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20099873

#smartconnection

NOTICE / INSTRUCTIONS

L.I.N.X WTC 2

Straight and MidSpan Splice Closures

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Table of contents

A. Preparing the fibre optic cable

1 Measure and mark the length of outer cable jacket to be removed. Using the appropriate tools, re- move the jacket.

2 If a shield is wrapped around the buffer tubes, leave approximately 1/2" (1cm) of shield intact against the ring cut of the cable. Then carefully remove the shield exposing the support binders and the buffer tubes.

3 Unwrap the support binders from the buffer tubes and remove by cutting with snips.

4 Unwind the buffer tubes from the strength member. Make sure that the strength member is completely exposed.

5 Cut away the white filler buffer tubes at the ring cut or at the remaining shield.

B. Place Closure Port Locking Components Over the Cable in the Following Sequence

1 Place the cable guide (piece with multi-holes in one end) within the nut cap so the multi-holes are facing the taper, then squeeze the two pieces together until they lock. The inner piece will now float within the nut cap without falling out. See figure 1.

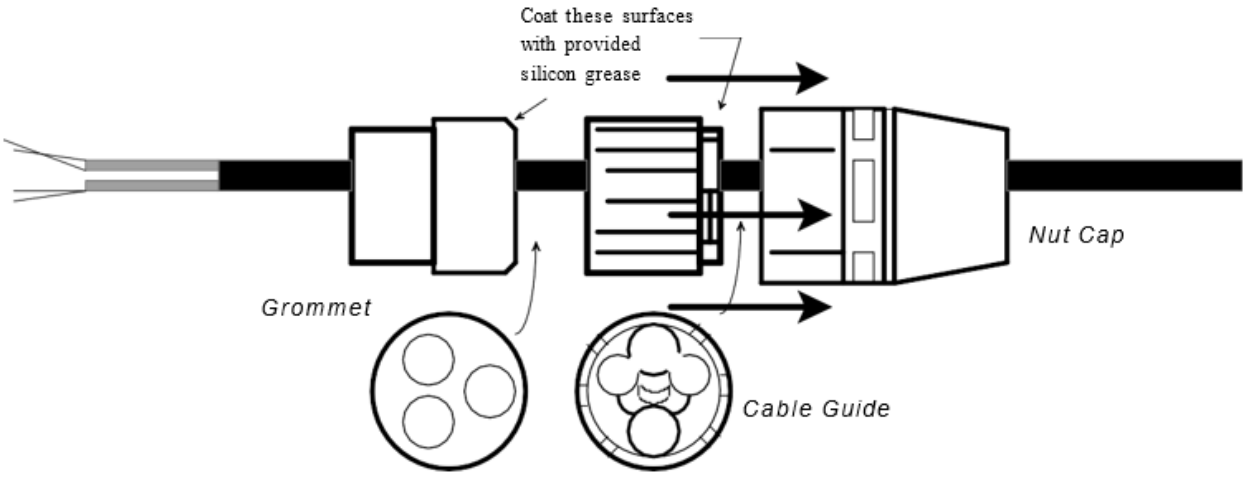


Figure 1

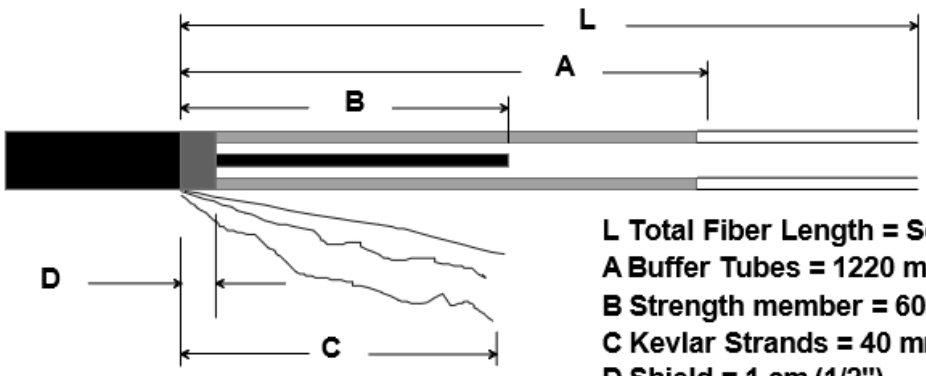
2 Position this assembly over the cable with taper facing away from the closure port as shown in Figure 1.

