



# Hazard Area Joint & Termination Kits



CABLE JOINTS, CABLE TERMINATIONS, CABLE GLANDS, CABLE CLEATS  
FEEDER PILLARS, FUSE LINKS, ARC FLASH, CABLE ROLLERS, CUT-OUTS

11KV 33KV CABLE JOINTS & CABLE TERMINATIONS  
FURSE EARTHING  
[www.cablejoints.co.uk](http://www.cablejoints.co.uk)  
**Thorne and Derrick UK**

Tel 0044 191 490 1547 Fax 0044 191 477 5371  
Tel 0044 117 977 4647 Fax 0044 117 9775582

## Hazard Area Joint & Termination Kits

There is no room for compromise in the matter of safety where electricity and electrical installations are concerned. At 3M we make every effort to maximise your safety and installation reliability. You are working within a hazardous environment, so our aim is to reduce unnecessary complications during installation.

Our manufacturing and laboratory site is ISO 9001 certified and all products are rigorously tested to ensure compliance with European standards. We have a comprehensive traceability procedure for all our cable accessories. All kits include installation instructions which exceed European requirements, because your safety is important to 3M.



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## 3M™ Inline Joints for Hazardous Area Armoured Power Cables – Scotchcast™ LR Series Joints

In-line joints for Armoured PVC & XLPE Power cables - 0.6/1kV and up to 3.3kV - Hydro-Carbon Resistant/Flame Retardant Resin Encapsulated - For use in Petrochem Zones 1 & 2.

Also suitable for Lead sheathed cables, and Transition Joints.

Includes Scotchcast™ 1400U Resin that makes it suitable for areas where there is danger of gas, oil, sewage or chemical spillage.

| NOMINAL<br>CONDUCTOR<br>AREA (mm <sup>2</sup> ) | SINGLE<br>CORE<br>0.6/1KV | 2<br>CORE<br>0.6/1KV | 3<br>CORE<br>0.6/1KV | 4<br>CORE<br>0.6/1KV |
|-------------------------------------------------|---------------------------|----------------------|----------------------|----------------------|
| 1.5                                             | N/A                       | LR20                 | LR20                 | LR20                 |
| 2.5                                             | N/A                       | LR20                 | LR20                 | LR20                 |
| 4                                               | N/A                       | LR20                 | LR20                 | LR21                 |
| 6                                               | N/A                       | LR21                 | LR21                 | LR21                 |
| 10                                              | N/A                       | LR31                 | LR31                 | LR31                 |
| 16                                              | N/A                       | LR31                 | LR31                 | LR32                 |
| 25                                              | N/A                       | LR32                 | LR40                 | LR40                 |
| 35                                              | N/A                       | LR40                 | LR41                 | LR42                 |
| 50                                              | LR21                      | LR41                 | LR41                 | LR50                 |
| 70                                              | LR30                      | LR50                 | LR50                 | LR51                 |
| 95                                              | LR30                      | LR50                 | LR51                 | LR60                 |
| 120                                             | LR40                      | LR51                 | LR61                 | LR61                 |
| 150                                             | LR41                      | LR60                 | LR70                 | LR70                 |
| 185                                             | LR41                      | LR61                 | LR70                 | LR71                 |
| 240                                             | LR50                      | LR70                 | LR71                 | LR80                 |
| 300                                             | LR50                      | LR71                 | LR71                 | LR80                 |
| 400                                             | LR51                      | LR72                 | LR80                 | LR81                 |
| 500                                             | LR51                      | N/A                  | N/A                  | N/A                  |
| 630                                             | LR61                      | N/A                  | N/A                  | N/A                  |
| 800                                             | LR62                      | N/A                  | N/A                  | N/A                  |
| 1000                                            | LR72                      | N/A                  | N/A                  | N/A                  |

| SINGLE<br>CORE<br>1.9/3.3KV | 3<br>CORE<br>1.9/3.3KV |
|-----------------------------|------------------------|
| N/A                         | N/A                    |
| N/A                         | N/A                    |
| N/A                         | N/A                    |
| N/A                         | N/A                    |
| N/A                         | N/A                    |
| N/A                         | LR42                   |
| N/A                         | LR42                   |
| N/A                         | LR43                   |
| LR32                        | LR51                   |
| LR32                        | LR52                   |
| LR32                        | LR61                   |
| LR42                        | LR61                   |
| LR42                        | LR71                   |
| LR50                        | LR72                   |
| LR52                        | LR80                   |
| LR52                        | LR80                   |
| LR53                        | N/A                    |
| LR61                        | N/A                    |
| LR62                        | N/A                    |
| LR72                        | N/A                    |

