COLDSHRINK JOINT FOR LOW VOLTAGE SINGLE/MULTI CORE LEAD SHEATHED AND PVC/XLPE OVERSHEATHED CABLES UP TO 3.3kV

NOMINAL CONDUCTOR AREA (mm^2)	1 CORE 1kV	2 CORE 1kV	3 CORE 1kV	4 CORE 1kV	3 CORE 3.3kV
1.5	N/A	LC1	LC1	LC1	N/A
2.5	N/A	LC1	LC1	LC1	N/A
4	N/A	LC1	LC1	LC2	N/A
6	N/A	LC2	LC2	LC2	N/A
10	N/A	LC2	LC2	LC3	N/A
16	N/A	LC3	LC3	LC3	LC4
25	N/A	LC3	LC3	LC4	LC4
35	LC2	LC3	LC4	LC4	LC4
50	LC2	LC3	LC4	LC4	LC4
70	LC2	LC4	LC4	LC5	LC5
95	LC2	LC4	LC5	LC5	LC5
120	LC3	LC4	LC5	LC5	LC5
150	LC3	LC5	LC5	LC6	LC5
185	LC4	LC5	LC6	LC6	LC6
240	LC4	LC6	LC6	LC7	LC6
300	LC4	LC6	LC7	LC7	LC7
400	LC4	N/A	N/A	N/A	N/A
500	LC5	N/A	N/A	N/A	N/A
630	LC5	N/A	N/A	N/A	N/A
800	LC6	N/A	N/A	N/A	N/A
1000	LC6	N/A	N/A	N/A	N/A

ISSUE	DESCRIPTION / ECO	BY	DATE
12	LATEST REQUIREMENT	MJE	07.07.17
11	LATEST REQUIREMENT.	MJE	26.03.15
10	LATEST REQUIREMENT.	ERH	18.04.12
9	LATEST REQUIREMENT.	ERH	11.09.09
8	LATEST REQUIREMENT.	ERH	05.08.09

COLDSHRINK JOINT
FOR LOW VOLTAGE SINGLE OR MULTI CORE
LEAD SHEATHED AND
PVC/XLPE OVERSHEATHED CABLES UP TO 3.3kV
INSTALLATION INSTRUCTIONS

Drawn : A.D.PARKER	25/05/04	Des.Eng: A.RUSSELL	
Cad File: XE-0091-2205-4		Checked:	

