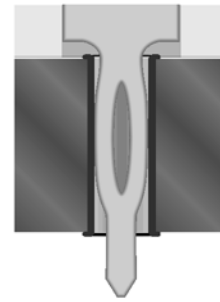




ERmet® 2mm Hard Metric Connectors

Compliant Pressfit Pins

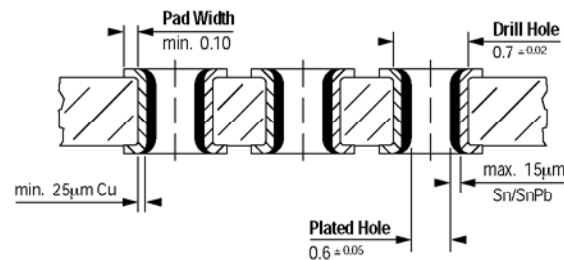
The ERmet 2mm HM connector line utilizes the proven pressfit assembly method. This design was chosen because it is an efficient assembly method that offers a number of benefits over soldering including higher reliability, easier inspection and repair, and easier installation. In addition, the pressfit method avoids exposing the high layer count printed circuit boards (PCBs) to the additional thermal stress of soldering.



Design Requirements For Printed Circuit Boards

Plated Through-hole For Pressfitting Signal Contacts, Power Contacts And Shielding Contacts

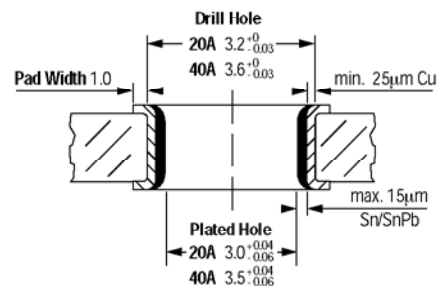
All ERmet 5+2 row and 8+2 row signal contacts are pressfit. In addition, the bladed ERmet power connectors are also pressfit and share the same board plated hole requirements as the male and female signal connectors. The ERmet 2mm HM Connectors have been used successfully with reflowed tin-lead, plated tin-lead, immersion tin, organic coatings over bare copper and immersion gold hole plating regimes. The hole recommendations and press in force information shown in this catalog are for reflowed tin-lead and plated tin-lead. Additional test data for other hole plating regimes are available through customer service.



Plated Through-hole For Pressfitting High-current Contacts (Special Contacts For Modules L, M And N)

The ERmet Type L, M and N connectors have provisions for high frequency coaxial and high current circular contacts. These contacts have a variety of different plated through-hole requirements. For these, please consult ERNI Customer Service.

However, ERNI does offer both 20 Amp and 40 Amp high power pressfit contacts for the L, M, and N connectors, which have the specific plated through-hole requirements shown to the right.



Maximum Circuit Density

The dense ERmet 2.0 mm grid spacing utilizes a 0.6 mm plated through via. This via diameter, together with an appropriate plated annular ring, leaves a 1.0 mm minimum space between adjacent annular rings for trace routing. This space allows for either two equally spaced conductor traces of 0.2 mm (.008") wide or three equally spaced conductors 0.14 mm (.006") wide, as shown in the drawing to the right. This layout can be used to bus two or three rows of the connector on each layer respectively. Many designers bus each row on a separate layer with a ground or power layer between for best signal integrity.

