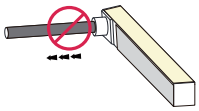
Moulded feed: do not fold cable back.



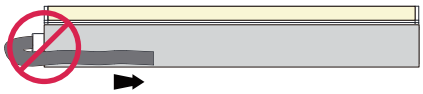
Moulded feed: gap at least 9.91mm.



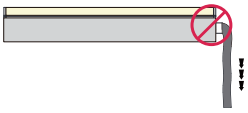
Do not force or bend the moulded end.



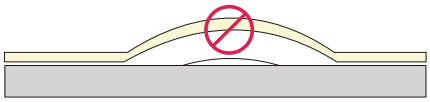
No axial pull on the moulded connector.



No sideways pull or sharp cable fold.



Support a downward cable independently.



Moulded feed: avoid a trapped middle hump.

Clasp/sleeve and injection-moulded fittings must remain unstressed. Use cable strain relief and insert progressively from one end; no connector or seal should carry cable weight or pulling force.

15 x 15mm (W x D) Vertical Bend Neon Flex

24V DC | 50mm (5cm) cut | 20m single-end feed | All colours

INSTALLATION STEPS 1-3: PLAN, CUT & TIN

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

Supplier process examples are not product pinout drawings: follow the actual two-wire + / - pads. Use matching components; the examples do not establish which parts are included.

01 Plan the route and length

Determine the installation location, route and length. Measure and mark 50mm (5cm) cut intervals.

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.

Measure before cutting.

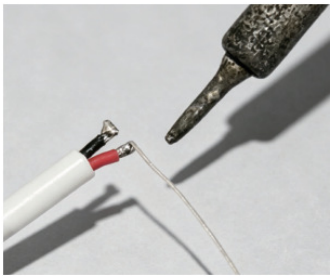
Cut at the marked position.

Incorrect: uneven cut. Keep the PCB flat.

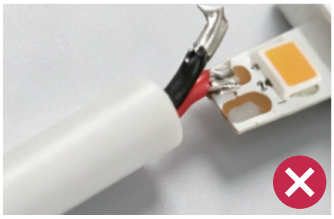
03 Tin both pads and conductors

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.

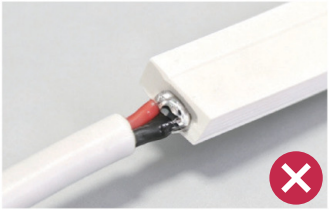
Tin the solder pads.



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.

15 x 15mm (W x D) Vertical Bend Neon Flex

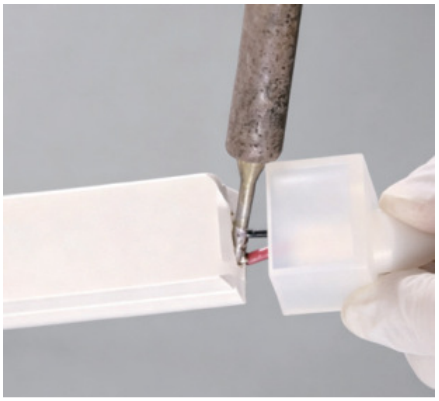
24V DC | 50mm (5cm) cut | 20m single-end feed | All colours

INSTALLATION STEPS 4-7: CONNECT, SEAL & CURE

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

04 Solder and check polarity

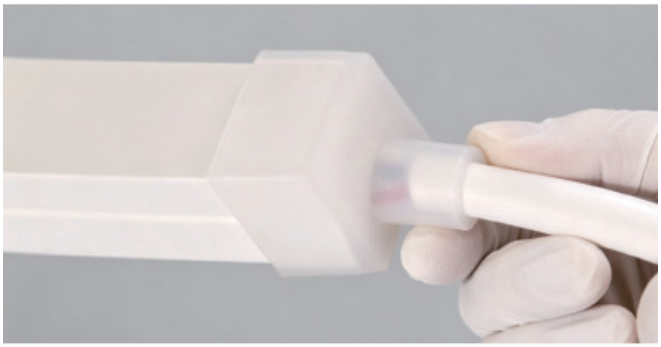
Solder each wire to its matching + / - pad. Inspect both joints and check that they are secure. The example shows the soldering action only.



