

# OMNETICS NEWS

## OMNETICS RELEASES NANO 360™

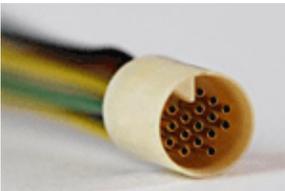


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### The Standard Series



### The Threaded Series



### The Breakaway Series



After some time on the market, Omnetics Connector Corporation has officially released Nano 360™. At .025" pitch, these are the smallest mil-aero circular connectors on the market. Compared to larger circular configurations, we have reduced the size and weight by as much as 3x compared to standard .050" pitch circular connectors.

Within this product family we have included 3 distinct, yet similar groups of connectors ranging in contacts from 1 to 28 pins/sockets, with the standard shell sizes being: 6, 11, 16 and 28

#### **The Standard (NCP/NCS) Series:**

The Standard Series like all 3 utilizes Omnetics' rugged and reliable Flex-Pin contact system. Spaced on 25 mil centerlines, these connectors are the smallest Mil-Quality circulars available today. Extremely small outer diameters range from .122" (3.1 mm) to .217" (5.5 mm). With the ability to withstand high shock and vibration while maintaining their electrical integrity, these connectors are ideal for the most demanding applications.

#### **The Threaded (MNCP/MNCS) Series:**

Omnetics nano series of circular connectors are available with threaded metal housings giving them a positive lock and environmental seal. These are the smallest Mil-Quality circulars available today. They are ideal for the most demanding applications where size and weight are critical. These connectors can be configured with different levels of waterproof sealing up to IP-67. A variety of shell materials and finishes are available including nickel plated brass and black oxide stainless steel.

#### **The Break Away (BANP/BANS) Series:**

Omnetics nano series of circular connectors are also available in a break away configuration as well. Designed with an extra retention spring, these connectors are engineered to release or "break-



away" at a pre-determined force of roughly 4 lbs. (Each contact adds an additional 2.5 oz. ea.).

All 3 configurations include gold plated contacts which are polarized and shrouded by our unique Liquid Crystal Polymer insulator making these connectors capable of over 2,000 mating cycles. Current applications include helmet electronics, surveillance equipment, miniature robotic systems, and portable communication systems.

Nano 360™ offers a number of standard designs and locking methods with pin counts from 2 to 28 positions. The unique polarized-insulator allow for both plastic and metal shell connector design styles. Threaded couplings, metal and plastic breakaway shells and twist-lock housings are ready for both inline as well as panel mount interconnections. Thirty-two gauge standard Teflon insulated copper wire is also offered from stock that handles nearly 1 ampere of current per contact.

As new products require circuit miniaturization, they also demand smaller cable and connector systems to continue the robust performance that's expected from high reliability applications. Omnetics uses these same key elements from our Mil-DTL- 32139 products to ensure these small ruggedized circulars are able to meet and exceed harsh environmental conditions as well as IP67 and other custom requirements brought forth

For more information please visit: <http://www.omnetics.com/products/circular/>

## Omnetics Custom Capabilities

For years Omnetics has been known for their quality single ended micro and nano miniature connectors. Unfortunately, often being lost in translation is our company's strong cable harnessing capabilities.

Whether it is placing numerous Omnetics connectors together for your ultimate solution, or physically procuring another manufacturer's product and/or cable, Omnetics has got you covered.

Omnetics Mil Spec  
Micro and Nano

contacts require precision crimps done on automated crimpers, and considering there are no hand crimp tools available, let Omnetics do the work and build you the cable harness you have in mind, without losing any reliability with solder joints.

Omnetics flex pin contacts are permanently installed and encapsulated in the insulators with epoxy. Omnetics can terminate many wires and

cable types, and perform complete cable harnessing along with backshells and custom over molding as well as flex terminations.

Even if your current application doesn't currently involve all Omnetics connectors, Omnetics will build the entire cable assembly for you, while procuring the necessary parts

and eliminating some of the headache often associated with this process.

