

# Riveted Contact Assemblies

As one of the more traditional methods of contact attachment, this process is still widely used, due to its unique advantages. The increased use of bimetal and trimetal rivets in which copper replaces more expensive alloys while still providing a high level of electrical and thermal conductivity has assured that this production method is still used by many companies today.

An additional feature of the riveting process is that one can attach a contact to a very thin carrier using a mechanical bond. This has an advantage over welding, as welding can change the characteristics of thin strip, where heat is applied.

Production quantities can vary from a few hundred items with moderate set-up costs up to quantities of a million and more with the latest automatic-insertion techniques. It is a flexible process in which the contact material can readily be changed and also, with certain limitations, the size of contact employed.

A further advantage is that the rivets can be pre-plated e.g. with silver or gold, prior to insertion, ensuring that expensive plating materials are only where the customer requires them.

Solid rivets can be produced from all wrought silver alloys such as silver, silver-copper, silver-nickel, silver-cadmium oxide, silver-tin oxide etc. They can also be produced in gold, platinum, palladium and their alloys.

Bimetal rivets can be produced in all the silver-alloys as above for solid rivets. They can also be produced from gold-based alloys but not platinum or palladium.

The dimensions of the rivet shanks are of particular importance to ensure that the maximum electrical and thermal conductivities are obtained in the final assembly by good all-round contact between the rivet and the contact arm.