3 Next, install the appropriate size cable grommet over the cable with the flat side facing the closure port. See Figure 1.

Note : Pre-determine that the grommet s' slits will fit over the port keys of the selected port to avoid disassembly of system when finalizing installation.

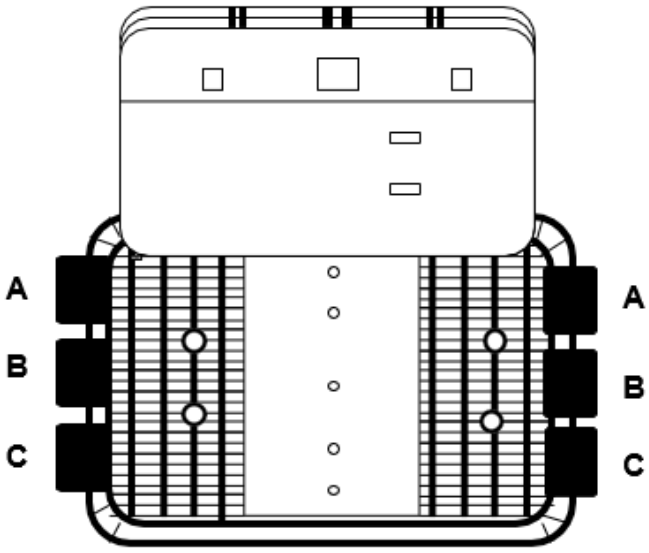
Note : If two cables are entering one port, be sure to use the outer holes for mounting the cable hardware to the closure base. If a cable diameter larger than 1/2-inch is being installed, break the centre piece of the cable guide with a screwdriver to accommodate the cable.

4. Carefully work the buffers through the selected closure port leaving enough slack in the cable for continuing the installation. Once through the closure port, follow Figure 2 to expose the appropriate fiber length, then follow Section C - Preparing the grounding and axial load retention hardware bracket below.
5. Follow figure 2 for proper cut lengths of



L Total Fiber Length = See chart below
A Buffer Tubes = 1220 mm (4')
B Strength member = 60 mm (2-1/4")
C Kevlar Strands = 40 mm (1-3/4")
D Shield = 1 cm (1/2")

Figure 2



	L
A	7' (2200 mm)
B	7' (2200 mm)
C	6' (1800 mm)

Buffer tube lengths depending on which entry port is being used.

NOTE: Use your locally approved buffer tube lengths. Total lengths should not exceed the limit proposed in the above chart.

C. Preparing the Grounding and Axial Load Retention Hardware Bracket

Note : Each cable to be installed in the closure must be prepared with the grounding and axial load retention hardware bracket.

1. Remove hardware contents from the packet and place on flat surface. Note: Some items are very small, and care should be taken not to misplace or lose them.
2. The largest piece of the kit contents is the bracket that will house and ground the strength member, shield and the buffer tubes. Locate the long screw and small blue washer.

Place the screw through the hole on the larger end of the bracket. Slide the blue washer up over the threads of the screw.

3. Place the bracket so the thicker section, with the screw and blue washer, is facing away from the cable ring cut. The narrow end should fit under the cable jacket or shield
4. While positioning the bracket, insert the strength member into the hole of it's larger side. Install the metal tab (with hole at one end) on top of the strength member from the opposite side of the ring cut and secure with the small threaded hex-screw on top of the bracket. See steps in Figure 3.
5. Place the buffer tubes in the channels along the sides of the strength member. See Figure 3.