MAXIMUM RECOMMENDED CONNECTOR DIAMETER (mm.) FOR 1–4 CORE CABLES	LC1	LC2	LC3	LC4	LC5	LC6	LC7
	20	20	24	28	32	45	45

IMPORTANT NOTICE: FLUTED CONNECTORS MUST NOT BE USED WITH THESE JOINTS

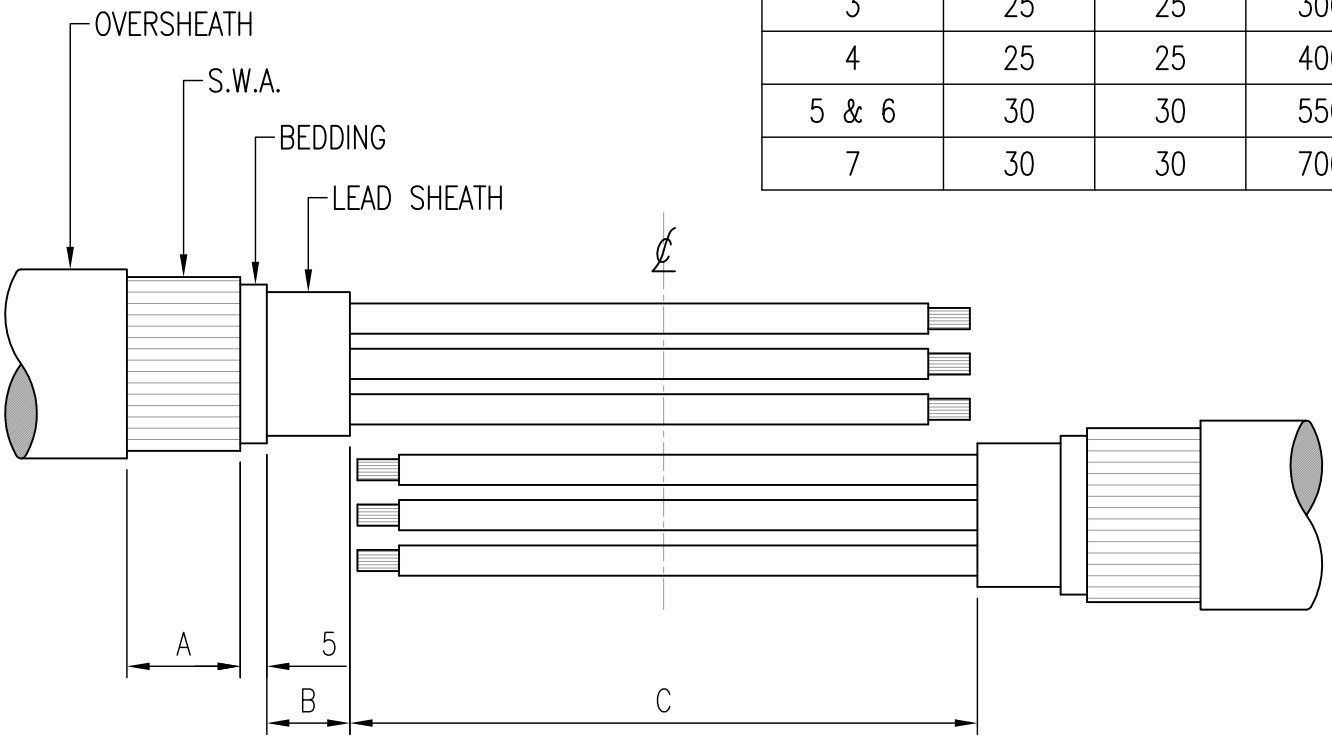
THE CONNECTOR MUST HAVE A SMOOTH PROFILE ALONG ITS FULL LENGTH

NOTE: TO SELECT KITS FOR MULTI CORE CABLES, PLEASE SELECT BASED ON THE OUTER DIAMETER OF THE CABLE, AS WELL AS THE DIAMETER OVER THE ARMOUR. PLEASE ALSO TAKE INTO CONSIDERATION THE SPACE NEEDED FOR THE CHOSEN CONNECTOR.

	LC0	LC1	LC2	LC3	LC4	LC5	LC6	LC7
CABLE OD RANGE (mm)	10.1 – 17.5	16.1 – 33.1	16.2 – 33.1	16.2 – 33.1	24.9 – 56.4	37.8 – 84.3	37.8 – 84.3	62.5 –128.5
ARMOUR DIAMETER RANGE(mm)	4 – 15	9 – 15	14 – 22	18.5 – 29	23.5 – 37	31 – 50	44 – 70	44 – 70

