

LV Resin Cable Joints - Low Smoke Zero Halogen

suitable for PVC or XLPE cable, 1kV





Distinguished by its yellow-tinted injection-moulded shells, CTL's range of Low Smoke Zero Halogen cable joints has been especially developed to meet the increasing demand for joints that match the characteristics of modern flame retardant, fire resistant and low smoke cables.

To reflect the specialist application, these joints can be installed without the need for dedicated tools or the application of heat.

All of the popular and well-established features of standard CTL joints have been retained. Internationally, there are several standards that regulate fire behaviour. CTL products conform to the following national standards:-

UK:- BS 476 Part 7, Class 1Y rating. Germany:- DIN 4102/part 1, B1 rating. France:- NFP 92 501, 5 & 16, M2

rating.

A typical kit consists of an outer shell manufactured from UV stable, low smoke, zero halogen, flame retardant material that matches or exceeds the relevant properties of similarly specified cable.

For the majority of applications it is only the shell that requires specialist fire-sensitive properties. In these cases CTL's standard two-part polyurethane resin is supplied in easy-mix pouches.

When specifications call for the resin to also be flame retardant,

halogen-free and low smoke, joints are shipped with CTL's CR171H resin which is flame retardent to V0 rating of UL94.



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| Specifications - CTL Low Smoke Zero Halogen cable joints | | | |
|--|------------------------|--------------------------|--|
| Properties of shell | Rating | Relevant standard | |
| Flammability | | | |
| Flame retardant | | | |
| Flame class rating: 3mm | V-0 | UL94 | |
| Flame class rating: 1mm | V-2 | UL94 | |
| Glow wire test, 1 mm, 850 °C | Pass | IEC 695-2-1 | |
| Low Smoke | | | |
| Smoke density 4 min | Dm < 200 | AIRBUS Standard ABD 0031 | |
| Halogens | Free | DIN VDE 472 part 815 | |
| Mechanical | | | |
| Tensile strength at yield (speed 50mm/min) | 63 Mpa | ISO 527, DIN 53455 | |
| Impact | | | |
| Charpy Impact, notched | 30 kJ/m ² | ISO 179/2C | |
| Thermal | | | |
| Thermal conductivity | 0.20 W/m °C | DIN 52612 | |
| Electrical | | | |
| Dielectric strength | 17kV/mm | IEC 243, ASTMD 149 | |
| Volume resistivity | 10 ¹⁵ Ohm.m | IEC 93, DIN53482 | |
| Surface resistivity | 10 ¹⁵ Ohm | IEC 93, DIN53482 | |
| Properties of resin type CR171H | | | |
| Flammability - Flame class rating: 6mm | V-0 | UL94 | |
| Physical properties | | | |
| Operating temperature | -40° C to +105° C | | |
| Thermal conductivity | 0.75 W/mK | | |
| Shrinkage | Low | | |
| Coefficient of linear expansion | Low | | |
| Electrical properties | | | |
| Volume resistivity | 11 - 13 log Ohm | | |
| Surface resistivity | 12 - 14 log Ohm | | |
| Electric strength | > 16 MV/m | | |
| Permittivity | 3.2 @ 1 KHz | | |

| Main Cable 2, 3 & 4 core (mm²) | Branch Cable 2,3 & 4 core (mm²) | Part No |
|-----------------------------------|------------------------------------|------------|
| Straight Joints | | |
| 1.5, 2.5, 4, 6 | | CM0LSHF |
| 10, 16 | | CM1LSHF |
| 25 | | CM2LSHF |
| 35, 50, 70 | | CM3LSHF |
| 95, 120 | | CM4LSHF |
| 150, 185 | | CM6-07LSHF |
| 240, 300 | | CM6-08LSHF |
| 400 | | CM7-08LSHF |
| Branch Joints | | |
| 1.5, 2.5, 4, 6, 10 | 1.5, 2.5, 4, 6, 10 | CB1LSHF |
| 16, 25, 35 | 16, 25, 35 | CB2LSHF |
| | | |

Accessories

- Brass connectors with Allen head screws for Cu or Al conductors.
- Aluminium alloy connectors with shear-head bolts & brass gauze for Cu or Al conductors b)
- Copper or aluminium crimp ferrules









See page 17 for cable clamps, troughs and "J" hooks especially designed for the rail industry.

