

Copper Above Ground Cable Joint



Enclosure

The above ground joint is intended for the jointing and termination of longitudinal cables, 40 pair and high frequency carrier quad. This enclosure is intended to replace the current Highways Agency standard of CJE's within the fully adapted infrastructure. We have engineered our design to facilitate the enclosure being secured in the standard Highways Agency 609 roadside furniture. Our compact design manages both transmission and distribution cable management independently. The Clear polycarbonate windows provided in each cover allows the cable joiner to trace or observe the terminations to either transmission or distribution circuits without the need to disturb the integrity of the enclosure.

Benefits & Features

- It is possible to isolate any leg of any pair on the transmission side of the joint, at any point on the motorway.
- Every pair of both A and B cables on the transmission side can be broken out on to the local side and is available for the connection of local equipment.
- It is possible to isolate any leg of any pair on the local side of the joint, at any location on the motorway.
- It is possible to configure any joint for any loading type by adding or removing loading coil boards.
- It is possible to fit build out capacitor boards to either A or B cables on the longitudinal side at any location.
- On the local side connection blocks, it is possible to allow the fan out of any pair of the main cables. This is usually only relevant for RS485 circuits.

Enclosure Specification:

- Enclosure Manufactured from Aluminium grade NS4
- Finished in Alcom 1200 and painted RAL7035
- Ingress Protection rating IP68
- All fittings and screws stainless steel grade 302
- All manufacturing processes and materials comply with Highways Agency specification TR1100 issue C March 2003.
- The copper enclosure complies and exceeds the specification requirements of the New Generation Copper Above Ground Cable Joint MCE 2249
- Weight of entire Copper Closure Equipped 5.00 Kgs
- Overall Sizes 259 width x 280 deep x 783 high

Cable Glands / Blanking Plugs

The Gland arrangement offers 2-off PG36's on the A side for the 40 pair cables. On the B-side is 3 PG36's for optional 40 cables or blanked multi glands may be placed into these holes, which can then provide up to 15 entry ports in each. Also the B-side has 2 PG21, 2 PG16 and 4 PG11 **to offer the installer a high range of cable sizes without the need for drilling**. The unit comes with all the B side holes blanked so in the field all that is required is the removal of the blank plug and fitting of the correct stuffing gland. The A side glands come pre-fitted with a taper plug insert to retain IP integrity prior to installation.

Gland Specification:

- Blanks / Glands – Nylon Sealing Gland – Buna – N
- Ingress Protection Rating IP68
- Flammability Rating UL94V-0
- RoHS Directive 2002/95/EC Compliant
- Operating Temperature – 40 to +100 Degrees Celsius
- Locking Nuts Brass Nickel Plated

Printed Circuit Board

The Boards are manufactured from a Duraver-E-CU quality 104KF laminate material. The PCB's are bare board tested and certified prior to any component assembly. All the electronic components, circuits and termination do not contain any lead In addition to this a high CTI solder resist has been specified to create highly moisture and tacking resistant circuit board. The components specified are to a very high quality and performance standard, they are also compatible to those currently approved by the Highways Agency. The terminations are under continuous tension, and are self-extinguishing to UL94 V2. All build out connectors are all of a locking type to prevent them vibrating loose over a period of time. The build out boards and connectors are colour coded to aid assembly and assists the jointer in loading the appropriate value board to the correct position.

Specification

PCB

- Flame retardant Min UL94 V1
- Supplied in accordance with the RoHS directive (2002/95/EC)
- Passes CTI test at 400V AC IEC112
- ID Reference UL/ANSI: FR-4, ANSI FR4/21
- Conductor range 0.08 through to 2.5mm²

Connector blocks

- PA6.6
- Flame resistant, Self extinguishing to UL 94 V2
- Contacts HC Copper, Specially Tinned
- Clamping Spring CrNi Spring Steel under continuous tension

Din Connectors

- Flammability UL94 V0
- Contacts Brass Selective gold over nickel

Frame

The frame, which is secured to the enclosure, is manufactured from stainless steel and powder coated to enhance the safe handling of the enclosure. This component helps the enclosure to be transported from the site to the 609 cabinets safely. The frame provides a quick and easy solution for hanging and securing the enclosure inside the 609 cabinets, using existing fastening positions.

Specification

- Stainless Steel 304 2B. Powder coated finish
- Item fully tig welded in joining positions

Design, Fabrication, Assembly and Final Inspection

All areas of manufacture are controlled by Rider Comms Ltd who operate a quality management system which complies with the requirements ISO 9001: 2000 Certificate No: 23100.

Ordering Information

Part Number	Description	Qty Per Box
RCL90/1110	Above Ground Copper Joint	1



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