

Omnetics Circular Connectors Offer Both Micro and Nano Interconnects for Highly Portable Electronic Systems, Meeting the Needs of Designers Looking for Size Reduction Options and Cable Flexibility

Wide range of circular connector sizes and styles provide options for custom design cables.

New-generation electronic designs are focused on rugged performance while being highly portable and light weight. Simultaneously, circuitry is increasing the number of functions it performs and the processing speed to which it performs at. Connecting cables from the active elements in both medical electronics and military equipment, such as cameras or detectors, must be small, flexible and light weight. Omnetics' micro-circular and nano-circular connectors include custom cable designs for high quality signal and EMI protection. See details at www.omnetics.com



Designers find a significant advantage in size reduction and cable flexibility when using the Omnetics miniaturized circular connectors and cables. The circular connectors use the Omnetics' proprietary spring-pin system (Flex-Pin) that is also used in both nano connectors (.025 in. pitch) and the micro connectors (.050 in pitch) that are QPL approved for MIL-DTL-32139 and MIL-DTL-83513. Special nickel and gold plating of the mating elements provide reliable performance for more than 2,000 mates and de-mates per connector. Shell and housing designs are available in a number of options consisting of inline, front, rear as well as protruding panel mount configurations. Mating options include: Twist Lock (BNC type), threaded and even new break-away formats. Over molded back shells and cable strain reliefs can be easily designed to match unique applications. Pin counts are available up to 27 positions for the micro-circular line and up to 28 positions in the nano-circular series. Omnetics' new "SureCon" series offers contact arrangements of 6, 11 and 16 positions, offering a water-tight seal for applications demanding certification of immersion for up to 1 meter for 30 minutes, often stated in IP-67 standards.

Applications using Omnetics' micro and nano-circular connectors span a wide range from medical instrumentation to portable ruggedized modules within the military and aerospace industry. Both micro and nano-miniature circular connector insulator formats are being designed for built-in applications. These days, personal protective equipment worn by public services and military personal often need audio/video as well as other detection systems mounted onto or physically in their protective suits. Robotics and prosthetic devices as well use micro and nano-sized connectors' in-line at key joint and bending positions to assist in signal transmission, as well as to allow quick repair and replacement of the extended portions of the instrument.

Customers can purchase Standard and COTs configurations, or design something custom to fit specifically into their own product. Alignment keys are built into each insulator systems to provide positive alignment during mating. Tail terminations are available pre-wired, cabled, solder cup, and thru-hole. For more information please see our website; www.omnetics.com

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