

FILCONN

A Hermetic Solutions Group Company

TECHNOLOGY
CUSTOM
CONNECTOR

IN ADDITION TO OFFERING FILTER CONNECTORS AND TRANSIENT PROTECTED PRODUCTS, **FILCONN, INC.** ALSO OFFERS A WIDE ARRAY OF CUSTOM CONNECTOR PRODUCTS. OUR ENGINEERS HAVE THE KNOWLEDGE AND TOOLS NECESSARY TO DESIGN CUSTOM CONNECTOR PRODUCTS THAT MEET SPECIFIC CUSTOMER NEEDS.



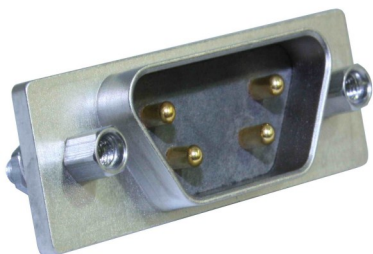
FIGURE 1

HIGH FREQUENCY SHIELDED TWISTED PAIR
CONNECTOR DESIGN

THE KEY TO A SUCCESSFUL CUSTOM CONNECTOR DESIGN IS **COLLABORATION** BETWEEN THE PRODUCT DESIGN ENGINEERS AND THE END USER. THE PRODUCT SHOWN IN *FIGURE 1* IS A PERFECT EXAMPLE OF WHAT HAPPENS WHEN THIS COLLABORATION WORKS. THIS CUSTOMER HAD A VERY **TIGHT SPACE CONSTRAINT** AND A **SENSITIVE DIFFERENTIAL SIGNAL**. THE EXISTING PRODUCT WAS PRODUCING UNACCEPTABLE LOSSES AT THE CONNECTOR JUNCTIONS DUE TO UNMATCHED IMPEDANCE. WE WERE ASKED TO DEVELOP A PRODUCT FROM SCRATCH WHICH MAINTAINED THE IMPEDANCE AND THE DIFFERENTIAL SIGNAL THROUGH THE CONNECTOR JUNCTIONS. THE RESULT IS A **HIGH TEMPERATURE/HIGH PRESSURE** CUSTOM CONNECTOR PRODUCT THAT WAS BORN OUT OF A **COLLABORATIVE EFFORT** BETWEEN **FILCONN** DESIGN ENGINEERS AND THE CUSTOMERS DESIGN ENGINEERS. THE PRODUCT WAS FIELD TESTED IN 2008 AND **APPROVED** IN EARLY 2009.

IF YOU HAVE A
UNIQUE REQUIRE-
MENT, CALL TO DIS-
CUSS OPTIONS WITH
AN ENGINEER!

IN ADDITION TO CIRCULAR CUSTOM CONNECTORS, **FILCONN, INC.** CAN ALSO DESIGN CUSTOM MICRO-D (MIL-C-83513) CONNECTOR PACKAGES. THE CONNECTOR ON THE LEFT IS AN EXAMPLE OF AN 83513 DERIVATIVE PROJECT. THE CUSTOMER HAD HIGH CURRENT RATING REQUIREMENTS WHICH REQUIRED LARGER CONTACTS THAN ALLOWED BY THE 83513 MIL SPEC. THE CUSTOMER ALSO HAD A TIGHT SPACE CONSTRAINT WHICH DROVE THE DESIGN TO A MICRO-D CONNECTOR.



THE D38999/20 FILTER CONNECTOR SHOWN HERE HAS **FOUR STANDOFF PADS** THAT PRECISELY LOCATE THE PCB AND PROVIDE GROUNDING AND TAPPED HOLES FOR THE BOARD. THERE IS ALSO A SMALL "WASHOUT" AREA BETWEEN THE CONNECTOR AND PCB FOR CLEANING.



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TEL: 480.222.3565

EMAIL: SALES@FILCONN.COM

WWW.FILCONN.COM