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3M COLD SHRINK QS-III INLINE
SPLICING KIT 94-AC640-1
WITH COLD SHRINK JACKETING TUBE
SUITABLE FOR POLYMERIC SINGLE CORE CABLES
18/33 kV ACC. TO VDE 0273
(IEC 502-1)

SELECTION CHART

KIT NUMBER	DIAMETER OVER CABLE JACKET MAX (mm)	DIAMETER OVER INSULATION [E] (mm)	CROSS SECTION (mm ²)	DIAMETER OVER CONNECTOR (mm)	CONNECTOR LENGTH MAX. (mm)
94-AC640-1 (5468A)	80	31.5-52.6	300-630	22.1-52.6	210

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TECHNICAL CENTRE. EASTHAMPSTEAD Rd,
BRACKNELL, BERKS. RG12 1JE. ENGLAND

1	RELEASED	ADP	16.01.03
ISSUE	DESCRIPTION / ECO	BY	DATE

ALL STATEMENTS, TECHNICAL INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED ON TESTS WE BELIEVE TO BE RELIABLE. HOWEVER, SINCE THE CONDITIONS OF USE AND THE APPLICATION ARE BEYOND OUR CONTROL THE PURCHASER IS RESPONSIBLE FOR THE PERFORMANCE OF THE SPLICES AND TERMINATIONS MADE IN CONNECTION WITH THE USE OF DATA OR SUGGESTIONS STATED HEREIN.

INSTALLATION INSTRUCTIONS

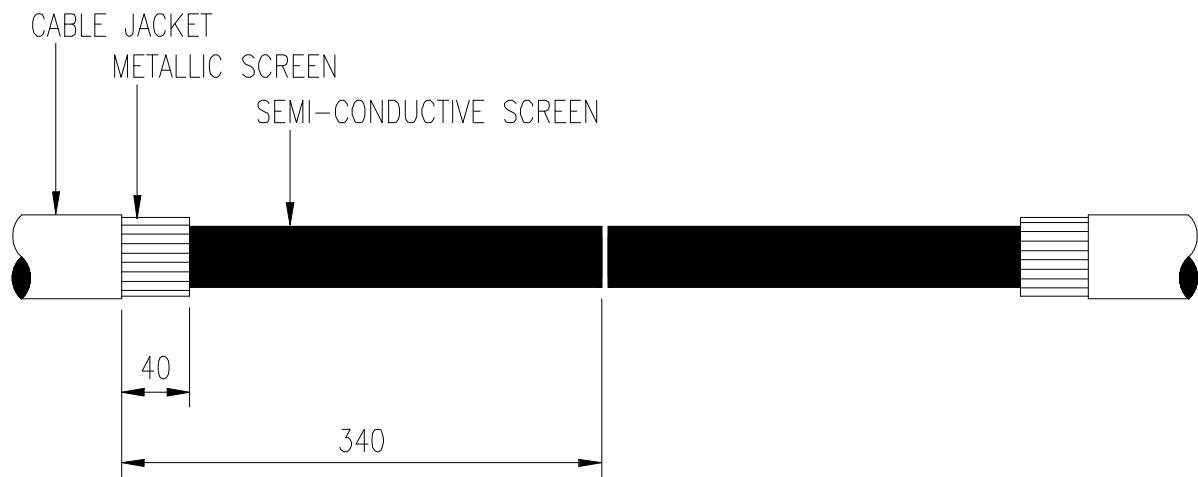
MOD ENG :	DES.ENG. : S.COPPERTHWAIT
DRAWN : A.D.PARKER.	CHECKED :
CAD FILE : 2817-6	RELEASED :

