



**USB Connectivity Solutions** for Plug-and-Play Convenience with Industrial Ruggedness



## An Expanding Range of USB Data Communications Solutions from B&B Electronics

The Universal Serial Bus (USB) started out as a standardized approach for controlling computer peripherals. But it has now moved off the desktop and out into the real world, where it is used in challenging environments that range from point of sale to medicine and industry. In fact, it's a near-universal solution for device connectivity. B&B Electronics offers a wide range of USB connection solutions, including USB-to-serial converters, hubs, surge protectors and extenders, all built to keep working flawlessly for years to come, even in the toughest conditions.



Our USB over Ethernet solutions make it easy to communicate quickly with your USB-enabled devices over your LAN.

- Access, monitor, control up to four USB 2.0 devices
- Save time and money no need for a local PC
- 10/100/1000 Mbps Ethernet
- High-speed USB (480 Mbps)
- Easy-to-use management software
- Compatible with the Windows® 7 operating system



Our  $Ulinx^{\text{TM}}$  industrial USB hubs are designed with rugged metal cases, versatile mounting options, high ESD protection, wide operating temperature ranges and high retention USB connectors for instant plug-and-play connectivity.

- Designed and tested to meet heavy industrial EMC standards
- · High-retention ports for connections that won't come loose
- Wide operating temperature range (-40 to +80°C)
- Tested to withstand 50G shock and 4G vibration
- 4,000 V isolation between upstream and downstream USB ports



## USB Extenders

Standard USB has a 5-meter limitation. Our USB Extenders expand that to up to 100 meters using standard CAT5 network cabling or up to 500 meters using a fiber connection.

- USB extenders replenish the operating voltage to remote devices through the PC USB port. No external power is required
- Extend regular USB signals over Cat5 cable up to 40 meters with the ETR-USB2



## Surge Protectors

Our economical single-stage surge protectors provide a transient voltage suppressor (TVS) for each protected line.

- 600W surge suppression
- Simple in-line installation
- Ethernet, USB, RS-232, RS-422 and RS-485 versions available

For more than three decades, B&B Electronics has been expanding and reinforcing its reputation as a global source for best-in-class, easy to use, rugged and reliable device connectivity solutions. Today, regardless of how far you have to extend your data communications, B&B has the hardware solutions you need. Just as important, we back them up with world-class technical support that's available online, on the phone and in the field. Our factory Tech Support team has field-proven experience in USB communication applications, connectivity solutions and product installation. They can help you re-envision, re-scope, and re-structure your data communications, solve difficult device connectivity problems and help you select the most appropriate USB solution for your application.





Protect and isolate your USB-enabled devices from noise, surges and spikes with our rugged isolators, even in the unfriendly electrical environments found near variable frequency drives, motor control centers, welders and other devices with large electrical loads. Two models offer medical-grade isolation.

- UL 60601-1-2 for medical applications (models UH401 and UH401SL)
- High retention USB connectors hold tight to ordinary USB cables
- Choose from 1.5 or 12 Mbps data rates to match your peripherals
- Wide operating temperature range (-40 to +80°C)
- Compact design, just 2.0 x 1.7 x 0.8 inches (UH401 Series)
- USB bus powered with 100mA downstream power
- Compliant with the USB standard



Now you can forget about annoying cable disconnections due to vibration. B&B Electronics' high retention ports are 50% stronger than conventional USB ports, so they hold on tight to standard USB cable connections.



Plug one of B&B's USB-to-Serial converters into a USB port on your computer, laptop, or hub to configure it automatically as an additional COM port. The industrial-strength orange connector, lets you stop worrying about unstable connections, even in high vibration applications.

- Inline isolated converters for RS-422/485 or RS-232 data lines
- Isolated panel mount designs for 2- or 4-port RS-422/485 or RS-232
- Mini non-isolated inline designs for mobile applications
- Rugged 2- or 4-port designs for industrial environments are shock, vibration, and drop test for high durability and lasting performance
- TTL/USB converters
- Locked-serial options



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Making USB Reliable in Rugged Applications
This Tech Tip video offers advice for using
Industrial USB in the field. Explains connection
types, mounting options and how to choose
the right product for your application.



Complete your USB system installation or expansion with the right cables and connectors.



## USB Products Backed Up by USB Communications Expertise



Our factory Tech Support team has field-proven experience in USB applications, connectivity solutions, network design and product installation. B&B Electronics engineers don't just troubleshoot problems after the fact — they can actually prevent and anticipate system design and integration problems before you ever make a purchase. Whether you have a simple application question, a complex project installation, or an outside-the-box problem, our technical support team is standing by to provide assistance at no charge — whether you purchase directly from us or through one of our distribution channel partners.

In addition to technical support available online, on the phone, or in the field, all of our Ethernet solutions are backed by our comprehensive Quality Assurance program that allows us to provide one of the best guarantees in the industry. All B&B Electronics' USB products carry a full five-year warranty and a 30-day 100% satisfaction return policy.

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In addition to our U.S. manufacturing, distribution, and customer support operations, we have a manufacturing facility located in the Czech Republic. Our European headquarters in Ireland provides service, support and product availability for customers in Europe, the Middle East, and Africa through a network of more than 40 qualified distributors. Our global network of distributors helps ensure fast, comprehensive and local customer service and support. B&B Electronics' products are also available around the world through our expanding network of channel partners, including value-added resellers and system integrators.

Learn how B&B Electronics can create a USB-based solution for you by visiting us online or contacting us directly.

Find B&B products in more than 60 countries around the world

Talk to your favorite distributor about B&B Electronics products, or to find a channel partner near you, please go to www.bb-elec.com