Omnetics as a company takes great pride in offering our

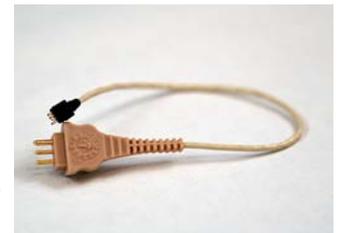
customers the solution they need, not the solution that may be easiest to build, nor the solution that may be the cheapest out of pocket, but rather the quality solution that fits your individual programs need.

If your application requires you to terminate your own wires, we can also supply connectors with solder cups ready to accept your wire.



*“Omnetics can terminate many wires and cable types, and perform complete cable harnessing along with backshells and custom over molding as well as flex terminations.”*

**For more custom cabling info go to: <http://www.omnetics.com/cables/>**



## Omnetics Making Miniaturization Even Easier

Wouldn't it be great, if you could replace the jackscrews within your current nano related applications without losing any reliability in terms of shock and vibration?

Well, look no further because Omnetics, the leading manufacturer of miniature high-rel connectors, has announced that its Bi-Lobe® connectors are now available with a quick latch system. Moreover, these devices pass the shock and vibration requirements of MIL-DTL-32139 – making them the first latching



nano products suitable for use in military and aerospace applications. The latches provide extra security, but are very simple to use and



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**“When you can ditch a screwdriver you can barely hold in the first place, and not lose any sleep over shock and vibe, you know you’ve found a good product.”**



## Latching BiLobe Continued...

require no tools. The latching Bi-Lobe connectors utilize Omnetics' rugged and reliable Flex-Pin contact system spaced on 0.025in (0.635mm) centerlines, and capable of carrying 1A per contact.

**Dielectric withstand voltage is:** 350VAC RMS;

**Insulation resistance is:** 5,000MΩ (min) @ 100VDC;

**Contact resistance is:** 25mΩ (25mV) (max) @ 1A.



Available in pin counts from 9-65, latching Bi-Lobes® can be configured with discrete wires, over-molded cable, panel mount housings, and PCB mount versions.

One of Omnetics recent aerospace customers noted, “When you can ditch a screwdriver you can barely hold in the first place, and not lose any sleep over shock and vibe, you know you’ve found a good product.”

For more custom cabling info go to: <http://www.omnetics.com/products/bilobe-latches/>



## Omnetics On the Road.....

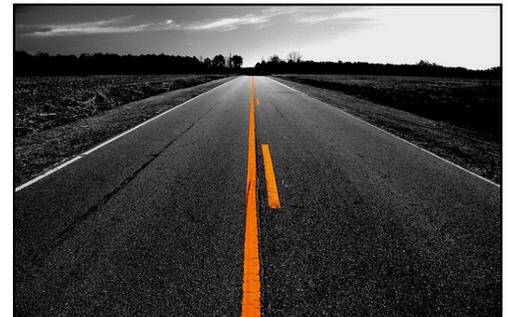
**August 7-10:** AU/VI Las Vegas, NV

**September 11-12:** Raytheon MMSTN - Dallas, TX

**October 12-17:** Neuroscience 2012 - New Orleans, LA

**November 14-16:** Compamed - Düsseldorf, Germany

**December 4-5:** BioMed - San Jose, CA



## About Omnetics

Omnetics was founded in 1984 to deliver rugged, reliable interconnect solutions for the most demanding industries. The company has a fully integrated design and manufacturing plant in Minneapolis, Minnesota USA, where it produces micro and nano miniature interconnect products, featuring COTS, Standards and Custom connectors for industries such as Medical, Military, Aerospace, Defense and other technology oriented OEMs.



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## Fun Facts



**Question:** What state in the US has more shoreline than California, Florida and Hawaii combined?

**Answer:** MINNESOTA.

Minnesota has 90,000 miles of shoreline.