### Additional Information

| Kit Ref | TO SUIT<br>CABLE DIAMETER |          | TO SUIT DIAMETER<br>OVER LEAD SHEATH |          | TO SUIT DIAMETER<br>OVER ARMOUR |          |
|---------|---------------------------|----------|--------------------------------------|----------|---------------------------------|----------|
|         | MIN (mm)                  | MAX (mm) | MIN(mm)                              | MAX (mm) | MIN (mm)                        | MAX (mm) |
| LR20    | 14                        | 32       | 9                                    | 15       | 9                               | 15       |
| LR21    | 14                        | 32       | 9                                    | 15       | 14                              | 22       |
| LR30    | 23                        | 37       | 9                                    | 15       | 14                              | 22       |
| LR31    | 23                        | 37       | 14                                   | 22       | 14                              | 22       |
| LR32    | 23                        | 37       | 14                                   | 22       | 18.5                            | 29       |
| LR40    | 28                        | 51       | 14                                   | 22       | 18.5                            | 29       |
| LR41    | 28                        | 51       | 18.5                                 | 29       | 18.5                            | 29       |
| LR42    | 28                        | 51       | 18.5                                 | 29       | 23.5                            | 37       |
| LR43    | 28                        | 51       | 23.5                                 | 37       | 23.5                            | 37       |
| LR50    | 33                        | 60       | 18.5                                 | 29       | 23.5                            | 37       |
| LR51    | 33                        | 60       | 23.5                                 | 37       | 23.5                            | 37       |
| LR52    | 33                        | 60       | 23.5                                 | 37       | 31                              | 50       |
| LR53    | 33                        | 60       | 31                                   | 50       | 31                              | 50       |
| LR60    | 48                        | 80       | 23.5                                 | 37       | 31                              | 50       |
| LR61    | 48                        | 80       | 31                                   | 50       | 31                              | 50       |
| LR62    | 48                        | 80       | 31                                   | 50       | 44                              | 70       |
| LR70    | 45                        | 90       | 31                                   | 50       | 31                              | 50       |
| LR71    | 45                        | 90       | 31                                   | 50       | 44                              | 70       |
| LR72    | 45                        | 90       | 44                                   | 70       | 44                              | 70       |
| LR80    | 45                        | 100      | 44                                   | 70       | 44                              | 70       |
| LR81    | 45                        | 100      | 44                                   | 70       | 58                              | 94       |



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# Hazard Area Joint & Termination Kits



## 3M™ In-Line Joints for Hazardous Area Un-armoured Power Cables - Scotchcast™ 92-U Series Joints

In-Line Joint for Un-Armoured PVC & XLPE Insulated Cables - 0.6/1kv Hydro-carbon resistant / Flame retardant Resin Encapsulated - for use in Petrochem Zones 1 & 2

Includes Scotchcast™ 1400U Resin that makes it suitable for areas where there is danger of gas, oil, sewage or chemical spillage.

| NOMINAL<br>CONDUCTOR<br>AREA (mm <sup>2</sup> ) | NBR<br>OF<br>CORES | KIT REF | CABLE<br>DIAMETER |          |
|-------------------------------------------------|--------------------|---------|-------------------|----------|
|                                                 |                    |         | Min (mm)          | Max (mm) |
| 1.5                                             | 2                  | 92-A1U  | 8                 | 26       |
|                                                 | 3                  | 92-A1U  |                   |          |
|                                                 | 4                  | 92-A1U  |                   |          |
| 2.5                                             | 2                  | 92-A1U  | 8                 | 26       |
|                                                 | 3                  | 92-A1U  |                   |          |
|                                                 | 4                  | 92-A1U  |                   |          |
| 4                                               | 2                  | 92-A1U  | 8                 | 26       |
|                                                 | 3                  | 92-A1U  |                   |          |
|                                                 | 4                  | 92-A2U  | 14                | 32       |
| 6                                               | 2                  | 92-A2U  | 14                | 32       |
|                                                 | 3                  | 92-A2U  |                   |          |
|                                                 | 4                  | 92-A2U  |                   |          |
| 10                                              | 2                  | 92-A2U  | 14                | 32       |
|                                                 | 3                  | 92-A2U  |                   |          |
|                                                 | 4                  | 92-A2U  |                   |          |
| 16                                              | 1                  | 92-A2U  | 14                | 32       |
|                                                 | 2                  | 92-A2U  |                   |          |
|                                                 | 3                  | 92-A3U  | 23                | 37       |
|                                                 | 4                  | 92-A3U  |                   |          |
| 25                                              | 1                  | 92-A2U  | 14                | 32       |
|                                                 | 2                  | 92-A2U  |                   |          |
|                                                 | 3                  | 92-A3U  | 23                | 37       |
|                                                 | 4                  | 92-A4U  | 28                | 51       |
| 35                                              | 1                  | 92-A2U  | 23                | 37       |
|                                                 | 2                  | 92-A3U  |                   |          |
|                                                 | 3                  | 92-A4U  | 28                | 51       |
|                                                 | 4                  | 92-A4U  |                   |          |
| 50                                              | 1                  | 92-A2U  | 14                | 32       |
|                                                 | 2                  | 92-A3U  | 23                | 37       |
|                                                 | 3                  | 92-A4U  | 28                | 51       |
|                                                 | 4                  | 92-A4U  |                   |          |

