Connector Has Multiple Mismating Preventive Features

MDT Staff

Hirose Electric, a leader in the development of innovative connector solutions, has developed the DF60 Series, a board-to-wire connector with the capacity to handle up to 40 amps. The rugged DF60 Series connector features a highly reliable five-point contact design with independent contact springs, a center lock with a clear tactile ‘click’ to ensure secure mating and prevent against half-locking and uneven side-locking, and guards designed into the connector body prevent cable snaring. The center lock helps to save precious PCB space and allows this connector to aid in high density mating.

Available in three different connection styles, straight, right angle, and in-line. The DF60 Series utilizes three lower contact points that are separated and individually deflect while being mated. Each of these contact points follow the flat surface of the male contact, which is contrary to the conventional type of connector contact where points reside on the same plane.

“The rugged and reliable DF60 Series wire-to-board connector combines small size and high current capacity with user-friendly operation. The DF60 Series is resistant to high vibrations and prevents insufficient mating via a center lock that significantly improves overall mating operation,” said Rick van Weezel, vice president of sales and marketing for Hirose Electric USA.

The DF60 also features quick and easy assembly operations. The crimp contacts do not have an exposed retention lance on the terminal, but are retained by a lance that is molded inside the plug housing itself. The external center lock on the plug housing features guards on each side of the lock. These features prevent terminated wires from becoming tangled together due to an exposed lance on the contacts. The guards on the housing also help to prevent tangles on the plug assemblies. The DF60 Series has a lance strength of 49 N and an inertial lock force

of 98 N.

The RoHS-compliant DF60 Series has a rated voltage of 1000 V AC/DC and can withstand 3000 V AC for 1 minute. Wire conductor sizes range from AWG #8 to #12 and can handle up to 30 insertion/withdrawal cycles.

Designed for robotics, automotive, power conditioning, medical, and data center server applications, the new DF60 Series connector solves a number of design and engineering concerns, particularly if reliability and space savings are required.

For more information, visit: www.hiroseusa.com [1].

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