

Flex Exterior Line Channel

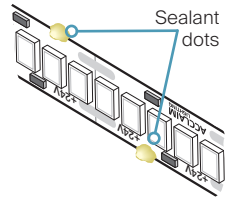
Installation

Mounting

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

When mounting on the sides or undersides of surfaces

We recommend that you add small dots of silicone sealant along both sides of the Flex tape (to overlap the tape edge and mounting surface) using Dow Corning® 799, 1199 or equivalent. This will provide additional stability and help to prevent any separation of the tape from the mounting surface over time. The silicone dots are best applied once the tape is fixed in place; then the whole installation should not be disturbed until it the sealant has fully cured.



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

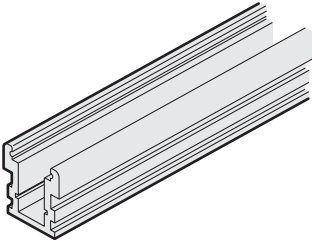
Abrading a surface, followed by cleaning with IPA/water*, can remove heavy dirt or oxidation (e.g. galvanized steel) and can increase surface area to improve adhesion. Abrasion often also helps adhesion to paints and plastics. Very small scratches in the surface, generated with circular motion rather 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.*

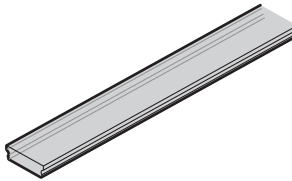
Flex exterior line channel (FLK EXL)

This sturdy anodized aluminum channel allows the Flex One tape to be recessed into exterior surfaces and is rated for walk-over installations. Thanks to the increased thickness of its profile, the channel can withstand pressures of up to 2.9psi (20kN/m²). To achieve effective IP67 water ingress protection it is necessary to use Dow Corning® 799, 1199 (or equivalent) silicone sealant to form complete seals between the channel and its UV coated lens - plus any cable access holes.

Options



Flex Exterior line channel
(3.28' / 1m)
[FLK EXL]



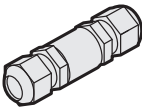
Exterior line opal lens
(3.28' / 1m)
[FLK EXL OL]



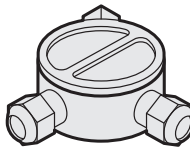
End cap
[FLK EXL EC]



End cap with hole
[FLK EXL ECH]



Waterproof coupler
[FLK WPC]



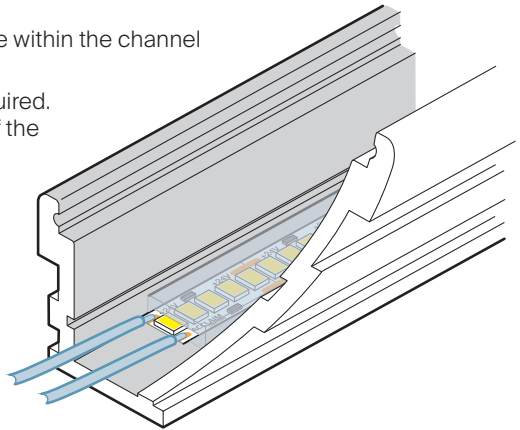
Waterproof splitter
[FLK WPS]

To fit the Flex tape

Note: The molded feed cap fitted on each spool of external Flex tape is too large to fit within the channel. In order to achieve a fully sealed installation within the channel, it will be necessary to remove the molded connection and solder new feed wires directly to the nearest cut line.

- 1 If necessary, cut the channel to the required length. Ensure that any resulting burrs are removed.
- 2 Ensure the tape mounting surface within the channel is completely dry and clean.
- 3 Determine the length of tape required. Mark the positions at each end of the channel where the tape will be placed.

Note: Flex tape can be cut only at certain points, which may slightly constrain the precise lengths of tape that can be achieved. Therefore it may be beneficial to center the tape within the channel to achieve an even distribution.



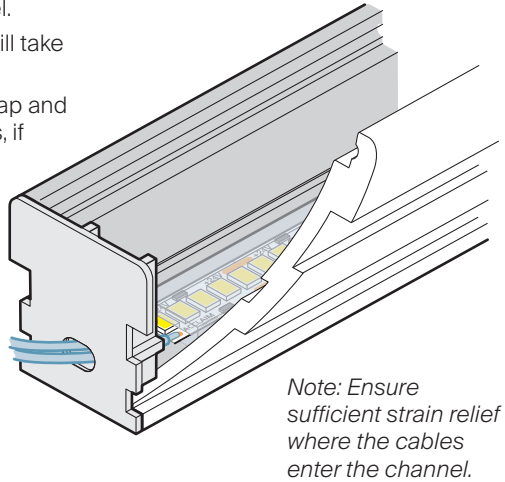
- 4 Cut the tape to the nearest marked cutpoint.
- 5 Carefully push the tape into the channel, starting at the marked position. The tape's size will cause an interference fit within the channel, keeping it in place without adhesive.

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

- 6 Use Dow Corning® 799, 1199 (or equivalent) silicone sealant to fully encapsulate the feed connections to protect against any moisture ingress.

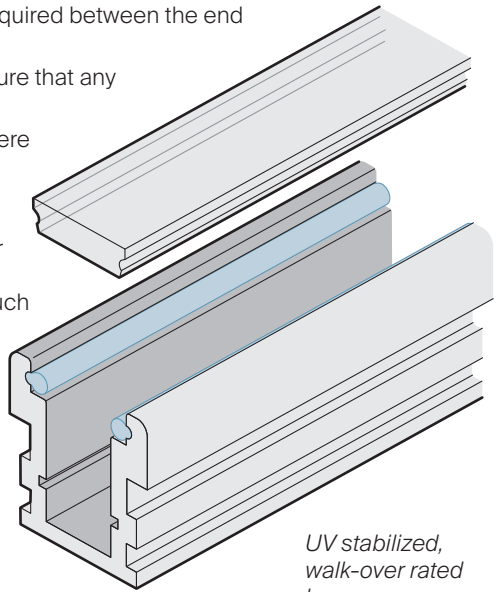
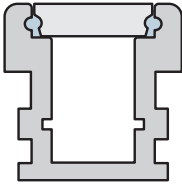
To recess in ground

- 1 Fit the Flex One tape to the channel.
- 2 At the end where the connection will take place, fit an *End cap with hole*.
- 3 Feed the cables through the end cap and carefully solder to the contact pads, if necessary.
- 4 At the other end of the channel, fit a standard *End cap*.
- 5 To ensure long term protection against water ingress, coat all internal end cap seams with a bead of sealant (Dow Corning® 799, 1199 or equivalent). Pay particular attention to the cable entry point.
- 6 Fit and seal the required lens (see below).
- 7 Place the sealed tape/channel assembly into the prepared ground recess.



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 Along each side of the channel (where the lens will sit) carefully run a thin bead of sealant (Dow Corning® 799, 1199 or equivalent). The bead should be large enough in diameter to ensure a good seal between the channel and the lens, but not so much that excess sealant runs into the channel and contaminates the lens inner face.
- 4 Determine the correct orientation of the lens - it has a wider outer face and a slightly narrower inner face.



*UV stabilized,
walk-over rated
lens.*

- 5 Carefully lower the lens onto the beads of sealant and ensure that it fully seats in place. Wipe away any excess sealant.
- 6 Apply further sealant between the lens and the end caps.

Dimensions