FIG.1

STRIP DIMENSIONS (mm)			
KIT SIZES	A	B	C
0	25	25	140
1 & 2	25	25	200
3	25	25	300
4	25	25	400
5 & 6	30	30	550
7	30	30	700

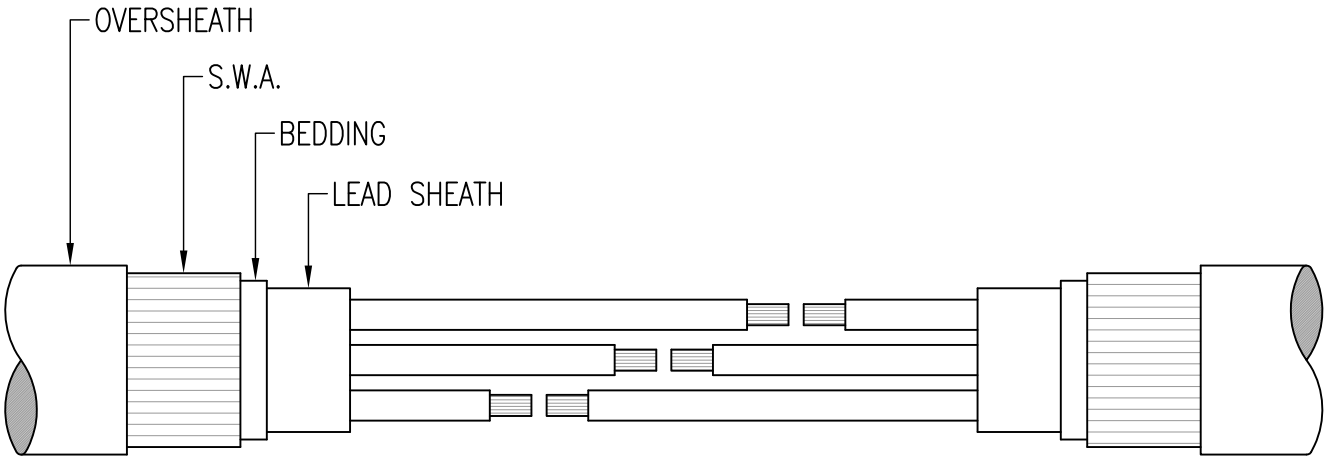


1.1 PREPARE CABLES AS PER FIG.1 AND DIMENSIONS IN TABLE 1.

1.2 RESERVE THE CABLE OUTER JACKET SHEATHS FOR LATER USE.

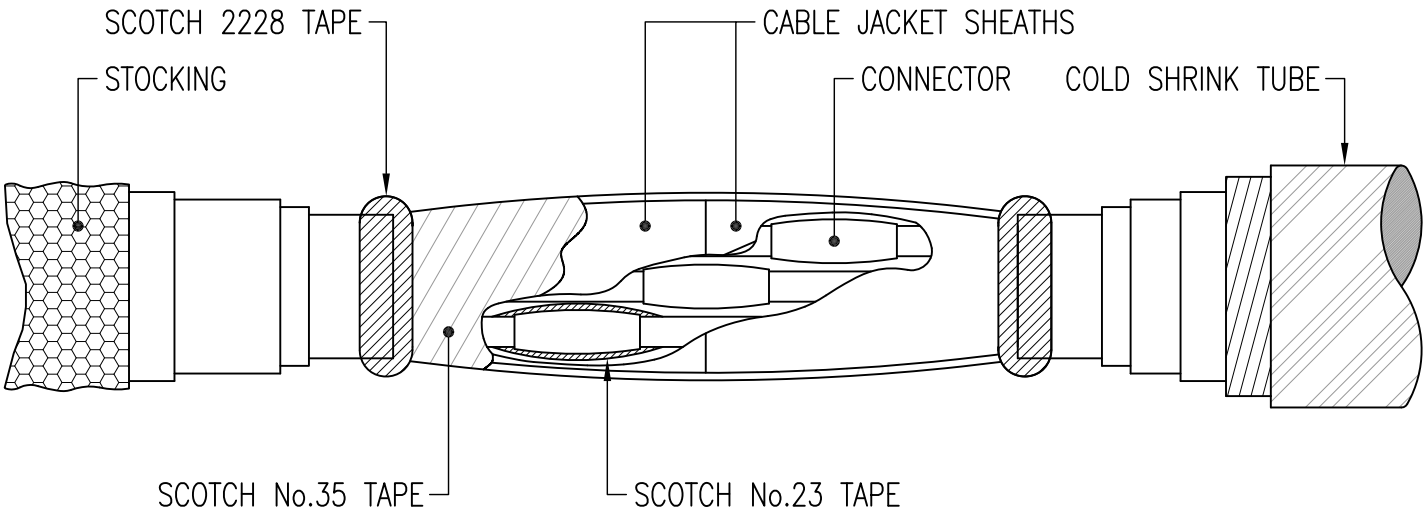
** NOTE:– ADJUST THE LENGTH OF 'C' ACCORDINGLY IF THERE IS NO LEAD SHEATH.

