



Positronic Industries
white paper

The Next Evolution In Compliant Technology. Fully Compliant, Fully Reliable.



POSITRONIC INDUSTRIES, INC.

423 N Campbell Avenue
PO Box 8247
Springfield, MO 65801
Toll Free (800) 641-4054
Telephone (417) 866-2322
Fax (417) 866-4115
info@connectpositronic.com



POSITRONIC INDUSTRIES, S.A.S.

Zone Industrielle d'Engachies
46 Route d'Engachies
France 32020 Auch Cedex
Telephone 33 5 62 63 44 91
Fax 33 5 62 63 51 17
contact@connectpositronic.com

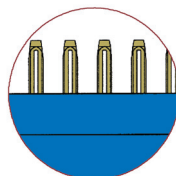


POSITRONIC ASIA PTE LTD.

3014A Ubi Road 1 #07-01
Singapore 408703
Telephone (65) 6842 1419
Fax (65) 6842 1421
singapore@connectpositronic.com

Reliable, solderless connections from connectors to backplanes started with solid press-fit technology. Although these are still used today, concerns about board damage led to the use of compliant press-fit technology. This technology allows the connection to be made through compliance of the contact termination along with printed circuit board hole deformation. Although risk of damaged printed circuit boards and backplanes is lessened, damage can still occur due to relatively high insertion and extraction forces. The next step in press-fit technology is a highly reliable connection between the contact termination and backplane that is accomplished with reduced insertion and extraction forces. This eliminates risk of printed circuit board and backplane damage. This technology exists today with Positronic's Bi-Spring Power Press-Fit termination.

- The relatively low insertion and extraction forces of Bi-Spring Power Press-Fit contacts do not produce stresses in printed circuit boards and backplanes that can occur with higher insertion forces. These stresses can cause board warpage and hole damage. Average insertion and extraction forces of size 16 contacts are 22 N [5 lbs.] per contact. Average insertion and extraction forces of size 12 contacts are 133 N [30 lbs.] per contact.
- Connector systems utilizing Bi-Spring terminations use mounting screws to secure the connector to the printed circuit board or backplane. Stresses that occur during coupling, uncoupling or shock and vibration of systems are not transferred to the printed circuit boards or backplanes through the press-fit connection. The electrical integrity of the connector to board interface is maintained; this is particularly important in power applications. Bellcore GR1217 details a preference for mounting hardware when using press-fit terminations.
- Size 16 Bi-Spring terminations are designed to meet the performance requirements and hole diameters as listed in the internationally recognized specification IEC60352-5.
- Lower insertion and extraction forces eliminate the need for expensive pressing equipment.



Bi-Spring Power Press-Fit Compliant Terminations

