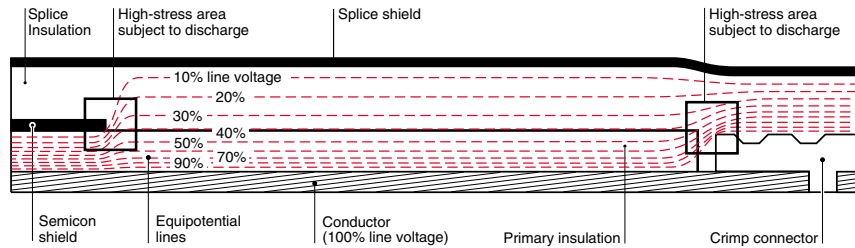


### Cable splice without stress control

The figure below shows a computer-simulated plot of electrical stress in a splice without stress control. Areas of high stress exist near the edge of the semi-con and connector as shown by the concentrations of equipotential lines. These high stresses must be lowered to prevent premature insulation damage and splice failures.



57

### Cable splice with stress control system

Tyco Electronics' stress control system controls the distribution of the electrical field in the splice. The equipotential lines are distributed uniformly, reducing the stresses within the splice to levels required for longer service life. This is achieved by the unique resistive and capacitive properties of the heat-shrinkable tubing and stress relief material (SRM).

The stress control materials reduce stress through their electrical properties rather than the geometry of the splice or correct positioning of a Faraday cage. Stress cone buildup is diminished, resulting in a slim, compact splice and significantly decreasing splice installation time.