3M ELECTRICAL PRODUCTS

XE 0091 2817 6

SHEET
1 OF 5

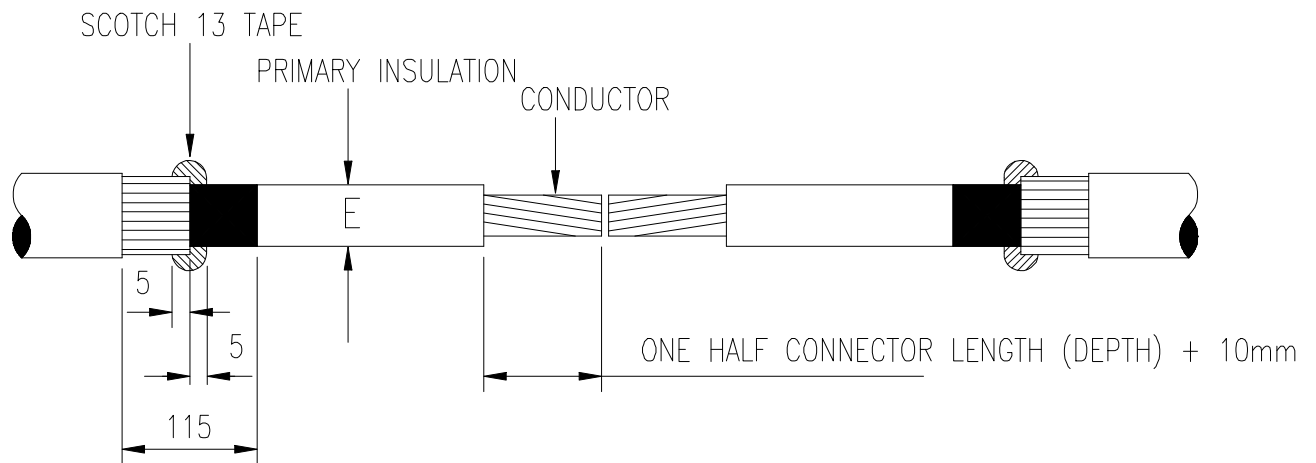
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FIG.1

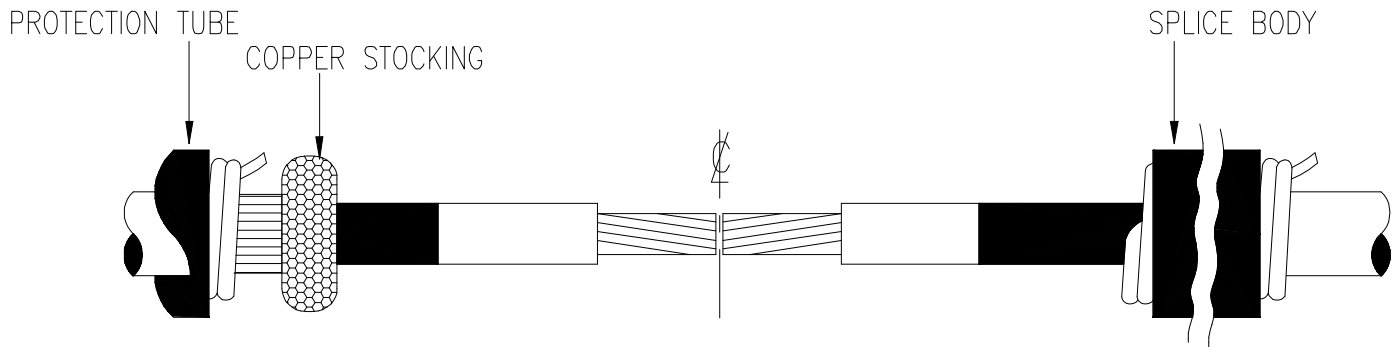
CABLE WITH EXTRUDED SEMI-CONDUCTIVE SCREEN