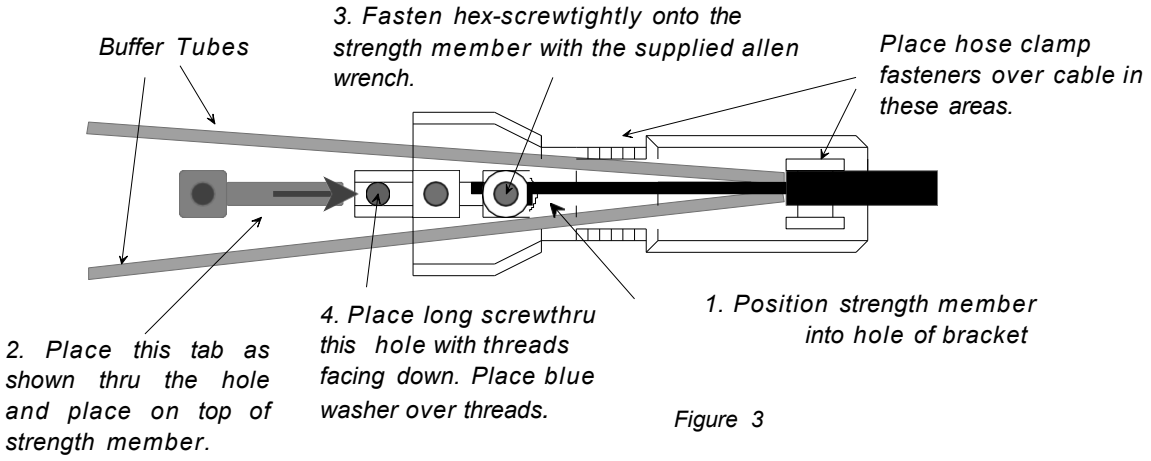
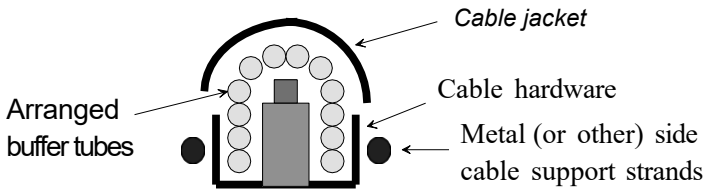


Figure 3

6. Place the top of the bracket over the buffer tubes and strength member and tightly secure with small self-threading screw.

NOTE : If all of the buffer tubes DO NOT fit into the hardware channels, simply cut a piece of the removed outer cable jacket approximately 1/2" wide in length and in half, then arrange the buffer tubes in the hardware as shown in illustration below. Install the supplied hose clamp over the arrangement and tighten. (Discard the metal hardware top). There is also a larger clamp available. Refer to the 8-page data sheet.



7. If the cable has metal (or other) side support strands within the cable, place them to the outside of the bracket, then place the hose clamps over the assembly and tighten completely for appropriate strain re- lief. After trimming the metal strands, bend the ends towards the hardware using needle nose pliers to pre- vent injury.
8. If the cable has loose kevlar strands, place the strands parallel to the buffer tubes on the outside of the bracket and over the hoop grooves and secure with a hose clamp.
9. Worm' the next (appropriate) hose clamp through the slits of the bracket at the cable ring cut end (or over the cable shield) and secure in place.

D. Complete the Buffer/Fiber Preparation and Mount the Grounding Bracket to the Base Plate

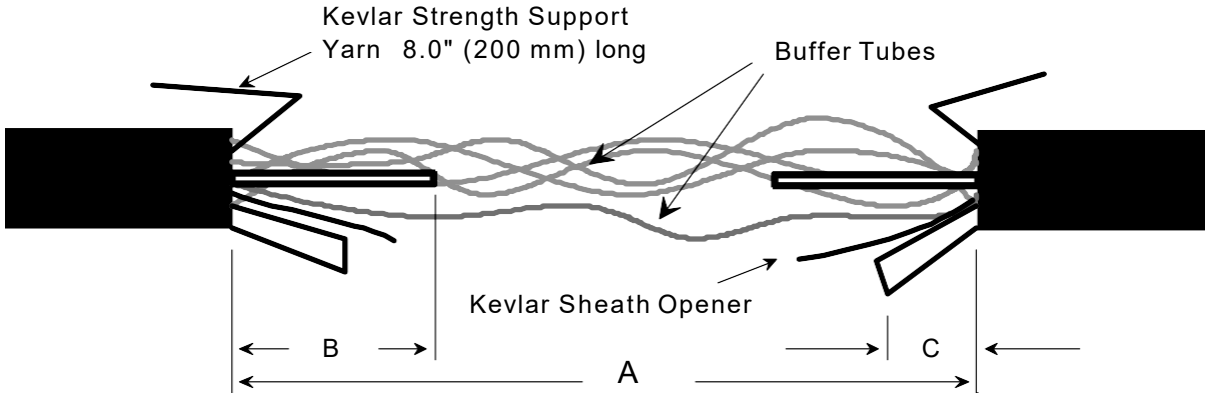
1. Following figure 2, remove the proper amount of buffer tube from the fibers. Clean the exposed fi- bers using your company approved methods.
2. Position the bracket over one of the three threaded holes in the grounding plate and screw-down the screw with the blue washer.