| NOMINAL<br>CONDUCTOR<br>AREA (mm <sup>2</sup> ) | NBR<br>OF<br>CORES | KIT REF | CABLE<br>DIAMETER |          |
|-------------------------------------------------|--------------------|---------|-------------------|----------|
|                                                 |                    |         | Min (mm)          | Max (mm) |
| 70                                              | 1                  | 92-A2U  | 14                | 32       |
|                                                 | 2                  | 92-A4U  | 28                | 51       |
|                                                 | 3                  | 92-A5U  | 33                | 60       |
|                                                 | 4                  | 92-A5U  |                   |          |
| 95                                              | 1                  | 92-A2U  | 14                | 32       |
|                                                 | 2                  | 92-A4U  | 28                | 51       |
|                                                 | 3                  | 92-A5U  | 33                | 60       |
|                                                 | 4                  | 92-A5U  |                   |          |
| 120                                             | 1                  | 92-A3U  | 23                | 37       |
|                                                 | 2                  | 92-A5U  | 33                | 60       |
|                                                 | 3                  | 92-A5U  |                   |          |
|                                                 | 4                  | 92-A5U  |                   |          |
| 150                                             | 1                  | 92-A3U  | 23                | 37       |
|                                                 | 2                  | 92-A5U  | 33                | 60       |
|                                                 | 3                  | 92-A6U  | 48                | 80       |
|                                                 | 4                  | 92-A6U  |                   |          |
| 185                                             | 1                  | 92-A3U  | 23                | 37       |
|                                                 | 2                  | 92-A5U  | 33                | 60       |
|                                                 | 3                  | 92-A6U  | 48                | 80       |
|                                                 | 4                  | 92-A6U  |                   |          |
| 240                                             | 1                  | 92-A4U  | 28                | 51       |
|                                                 | 2                  | 92-A6U  | 48                | 80       |
|                                                 | 3                  | 92-A6U  |                   |          |
|                                                 | 4                  | 92-A7U  | 45                | 90       |
| 300                                             | 1                  | 92-A4U  | 28                | 51       |
|                                                 | 2                  | 92-A6U  | 48                | 80       |
|                                                 | 3                  | 92-A7U  | 45                | 90       |
|                                                 | 4                  | 92-A7U  |                   |          |
| 400                                             | 1                  | 92-A4U  | 28                | 51       |
|                                                 | 2                  | 92-A7U  | 45                | 90       |
|                                                 | 3                  | 92-A7U  |                   |          |
| 500                                             | 1                  | 92-A5U  | 33                | 60       |
| 630                                             | 1                  | 92-A5U  | 33                | 60       |
| 800                                             | 1                  | 92-A6U  | 48                | 80       |
| 1000                                            | 1                  | 92-A6U  | 48                | 80       |

Note: These kits do not include armour continuity

| No. of<br>Cores | KIT REF | CABLE<br>SIZE |     |
|-----------------|---------|---------------|-----|
|                 |         | min           | max |
| 2 to 6          | CR2     | 14            | 32  |
| 7 to 12         | CR3     | 23            | 37  |
| 14 to 21        | CR4     | 28            | 51  |
| 24 to 37        | CR5     | 33            | 60  |

## 3M™ LV Inline Joints for Hazardous Area Control Cables - Scotchcast™ CR Series

In-line joints for 0.6/1kV XLPE & PVC Insulated, Lead sheathed Control cables - Hydro-Carbon Resistant/Flame Retardant Resin Encapsulated - For use in Petrochem Zones 1 & 2

For Conductor Sizes: 1.5mm<sup>2</sup> and 2.5mm<sup>2</sup>

Includes Scotchcast™ 1400U Resin that makes it suitable for areas where there is danger of gas, oil, sewage or chemical spillage.



