

Minneapolis, Minnesota.

Omnetics SureCon 360 Connectors Conserve Space with IP67 Nano-sized Connectors

Watertight nano-connectors pass shock, vibration and immersion testing

Many of the world's smallest and ruggedized ultra-miniature circular connectors are used within medical, commercial and military applications that require the best electrical performance for portable and miniature electronics. To ensure integrity, Omnetics used gold plated contacts that are polarized and shrouded by our



unique liquid crystal polymer insulators. The over-molded shells were specifically designed to assist in pre-mating alignment, as well as, hold the connectors securely in place to guarantee a water-tight seal. The cable jackets, strain relief system and cable surfaces are specifically designed to have a good tactile feel and maintain flexibility while providing a secure grip. Connector insulator sizes of 6, 11, and 16 positions are available with cables pre-attached. Connector body formats include in-line and protruding panel mount shells. Custom wire or cable designs are available as well as custom over-molded handles, and shapes to meet a designer's specific applications. See available design

shapes and sizes at

<http://omnetics.com/uploads/Documents/NanoCircularBreakOut.pdf>

The new SureCon 360 connectors are designed with pin and socket elements positioned on 25 one-thousandths of an inch spacing to reduce size and weight by as much as 3 times that of the conventional micro-sized circular connectors. Typically, the installed wiring is thirty-two gauge standard Teflon® insulated copper wire and can carry up to 1 ampere of current per line.

Nano-circular connector use is rapidly expanding as chip voltage and current ratings are downsizing.

Applications range in the military sector from portable equipment on foot-soldiers and unmanned aerial vehicles to medical probes, sensors, and detectors. These kinds of applications prefer the smaller connectors on the cables, which are then routed to other tactical or measurement equipment. Robotics and prosthetic devices also utilize the nano-sized connectors in-line at key joint and bending positions to assist in signal transmission as well as allow quick repair and replacement of the extended portions of the instrument. SureCon offers designs, using high-speed cable that includes shielding and drain wire systems, similar to surfire® cabling, to help reduce EMI and provide better transmission of differential signal pairs used in fast transfer of digital images.

The custom designer can also benefit from Omnetics' Solid Works® design service to receive customized images to fit his application specific needs. Our goal is to return the new design to you in two days. Please see our website at: www.omnetics.com

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