Note: If two cables are entering the same port then separate the mounting of the brackets to the outer holes. If three cables require mounting, position the center cable in the center hole with a stand-off kit to raise the bracket above the other two cables.

3. Route the buffers not used in the buffer storage bin at the closure base around the secured ground- ing brackets.
4. Route the buffer with exposed fiber to be spliced to the fiber tray by positioning the buffer to the side of the tray that will least resist bending and so as not to interfere with the opening and closing of the tray.
5. Gently pinch the buffer tube with pliers, approximately 3/4" (20 mm) from the buffer tube end, and gentley push the pinched section into the metal, ribbed, buffer lock comb. Repeat with all buffers tubes with exposed fibers to be spliced. Tie wraps may be used in place of the combs by routing the tie wraps diago- nally over the buffer tube and through the opening at the comb snaps. Tighten tie wrap appropriately.
6. Remove the lock top from the tray and position over the buffer lock to keep the buffers from springing out. Complete the splice work per locally approved method, install splices into the splice slots and route the remaining fiber around the tray.

E. Complete the Buffer/Fiber Preparation for a MidSpan Splice

1. Locate area of cable to be opened. Make the appropriate cable opening, as shown in the illustration below, or per your company's requirement. Maximum opening shown in illustration below.



A - Cable sheath opening approx. 96 inches (2440 mm)
B - Strength member approx. 2-1/4 inches (57 mm)
C - Protective(Continuity Ribbon) Shield (if present) 1.5 inches (40 mm) or 1/2-inch (12 mm) of corrigated shield.

2. Following Section C, page 4, install the mounting/grounding brackets on the cable to each side of the opening.
3. Remove the o-ring from the sealing trough of the closure at the top of bottom half.
4. Position the cables through the port openings and secure the mounting/grounding brackets to the mounting plate at the closure base. Carefully feed the looped mid span cable through the ports with slit open- ings, then secure the cable hardware to the closure base.
5. Separate the buffer tubes (with fibers to be spliced) from the group. Route the remaining buffer tubes within the buffer storage compartment located at the base of the closure and below the splicing trays.
6. Using your company approved method, carefully open the buffer tubes exposing the fibers, leaving approximately 18 inches (460 mm) of buffer tube intact from the cable ring cut areas.
7. Select the fibers to be spliced. Follow your company approved method for cutting the fibers through and preparing the fibers for the splicing operation.

NOTE : If branch fibre cables are to be spliced, follow Section B above for preinstalling the cable sealing components.

8. Complete the fiber splicing (mechanical or fusion). **NOTE:** if Fiberlok splicing is used, be sure the closure contains the appropriate splice holders to house the Fiberlok splices.
9. Carefully route all the fibers, splices and remaining buffer tube(s) under the tray hinge and up onto the top of the splicing tray. Install the metal buffer comb attachments on each side of the tray.
10. Push the buffer tubes into the comb attachments to hold the buffers in place. Allow 1/2-inch (12 mm) of buffer tube to extend beyond the attachment before buffer tube placement.
11. Carefully route the unused fibre around the tray organizer, either in a clock-wise or counter clock- wise manner being careful not to damage the fiber. Push the splices into the tray connector splice supports. Route the remaining excess fiber inside the fiber organizer. Place the clear plastic cover over the splice tray.

F. Complete the Closure Installation (Straight Splice)

After all the fibers have been spliced and excess fiber routed around the fiber splice tray, the cables require to be locked in place with the closure port locking components.

1. Slide the grommet down onto the port with flat side fitting into the port. The grommet has slots along it's sides that fit onto keys inside the ports. If the grommet does not properly fit then rotate the grommet until the slots match the channels.

Note: If two or three cables are entering a port, then positioning the grommet in advance is required. Make sure that the slots match the keys of the port before commencing with installation of the grounding and axial load retention hardware brackets.

2. Once the grommet fits into the port, apply silicone grease to the tapered sides of the grommet. This will allow for a tighter and easier installation.
3. Repeat steps 1 and 2 for all ports being entered and sealed.
4. Place the clear plastic cover over the splice tray and snap in place. Repeat to all splice trays in closure that are being used for holding splices.

5. Place the closure lid over the base and secure in place around the flange of the closure with screws until completely tight.