FIG.2



2.3 STAGGER CONDUCTORS TO ENSURE A SMOOTH PROFILE.

FIG.3



3.1 PARK COLDSHRINK TUBE/TUBES WHERE APPLICABLE, AND TINNED COPPER WIRE STOCKING ON TO CABLE.

3.2 INSTALL CONNECTORS, ENSURE CONNECTORS ARE STAGGERED, SMOOTH, DEBURR AND CLEAN CONNECTORS.

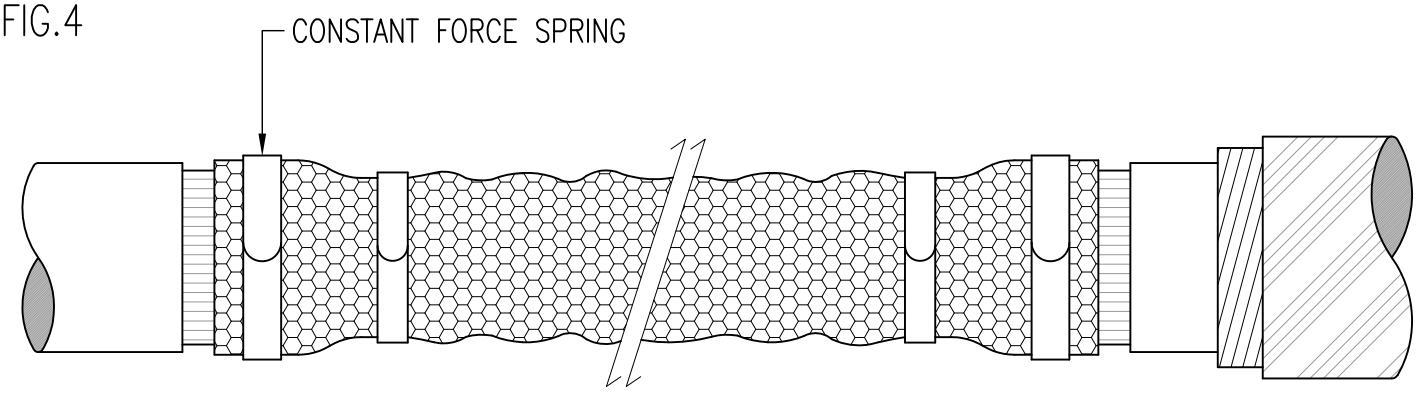
3.3 OVERTAPE EACH CONNECTOR WITH 5 HIGHLY STRETCHED HALF LAPPED LAYERS OF SCOTCH No.23 TAPE EXTENDING 5mm ON EACH SIDE OF THE CONNECTOR ON TO THE CONDUCTOR INSULATION.

3.4 SEAL CROTCH OF CABLE ON TO LEAD SHEATH WITH SCOTCH 2228 TAPE.

3.5 CUT THE PREVIOUSLY SAVED CABLE SHEATHS TO A SUITABLE LENGTH TO COVER ALL CONNECTIONS. REMOVE ANY CREASES IF NECESSARY AND SECURE WITH VINYL TAPE.

