

Certificate of Acceptance

PA05/07895

Supplier:
Fujikura Europe Ltd

Issue : 1
Valid From : 31/01/2025

AFL Apex Joint Closures

Product Description

An externally rated, dome-ended, polymer, mechanically re-enterable joint closure for protecting optical fibre joints at the lineside.

Fibre cables enter through sealable ports in the base and fibres are routed and managed into splicing trays where they can be fusion spliced to fibres from other cables.

The dome can be quickly removed by re-enterable mechanical means to reveal the fibres and splice trays inside.

Spares and extra configurable items to allow flexibility in ordering for custom projects.

Product Image

AFL Apex joint closure and spares for the above



Scope of Acceptance

Full Acceptance

AFL Apex range of fibre Dome closures are accepted for use across Network Rail's estate for distribution, managing and splicing optical fibres.

See user condition 3; Manufacturer training is required before using.

Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use and trial use on railway infrastructure for which Network Rail is the Infrastructure Manager.

Reviewed by:

Authorised by:



Aamir Malik
Product Acceptance Coordinator



David Choda
Acting Network Technical Head of Telecoms

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Specific Conditions

The following Conditions are specific to the approved product/s contained within this Certificate. These conditions must be adhered to in addition to the Network Rail General Conditions contained within the "General Terms and Conditions" section. Failure to adhere to these conditions may result in the withdrawal or suspension of Acceptance of some, or all of the items contained within the accepted configuration.

Supplier

- 1) Supply only products as set out in this certificate.

User

- 1) Fibre joint closures are to be protected in an underground chamber, in a troughing joint bay, in a cabinet, or in building as appropriate.
- 2) A padlock is to be fitted to lock the equipment where risk assessment indicates that the risk of unauthorised intrusion into the closure/Termination is unacceptable.
- 3) Manufacturer familiarisation training must be taken prior to using and boxed instructions and training materials should be followed by users.

Product Configuration

Hardware

Part No.	Name	Description	Catalogue No.
AX-2-B-L-6-4-0-B-NR	APEX X-2 Closure	APEX X2 with 6 x Fully Loaded Splice trays, supplied with 4 Cable Strain relief Kits (CAU) and no ground lugs. Supplied with inner basket.	0087/050097
AX-2S-B-L-6-4-0-X-NR	APEX X-2s Closure	APEX X2s with 6 x Fully Loaded Splice trays, supplied with 4 Cable Strain relief Kits (CAU) and no ground lugs.	0087/050098
AX-TRAY-MOD-20	APEX Splice Module	(18 single fusion triple stacked, 12 mass fusion double stacked, 6 mechanical) – Pack of 20	0087/050099
AX-TRAY-2-4	APEX X-2 Tray Fully Loaded with Four Splice Modules	576 fibres per tray, SWR	0087/050100
AX-TRAY-2S-2	APEX X-2S Tray Fully Loaded with Two Splice Modules	288f, SWR	0087/050101
AX-KIT-CBLSTRN	APEX CAU	X-2 and X-2S Single Cable Strain Relief/Cable Attachment Unit (CAU) Kit	0087/050102
AX-KIT-WEDGE-2	APEX X-2 and X-2S Wedge Replacement Kit	X-2 and X-2s Replacement Wedge Kit	0087/050103
AX-KIT-GEL-2	APEX X-2 and X-2S Inner Base Gel Replacement Kit	X-2 and X-2s Replacement Base Gel	0087/050104
FC104649	APEX X-2 and X-2S Installation Stand	Installation Stand compatible with X-2 and X-2s APEX	0087/050105
FC117454	Crown bracket	Crown Bracket to secure armoured cable to outer base of closure	0087/050106

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Part No.	Name	Description	Catalogue No.
FP-05	Ribbon splice protector	Ribbon splice protector, 12-fibres, 40mm length (final sealed diameter 4.5mm x 4mm), outer/inner tube material Ethylene-Vinyl Acetate, inner tube with hot melt glue and heat-resistant glass strength member.	0087/050107

Assessed Documentation

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
Test Report	Apex X2 - GR 771 Test Report Summary - 03232023	Rev 0	22/03/23	1
Test Report	Apex X2 - GR 771 Test Report - 01312023	Rev 2	30/01/23	1
Instructions	AFL Apex® X-2 Sealed Splice Closure Installation Instructions	Revision E	01/03/22	1
Supporting Evidence	Anixter on site trial of Fibre joint installation and testing of HC fibre joints	Author PTaylor	09/01/25	1
Supporting Evidence	PA approval Meeting for New HC fibre joints- Timed installation tests	Author PTaylor	09/01/25	1
Supporting evidence	432F AFL HC joints build and test summary field report	Author AFL Ltd	09/01/25	1

Manuals and Training Materials

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
Instructions	AFL Apex® X-2 Sealed Splice Closure Installation Instructions	Revision E	01/03/22	1
Supplemental Instructions	NR DISAF Install guide into APEX closure	Draft	10/01/25	1

Certificate History

Issue	Date	Issue History
1	31/01/2025	First approved for use.