G. Complete the Closure Installation (MidSpan)

1. Position the appropriate double-grommet over the cable so the flat area between the grommets face the large split tube seal grommet (A) over the cable and into position at the cable port with the larger end towards the closure. Push into the port slot until the top of the grommet meets the o-ring trough.
2. Wrap the appropriate diameter cable seal (B1 or B2) around the cable.
3. Place the 2 halves of the seal compressor (C) over the cable and snap in place. Be sure to position the short end towards the closure.
4. Place the two halfs of the nut (D) over the cable and 'slide' the two pieces together until the nut face is flush.

Note: It is recommended for the installer to practice sliding the nut pieces together 'before' attempting to in- stall over the cable.

5. Hand-tighten the nut over the threads of the port. If tightening becomes too difficult, a wrench (span) is supplied in the kit and is located at the bottom of the splice trays in side the buffer tube storage compartment.
6. Tighten the hinge in position with the supplied self-tapping screws located at each side of the trays. Place closure top over the bottom and screw down until the flanges of the top and bottom meet.

H. Flash Testing the Completed Installation

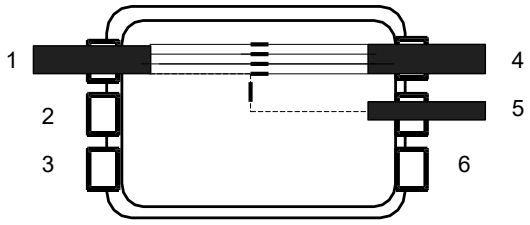
The closure may have a pressure valve preinstalled in the factory. To check for a tight seal after completing the installation, apply 5 psi of air or nitrogen to the closure. Using company approved pressure detection soap, apply the soap vigorously to all joint areas. Check for bubbles. If bubbles are seen, tighten that portion of the closure until bubbles subside.

I. Mounting the Closure

The closure may be wall, pole or strand mounted. Mounting brackets for either type mounting are available and may be purchased separately.

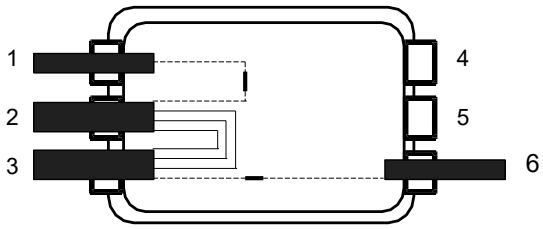
J. Complete the Closure Installation (MidSpan)

Straight Splice
with Branch



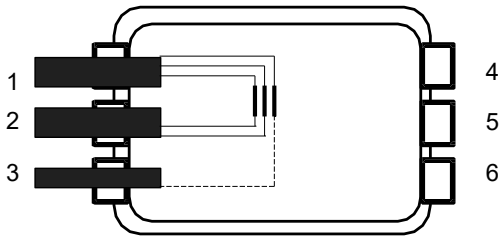
For cable ports 1, 4 and 5 use code B, C or D
For empty ports use Code A

Mid Span Application
with branch configuration



For cable ports 1, and 6 use code B, C or D. For ports 2 and 3 use either code F or G.
For empty ports use code A

Butt Splice Configuration
with Branch

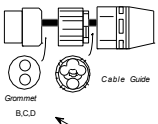


For cable ports 1, 2 and 3 use code B, C or D
For empty ports use code A

Sealing Kits

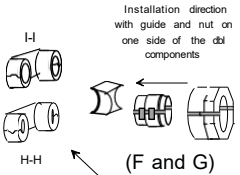
For standard cable entry

A - Sealing Cap with gasket



B - for 1 cable 13 to 19 mm (0.52" to 0.75")
C - for 1 cable 19 to 25 mm (0.75" to 1.00")
D - for 2 cables 8 mm to 13 mm (0.315" to 0.52")

[2-hole grommet for 2 cables is shown in illustration to left]



For mid-span application, using the WTC 2 Split grommets and half-piece components, assemble around the cables. Follow assembly procedure in previous pages.