2.1 FIX THE METALLIC SCREEN WITH A BINDING OF SCOTCH 13 TAPE

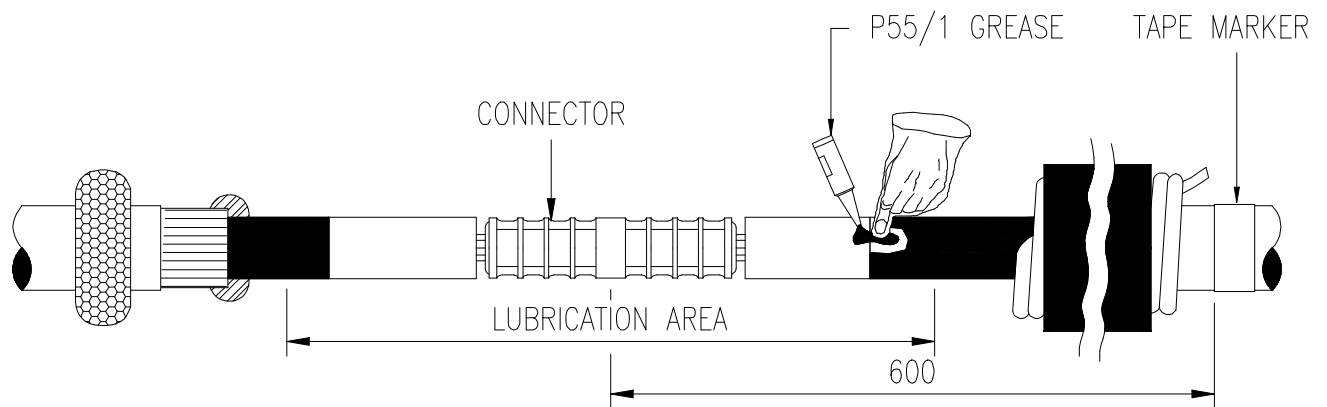
FIG.2

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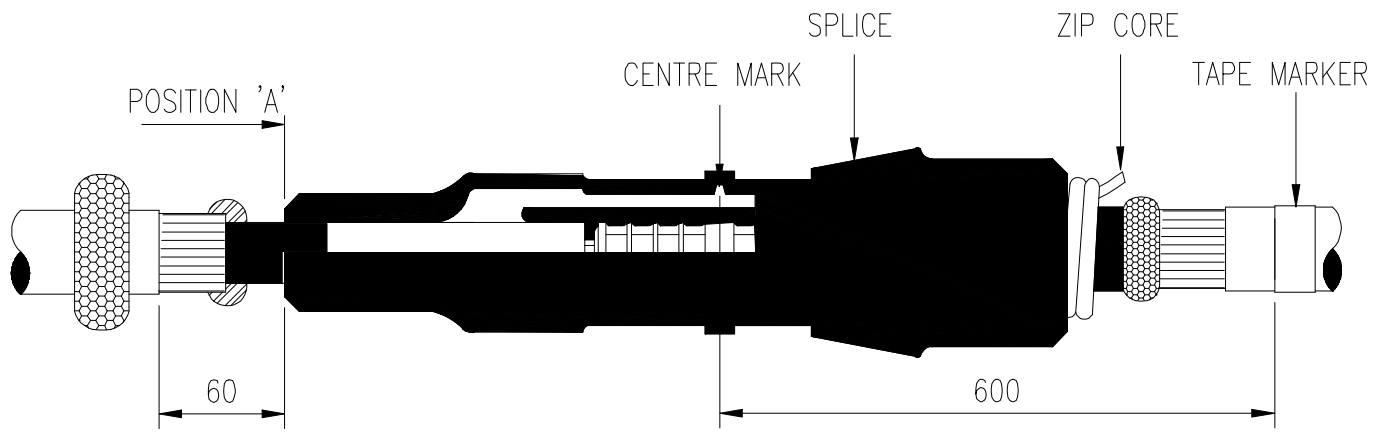
3.1 SLIDE THE PROTECTION TUBE, COPPER STOCKING AND THE SPLICE BODY ONTO THE CABLE ENDS.

FIG.3



- 4.1 CRIMP THE CONNECTOR, REMOVE THE EXCESS GREASE. THEN SMOOTH AND CLEAN THE CONNECTOR.
- 4.2 APPLY A TAPE MARKER TO CABLE JACKET 600mm FROM CENTRE OF THE CONNECTOR.
- 4.3 ENSURE THE MIN. DIAMETER OVER THE CONNECTOR. IF NECESSARY OVERWRAP THE CONNECTOR WITH SCOTCH 13 TAPE UP TO THE GIVEN DIAMETER.
- 4.4 APPLY A LIBERAL AMOUNT OF P55/1 LUBRICANT ON THE CABLE INSULATION, MAKING CERTAIN TO FILL IN EDGE OF THE CABLE SEMI-CONDUCTIVE LAYERS USING THE PLASTIC GLOVE PROVIDED.