3.6 APPLY 2 HALF LAP LAYERS OF SCOTCH 35 OR OTHER VINYL TAPE (NOT SUPPLIED) FROM 2228 TO 2228 TAPES.

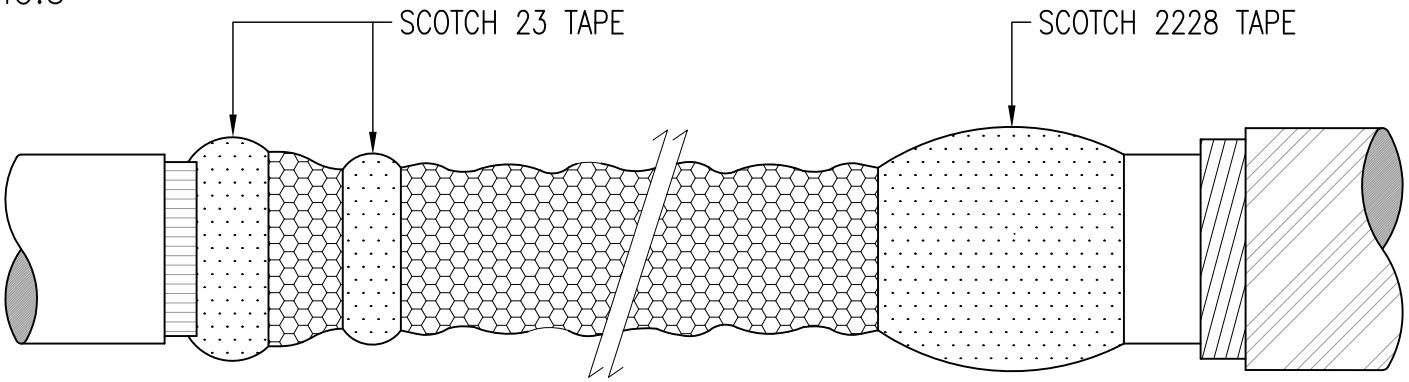
FIG.4



4.1 APPLY TINNED COPPER STOCKING ALONG THE LENGTH OF THE JOINT BY PULLING TIGHT FROM SWA TO SWA.

4.2 APPLY 4 CONSTANT FORCE SPRINGS AS SHOWN, ONE ON EACH WIRE ARMOUR AND ONE ON EACH LEAD SHEATH. CUT OF ANY EXCESS STOCKING.

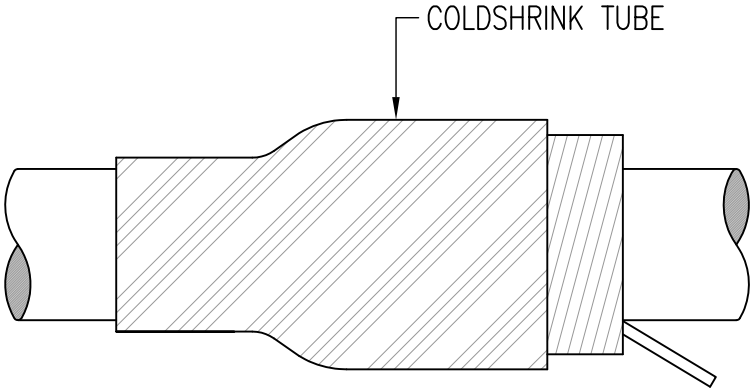
FIG.5



5.1 OVERTAPE CONSTANT FORCE SPRINGS WITH 2 STRETCHED HALF LAPPED LAYERS OF SCOTCH 23 TAPE ENSURING THE TAPING IS CARRIED OUT IN THE SAME DIRECTION AS THE SPRING.

5.2 WRAP THE SCOTCH 2228 TAPE, STRETCH TAPE TO APPROX. 3/4 OF ITS ORIGINAL WIDTH, STARTING AT THE CABLE OVERSHEATH COVERING THE CONSTANT FORCE SPRINGS AND SCOTCH 23 TAPE, ENSURING A SMOOTH PROFILE.

FIG.6



5.1 SHRINK DOWN OUTER PROTECTION COLDSHRINK TUBE(S) OVER THE COMPLETED JOINT, STARTING 50mm ON TO THE CABLE OVERSHEATH.
IF SHRINKING DOWN 2 OUTER PROTECTION COLDSHRINK TUBES, START AT THE CABLE OVERSHEATH POSITION AND SHRINK DOWN TOWARDS THE JOINT CENTRE.

5.2 APPLY OUTER PROTECTION COLDSHRINK TUBE BY UN-WINDING CORE ANTI-CLOCKWISE.