F - For a looped cable w/dia. 12 mm to 16 mm (0.500" to 0.625") **Use** the **H-H** split dbl. **grommet**

G - For a looped cable w/dia. 13 mm to 20 mm (0.500" to 0.800") **Use** the **I-I** split dbl. **grommet**

Attachment Systems available:

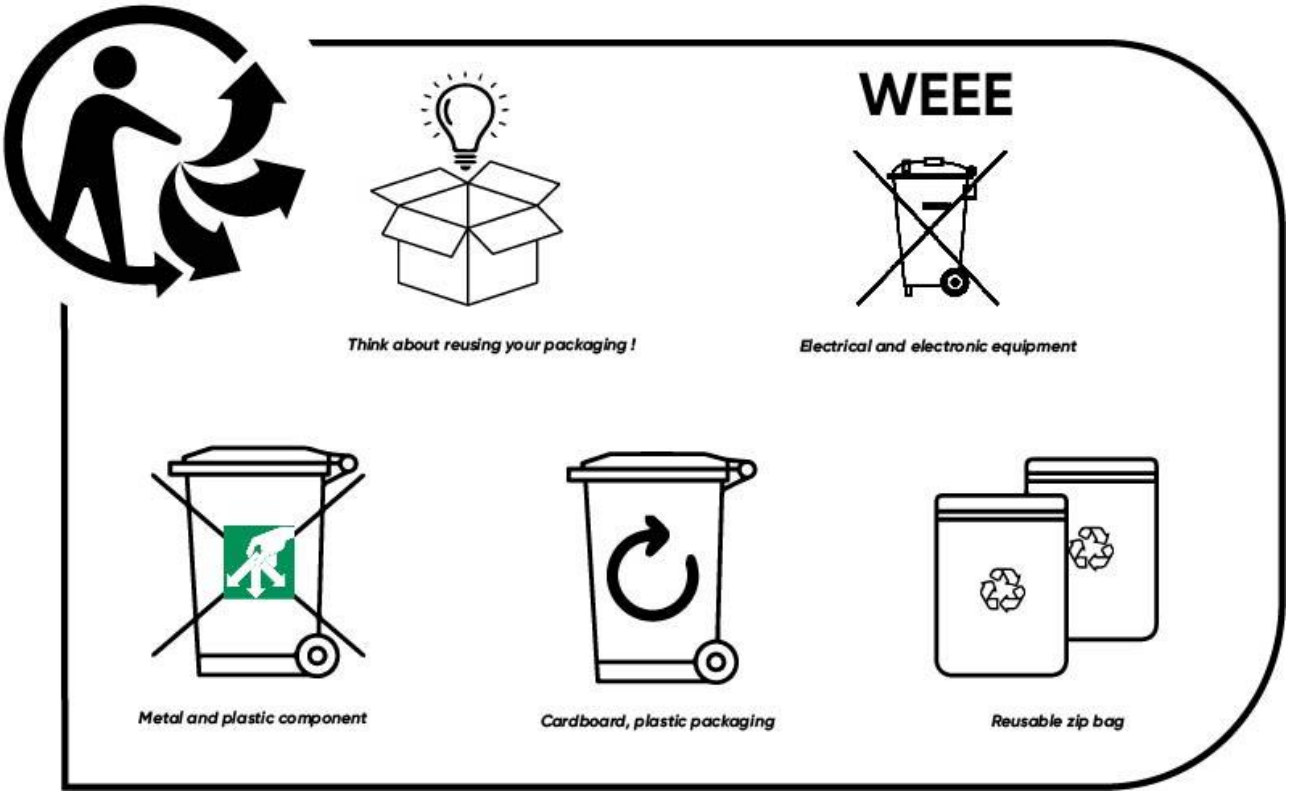
1. Pole or Wall mount bracket
2. Stainless Steel Straps for pole mounting
3. Strand Mount bracket (set)
4. Stainless Steel box for direct buried in hostile environments

Other Accessories available:

1. External grounding set

Alcatel NA
CNPLA
2512 Penny Road
Claremont, NC 28610
828 459 8797

K. *END LIFE INSTRUCTIONS*



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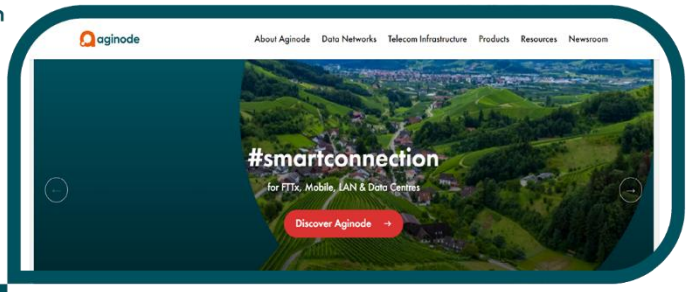

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AGINODE
1, rue Pierre Viénot
08330 Vrigne-aux-Bois
FRANCE
Tel. +33 (0) 3 24 52 61 61
info@aginode.net