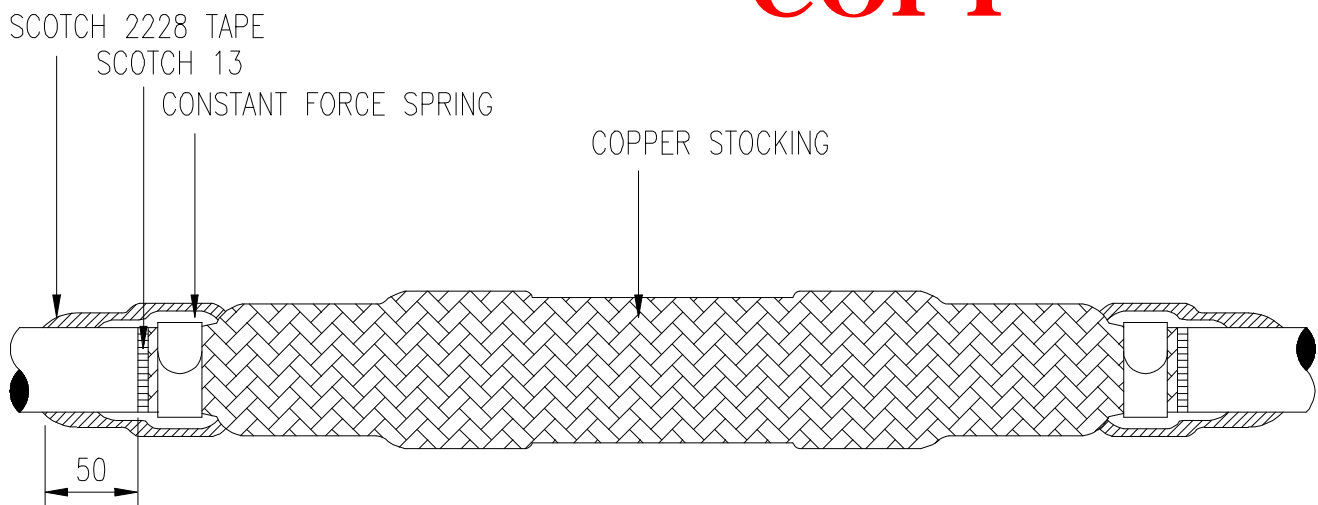
FIG.4



- 5.1 POSITION THE SPLICE BODY OVER THE CONNECTOR AREA.
- 5.2 USING POSITION 'A' AS A STARTING POINT, SHRINK THE BODY ONTO THE CORE BY UNWINDING THE SPIRAL. ONCE THE BODY HAS BEEN SHRUNK PAST IT'S CENTRE MARK, AND BEFORE IT HAS BEEN SHRUNK FULLY ACROSS THE CONNECTOR, ENSURE THE BODY IS IN POSITION USING THE PVC TAPE AND CENTRE MARK. IF NOT CORRECTLY POSITIONED MAKE CORRECTION BY DISPLACEMENT.
* * PLEASE NOTE:- THE SYMMETRICAL POSITION OF THE JOINT BODY IS CRITICAL * *
- 5.3 REMOVE THE TAPE MARKER.

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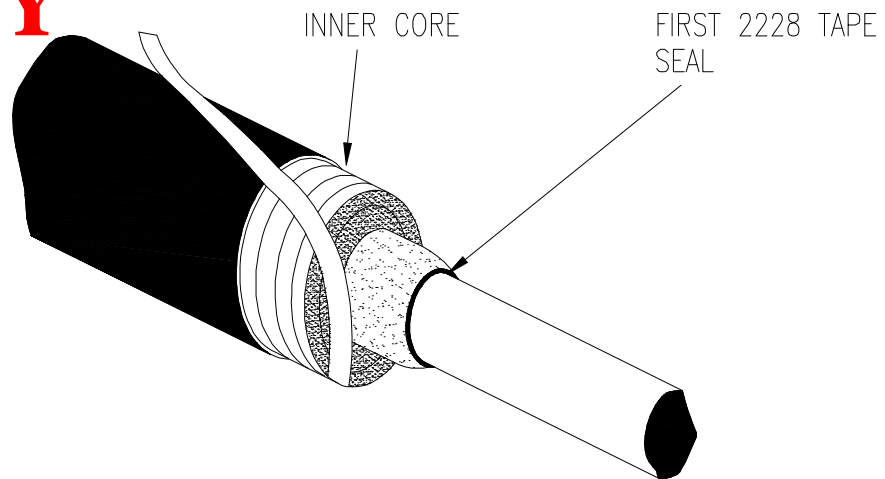
FIG.5



- 6.1 CLEAN THE CABLE JACKET FOR APPROX. 150mm.
- 6.2 CENTRE THE COPPER STOCKING OVER THE SPLICE AND FIX IT BY MEANS OF A CONSTANT FORCE SPRING ON THE METALLIC SCREEN. CUT OFF THE REMAINING WIRES OF THE STOCKING.
- 6.3 OVERWRAP THE CONSTANT FORCE SPRINGS WITH TWO HIGHLY STRETCHED LAYERS OF SCOTCH 13 TAPE, APPLIED IN THE SAME DIRECTION AS THE SPRINGS.
- 6.4 STARTING 50mm ONTO THE CABLE JACKET, WRAP 2228 TAPE FROM CABLE JACKET UP ONTO THE COPPER STOCKING AT BOTH ENDS OF THE JOINT. ENSURE A MINIMUM DIAMETER OF 40mm OVER THE 2228 TAPE.