Match the actual two-wire + / - connections.

05 Seal the feed and seat fitting

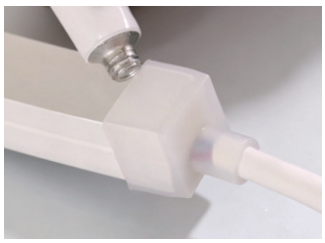
Cover the exposed strip and PCB end fully with the specified sealant, then push the correct fitting fully home for a tight joint.



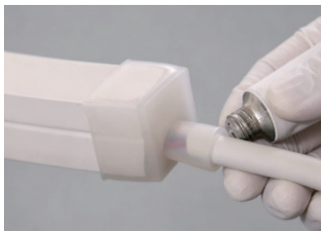
Seat the fitting fully after sealing the exposed end.

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.

Use cable support so no pull or sideways load reaches the sealed fitting.

07 Seal the tail and allow cure

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

Seal the rear end.

Fit the tail cap.

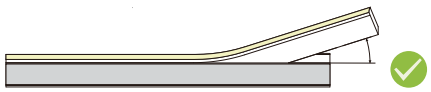
Seal the perimeter.

Check the finished tail.

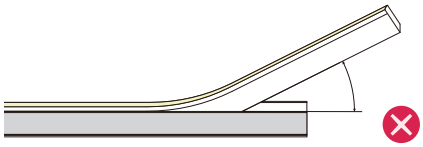
15 x 15mm (W x D) Vertical Bend Neon Flex

24V DC | 50mm (5cm) cut | 20m single-end feed | All colours

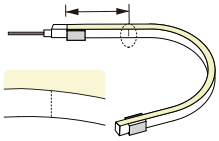
BENDING, COMMISSIONING & TROUBLESHOOTING



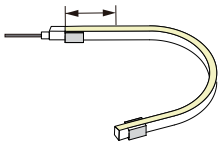
Correct: insert by hand below 15°.



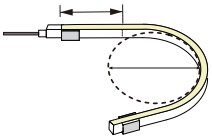
Incorrect: insertion above 15°.



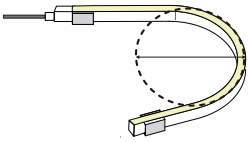
Keep the first unit straight.



Do not bend the first or last units.



Use the defined minimum bend diameter or larger.



Never bend more tightly; PCB/LEDs can be damaged.

Confirm the minimum bend diameter and straight-end length. Do not turn one unit into an assumed millimetre setback. Protect the connector seal and bend only in the vertical plane.

Before switching on

Confirm 24V DC, + / - polarity, supply capacity, 20m run limit and 50mm cuts. Check straight end units, vertical curves, flush screws, connector gaps, supported cables, sealed ends and completed cure. Operate within -30°C to 50°C and fully unroll before testing.

TROUBLESHOOTING

No light	Check the supply is plugged in, switched on and delivering 24V DC. Check polarity, every supply-to-light/controller/dimmer joint and correct front-connector assembly.
Dim far end	Check for output below 24V DC, voltage drop, cable length and load; test the dimmer setting. Shorten the run or obtain a confirmed feed redesign.
Too bright	Check output is not above 24V DC and input is stable. Isolate power before correction.
First section off	Check wrong or uneven cuts, LED damage from connector insertion, other PCB damage or water ingress. Replace the damaged marked section, reseal and insert by hand.
Flickering	Check supply capacity/stability, front contact and dimmer/controller compatibility. Confirm any additional-feed design.

Typical uses: architecture, landscape, stage/theatre, holidays/events, cove/edge lighting, retail, restaurants and bars. Confirm the finished system suits its environment; component ratings do not establish pool, salt-water or continuous-submersion suitability.

Isolate power before maintenance. Replace damaged or poorly sealed sections. Check accessory compatibility and the finished system environment; obtain an electrical design for extended or multiple feeds.