

Certificate of Acceptance

PA05/01735

Supplier: Passcomm Limited

Issue : 2
Valid From :

01/06/2018

Externally Rated Twisted Pair Copper Cable Termination Module

Product Description

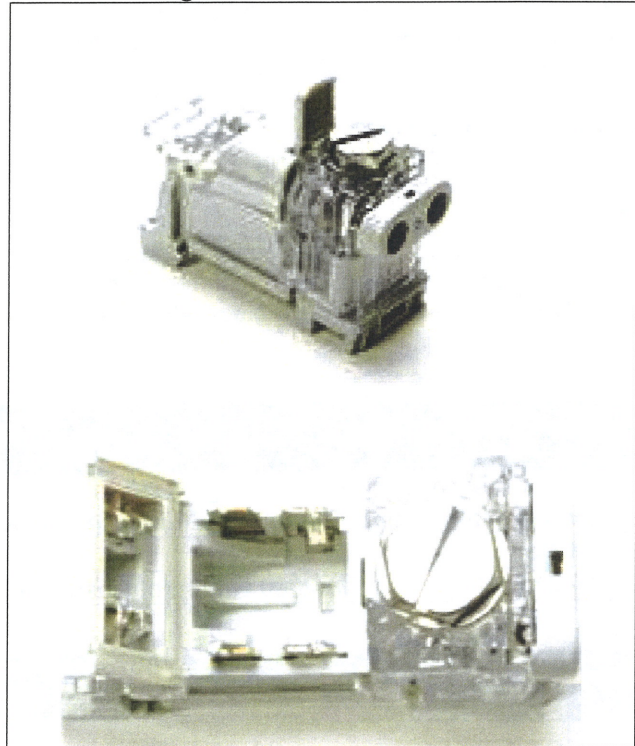
MX2000 waterproof insulation displacement connector (IDC) modules for terminating twisted pairs in a copper cable and connecting them to jumper wires in harsh environmental conditions, such as in lineside cabinets without climate control.

Each module will terminate a single pair of conductors, is mounted on a standard DIN rail, and are like-for-like replacements for the discontinued Mondragon VX modules in performance and dimensions.

Specialist tools are not required for termination. Network conductors are terminated by screwing down the bolt and jumpers are terminated by pushing down the terminating bar.

The modules offer testing in both directions and circuit disconnection from terminals in the central connection area.

Product Image



Scope of Acceptance

Full Acceptance

Accepted for use throughout Network Rail's Estate on all ac-electrified, dc-electrified, and non-electrified lines where requisite measures are in place to suitably control the inherent electrical hazards.

Accepted for terminating solid copper conductors to NR/L2/TEL/00015.

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:

Usha Trivedi
Product Acceptance Coordinator

Dan Mandoc
Professional 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/Manufacturer

- 1) Refer to general condition.

User

- 1) MX2000 Gas Discharge Tube (GDT) protection modules are not included on this certificate. Should they be required then an application for their acceptance should be made in good time for their deployment.
- 2) Not suitable for terminating stranded conductors.

Product Configuration

Hardware (Maintenance Spares and Line Replaceable Units)

Part No.	Description	Catalogue No.
CM-MX2000	MX2000 waterproof insulation displacement connector module.	0087/000305

Assessed Documentation

Reference	Title	Doc. Rev.	Date
-	Paragraph by paragraph statement of compliance to Network Rail specification SP/FTN(D&D)/015 - Environmental Testing of Copper Cable Practices.	1	23.03.2018
-	3M Declaration of Conformity to TR 0975	1	21.02.2018
-	Performance Comparison Matrix between VX and MX2000	1	21.03.2018
C249800A	Data sheet for MX200 connector module	1	-
TR975	TR975 test specification excerpt on vibration parameters	1	21.03.2018
MX2000-spec-12/2000	Technical Specification for MX2000 Connector Module	1	01.12.2000

Certificate History

Issue	Date	Issue History
1	08.07.2013	Original acceptance certificate for Mondragon VX termination module
2	01.06.2018	MX2000 copper cable termination module like-for-like replacement for discontinued Mondragon VX module.

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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 Technology Introduction Group. Any alterations made by a different person 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) Upon the review date this certificate and the product it relates to is invalid and not accepted for use. Manufacturers are to make an application for a review prior to the review date.

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 Acceptance Requirements and in any deed of warranty for the relevant certificate number.
- 2) Notify Network Rail Technology Introduction Group:
 - 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 Technology Introduction Group 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 the Network Rail Technology Introduction Group.
- 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 2011, where the specification and/or Product Acceptance Certificates specify quality assurance classifications (QA1 to QA5) 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 Technology Introduction Group.
- 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 Technology Introduction Group.
- 4) Inform Network Rail Technology Introduction Group 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 sponsor 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 GE/RT8270, 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 Regulation) 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) Manufacturers should note that it is not necessary to enter into any exclusive supply arrangements with resellers or other suppliers