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Contact Details

Supplier

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General Terms & Conditions

1) General

- 1) This certificate can only be amended by Network Rail Product Acceptance, the relevant Network Technical Head or nominated delegate. Any alterations made by a other persons will invalidate the entire certificate.
- 2) Failure to abide by the requirements in this Certificate of Acceptance may invalidate the certificate, thereby restricting the right to operate the product and / or limiting the future supply and deployment of the product on the infrastructure.
- 3) If this is a Trial Certificate which includes a Trial Monitoring Period or Trial Expiry date, evidence should be submitted to meet the included trial criteria before the date has passed for the Lead Reviewing Engineer to assess if the product can be given Full Acceptance. If this cannot be achieved, the Product Acceptance team should be contacted via prodacc@networkrail.co.uk to seek guidance. If this is a Full Certificate and includes a review date, the Product Acceptance team should be contacted via prodacc@networkrail.co.uk to seek guidance.

2) Manufacturer

The Manufacturer shall:

- 1) Ensure that all products supplied comply with the standards defined in the Acceptance Requirements or otherwise documented as part of the assessment, including meeting the reliability requirements included in the Network Rail Design for Reliability Standard (DFR) NR-L2-RSE-0005 and in any deed of warranty for the relevant certificate number.
- 2) Notify Network Rail Product Acceptance in writing (email prodacc@networkrail.co.uk):
 - a. Within 48 hours, of any deficiencies affecting the quality, functionality or safety integrity of the product (including corrective action undertaken or proposed).
 - b. Of any intended change to the accepted product; changes include:
 - i. a change to the product configuration (to the actual product or its application);
 - ii. a variation to or addition of manufacturing locations or processes;
 - iii. a change in the name or ownership of the manufacturing company;
 - iv. any changes to the ability or intention to support with technical services, spares or repairs.
- 3) The Manufacturer shall provide Network Rail Product Acceptance or National Supply Chain (NSC) at least 12 (twelve) months notice of its intention to discontinue supply or to provide such notice as is reasonable if such discontinuance is outside its control and will offer the opportunity of a Last Time Buy to Network Rail together with date for last order placement and supply of the parts affected. The introduction of proposed alternative products shall be communicated to Network Rail Product Acceptance.
- 4) Provide further copies of operating and maintenance manuals to purchasers / users of the product as necessary (including certificates of conformance, calibration etc).
- 5) Provide further copies of training manuals and an appropriate level of training to purchasers or users of the product as necessary.
- 6) Where applicable, specialist technical support, repairs and servicing of the product shall be carried out by the Original Equipment Manufacturer (OEM) or authorised agent only.
- 7) Network Rail may request information from the manufacturer to prove product compliance with clauses 1 and 2 above and reserve the right to suspend and/or withdraw any application where information is not forthcoming within a reasonable timeframe.
- 8) In accordance with Network Rail's Quality Assurance Policy Statement, where the specification and/or Product Acceptance Certificates specify quality assurance classifications for the products, the manufacturer shall comply with the specified level of quality assurance for each product and allow Network Rail access to carry out its quality assurance checks.
- 9) The manufacturer shall give Network Rail's representatives access at all reasonable times to its premises and allow them to inspect its quality systems and production methods and, if requested, to inspect, examine and test the products both during and after their manufacture and the materials being used in their manufacture.

3) Conditions of Use

Specifiers, installers, operators, maintainers, etc. using the product shall:

- 1) Comply with the certificate conditions. If a condition is not understood guidance must be sought from Network Rail Product Acceptance.
- 2) Check that the application of use complies with the relevant certificate's scope of acceptance.
- 3) Report any defect if it is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway in writing to Network Rail Product Acceptance.
- 4) Inform Network Rail Product Acceptance in writing of a change to the product configuration (or to the actual product or its application).
- 5) Operate, maintain and service the product in accordance with Network Rail standards and Operation and Maintenance manuals as appropriate.
- 6) Be appropriately trained and authorised for the installation, maintenance and use of the product.
- 7) Only send products for repair or reconditioning to the Original Equipment Manufacturer (OEM) or authorised agent.
- 8) Users are to be aware that Product Acceptance is not a substitute for design approval.

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4) Compliance

Railways and Other Guided Systems (ROGS) Regulations

1) Where the product is to be used in areas where Network Rail is not the Infrastructure Manager (e.g. leased stations), the sponsoring applicant shall additionally obtain formal consent from the Infrastructure Manager for the locality where the equipment is to be installed. This may include a requirement for additional safety verification. The decision of that Infrastructure Manager is binding, and cannot be overridden by Network Rail except by the escalation processes established in the ROGS regulations

2) As required in Railway Group Standard RIS-8270-RST, at each use of this product the project or group responsible for installation and commissioning shall be required to demonstrate compatibility with:

- a. All rail vehicle types that have access rights over the area affected by the change
- b. Infrastructure managed by others
- c. Neighbours.

Railway Interoperability Regulations

3) For interoperable constituents of systems the project or group responsible for installation and commissioning shall be required to demonstrate compliance with the relevant Technical Specifications for Interoperability (TSI) where appropriate.

4) An authorisation from the national safety authority (i.e. the Railway Safety Directorate of the Office of Rail and Road) is required before the equipment is to be used in revenue earning service.

5) Supply Chain Arrangements

1) Certificates of acceptance do not imply any particular quantity of supply nor any exclusivity of supply.

2) Products may be purchased by Network Rail or its agents, suppliers or contractors.

3) Suppliers should note that it is not necessary to enter into any exclusive supply arrangements with resellers or other suppliers