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Management

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Connectors

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Cable & Fault  
Locators & Electronic  
Marker Systems

| No. of Cores | KIT REF | CABLE SIZE |     |
|--------------|---------|------------|-----|
|              |         | min        | max |
| 1            | IR20    | 14         | 32  |
| 2            | IR21    | 14         | 32  |
| 5            | IR30    | 23         | 37  |
| 10           | IR40    | 28         | 51  |
| 15           | IR50    | 33         | 60  |
| 20           | IR51    | 33         | 60  |
| 30           | IR60    | 48         | 80  |
| 50           | IR61    | 48         | 80  |

### 3M™ LV Inline Joints for Hazardous Area Instrumentation Cables – Scotchcast™ IR Series

In-line joints for 0.6/1kV Polyethylene Insulated, Lead sheathed, Armoured Instrumentation cables - Hydro-Carbon Resistant/Flame Retardant Resin Encapsulated -For use in Petrochem Zones 1 & 2.

For Conductor Sizes: 0.5mm<sup>2</sup> solid, 0.5mm<sup>2</sup> Flexible, 1.0mm<sup>2</sup> solid, or 1.5mm<sup>2</sup> stranded conductors.

Suitable for cables with either unscreened pairs, individually screened pairs, collectively screened pairs, or individually and collectively screened pairs.

Includes Scotchcast™ 1400U Resin that makes it suitable for areas where there is danger of gas, oil, sewage or chemical spillage.



### 3M™ In-Line Joints for Mines & Quarries - Power, and Signal & Telephone Cables

In Line Joints for Power unscreened cables rated up to & including 3.3kV, and Signal & Telephone Cables.

Includes Scotchcast™ 1400U Resin that makes it suitable for areas where there is danger of gas, oil, sewage or chemical spillage.

Simple combined earth screen and armour continuity system, Fire resistant, Moisture proof, Approved by UK Coal.

| Nominal Conductor Area mm <sup>2</sup> |        |     | 1.5 | 2.5 | 4  | 6  | 10 | 16 | 25 | 35 | 50 | 70 | 95 | 120 | 150 | 185 |
|----------------------------------------|--------|-----|-----|-----|----|----|----|----|----|----|----|----|----|-----|-----|-----|
| 0.6/1KV Unscreened<br>NCB SPEC. 295    | 2 CORE | SWA | L1  | L1  | L1 | L2 | L2 | L2 |    |    |    |    |    |     |     |     |
|                                        | 3      | SWA | L1  | L1  | L2 | L2 | L2 | L3 | L3 | L4 | L4 | L5 | L5 | L6  | L6  |     |
|                                        | 3 CORE | DWA | L2  | L2  | L3 | L3 | L4 |    |    |    |    |    |    |     |     |     |
|                                        | 4      | SWA | L1  | L1  | L2 | L2 | L2 | L3 | L4 | L4 | L5 | L5 | L5 | L6  | L6  |     |
| 3.3KV Unscreened<br>NCB SPEC. 295      | CORE   | DWA | L2  | L3  | L3 | L4 | L4 |    |    |    |    |    |    |     |     |     |
|                                        | 3      | SWA |     |     |    |    |    |    |    |    | L5 | L5 | L5 | L6  | L6  | L6  |
|                                        | CORE   | DWA |     |     |    |    |    |    |    |    | L5 | L5 | L5 | L6  | L6  | L6  |

| Number of pairs                   |     |  | 1  | 2  | 4  | 7  | 10 | 12 | 19 | 27 | 30 | 37 | 46 | 61 | 91 |
|-----------------------------------|-----|--|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Telephone Cables<br>NCB SPEC. 492 | SWA |  | T1 | T1 | T2 | T2 | T3 | T3 | T4 | T5 | T5 | T5 | T5 | T5 | T6 |
|                                   | DWA |  | T2 | T2 | T2 | T3 | T3 | T3 | T4 | T5 | T5 | T5 | T5 | T5 | T6 |

| Number of pairs                    |     |  | 2  | 4  | 7  | 10 | 12 | 19 | 37 | 46 | 61 | 91 |
|------------------------------------|-----|--|----|----|----|----|----|----|----|----|----|----|
| Signalling Cables<br>NCB SPEC. 493 | SWA |  | T1 | T1 | T2 | T2 | T2 | T3 | T4 | T5 | T5 |    |
|                                    | DWA |  | T2 | T2 | T2 | T2 | T3 | T3 | T4 | T5 | T5 |    |

| Part Number | Application Range CSA     |
|-------------|---------------------------|
| 92-AV612-3  | 70 – 95 mm <sup>2</sup>   |
| 92-AV622-3  | 120 – 185mm <sup>2</sup>  |
| 92-AV642-3  | 240 – 400 mm <sup>2</sup> |

### 3M™ QS1000 Inline Joints for Mines & Quarries – 3 Core Screened Power Cables rated 6.6/11kV

Cold Shrink One piece silicone splice body, encapsulated using Scotchcast™ 1400U Resin that makes it suitable for areas where there is danger of gas, oil, sewage or chemical spillage. Mechanical connectors are included.

Fire resistant, Moisture proof, Approved by UK Coal.



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