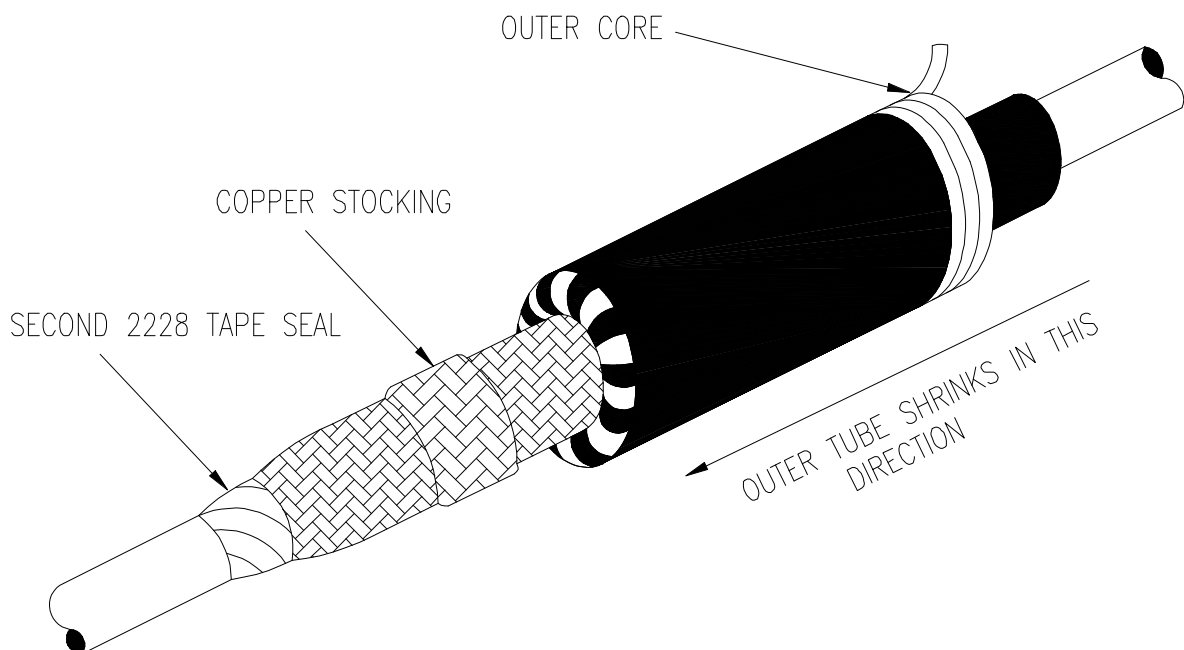
FIG.6

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- 7.1 BEGIN TO INSTALL THE OUTER PROTECTION COLD SHRINK TUBE BY COMPLETELY COVERING THE FIRST 2228 TAPE AND SLOWLY PULLING AND UNWINDING THE INNER CORE COUNTERCLOCKWISE TOWARD THE SPLICE BODY. THE OUTER CORE SHOULD REMAIN RELATIVELY STATIONARY WHILE UNWINDING THE INNER CORE. IF THE OUTER CORE BEGINS TO MOVE TOWARDS THE FIRST 2228 TAPE SEAL, GENTLY PULL THE OUTER CORE AND PROTECTION TUBE TOWARDS THE SECOND 2228 TAPE SEAL AND CONTINUE UNWINDING THE INNER CORE.

FIG.7



- 8.1 CONTINUE TO INSTALL THE COLD SHRINK TUBE OVER THE SECOND 2228 TAPE SEAL ON THE OTHER SIDE OF THE JOINT BY SLOWLY PULLING AND UNWINDING THE OUTER CORE COUNTER CLOCKWISE. THIS PORTION OF THE COLD SHRINK TUBE INSTALLS DIFFERENTLY THAN TYPICAL COLD SHRINK PRODUCTS IN THAT AS THE TUBE SHRINKS, THE END ROLLS UNDER. THE TUBE MIGHT NEED A SLIGHT PUSH TO GET OVER THE SECOND 2228 TAPE SEAL.

FIG.8