

## Enhanced ratings for KA connectors

Following rigorous testing at Smiths Interconnect's Center of Excellence laboratory in Kansas City, KS, we are able to confirm our products' superior capabilities and proven suitability for a wide range of applications in harsh environments where failure is not an option – such as in the military, aerospace and commercial aviation markets.

### Current Ratings

The KA Series contacts have a rating of 4 Amps each. While more than adequate for most applications, the new current carrying capability tests prove how conservative that rating was for individual or groups of contacts, confirming that, for example:

- 1 KA contact can handle 9 Amps
- 2 adjacent contacts can take 6.5 Amps each
- Even a set of 4 adjacent contacts can each comfortably carry 5.4 Amps
- All with less than a 30°C rise.

These 0.6mm contacts are able to handle far greater current without detrimental temperature rises, so our customers can confidently incorporate all their processing needs in one connector for reductions in overall system footprint, cost and complexity.

### Shock and Vibration

The KA Series has previously tested to Military (MIL-DTL-55302) specifications, and now we have further tested them for shock and vibration to the even more rigorous European Space Agency (ESCC 3401) standards.

The results demonstrate that, even under the most extreme duress, our KA connectors are immune to failure due to high shock & vibration environments.

### The Innovation Advantage

The impressive power-to-size ratio and ruggedness are made possible thanks to Smiths Interconnect's patented Hypertac® hyperboloid contact design. Its unique 'basket of wires' configuration gives these connectors a smooth and self-wiping insertion/extraction path and ensures the contact area extends 360° around the pin and uniformly down its length. This maximizes and stabilizes the contact area, which significantly reduces the risk of interruption that can occur in standard cantilevered beam designs.

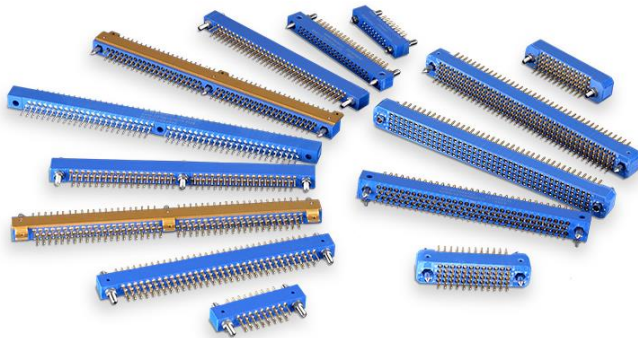
It also reduces resistance significantly over conventional contacts, allowing for more current to be carried through similar size contacts. This also results in a lower voltage drop across the connector, reducing the power consumption and associated heat generation within the system which could affect the integrity of the connector's insulator and/or contacts on the PC board.

Furthermore, the low mass and resultant low inertia of the wires enable them to follow the most abrupt or extreme excursions of the pin without loss of contact, while the three-dimensional

symmetry of the Hypertac contact design guarantees electrical continuity no matter how demanding the conditions.

This design is also what contains the insertion/extraction force to an average of 1oz per contact in tests, and increases our connectors' mating cycle life rating by 10-fold that of competitive products. The widely recognized technological superiority and flexibility of the KA Series has long enabled it to provide a significant edge in military, aerospace and commercial aviation applications.

Now, with these enhanced ratings, we have demonstrated its suitability for even the most demanding of future operating environments where performance, safety and reliability are essential.



## About Smiths Interconnect

Smiths Interconnect is a leading provider of high reliability connectivity products and solutions serving segments of aerospace and defence, medical, semiconductor test, and industrial markets. It designs and manufactures technically differentiated electronic components, microwave, optical and radio frequency products and sub-systems that connect, protect and control critical applications. Smiths Interconnect is part of Smiths Group plc. For more information visit

[www.smithsinterconnect.com](http://www.smithsinterconnect.com).

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