

Single Port USB Isolators

UH401 Series

B+B SMARTWORX

Powered by

ADVANTECH



PRODUCT FEATURES

- 15 kV ESD Protection
- -40 to 80°C Operating Temperature
- High Retention USB Connectors
- Ultra-Compact
- USB Bus Powered
- USB Cable Included

At just 2.0 x 1.7 x 0.8 inches, these little isolators pack a powerful punch against electrical noise, surges and spikes - up to 4kV isolation. Protect expensive PCs and equipment from damaging electrical storms, power surges and other high EMI/RFI disturbances. This isolation barrier eliminates ground loops which are disruptive in measurement applications.

UH401 and UH401SL provide 4 kV isolation.

UH401-2KV and UH401SL-2KV provide 2kV isolation.

All models are USB bus powered and provide up to 100mA of current to attached downstream devices when they are attached to a full power (500 mA) USB host port.

These data rates are preconfigured at the factory. You should select a model that is appropriate for your USB peripheral (low speed or full speed). Note that high speed (480 Mbps) cannot be isolated with existing technology.

Four models are available. Select a low speed version, UH401SL or UH401SL-2KV, if you are using a low speed device. Low speed devices are typically human interface devices such as a mouse or keyboard. Use the full speed version, UH401 or UH401-2KV for full speed USB devices.

ORDERING INFORMATION

| MODEL NUMBER | USB SPEED | ISOLATION |
|--------------|----------------|-----------|
| UH401 | Full (12 Mbps) | 4 kV |
| UH401SL | Low (1.5 Mbps) | 4 kV |
| UH401-2KV | Full (12 Mbps) | 2 kV |
| UH401SL-2KV | Low (1.5 Mbps) | 2 kV |



IN THE FIELD

Protecting Laptops on Field Service Calls

Industry: Industrial Automation
Product: USB Isolators



[www.bb-elec.com/
USBField](http://www.bb-elec.com/USBField)

UH401, UH401-2KV

Carrier data charges may apply.



IN THE FIELD

USB Isolation in Medical Applications

Industry: Industrial Automation
Product: USB Isolators



[www.bb-elec.com/
USBMedical](http://www.bb-elec.com/USBMedical)

UH401, UH401-2KV

Carrier data charges may apply.

Single Port USB Isolators

UH401 Series

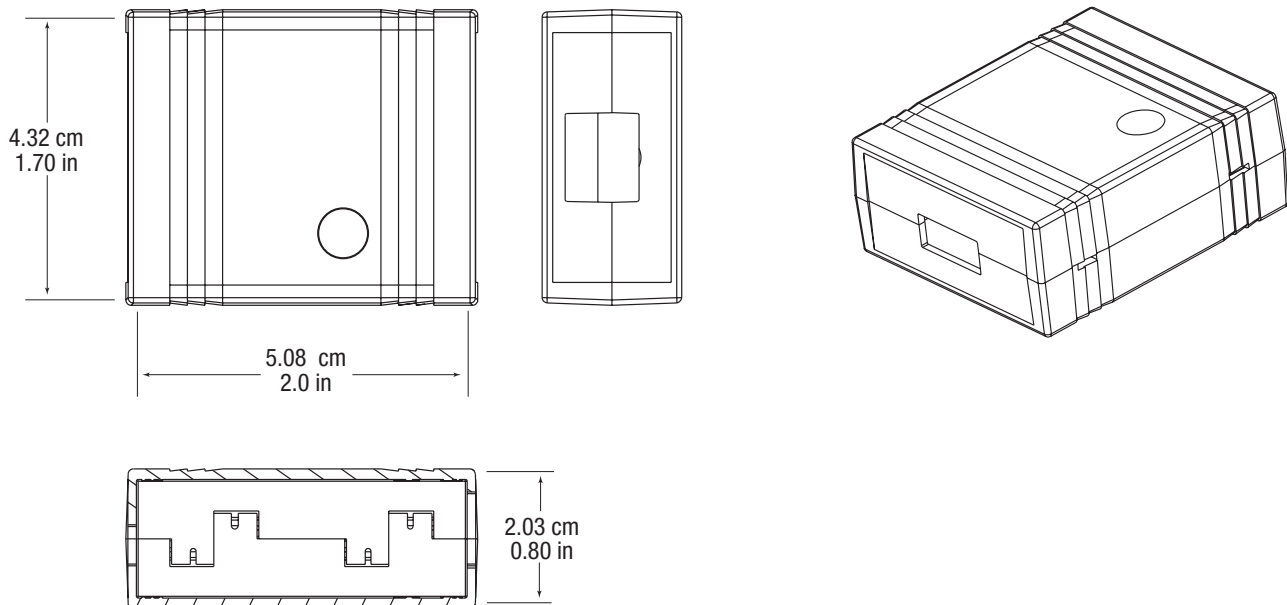


SPECIFICATIONS

| TECHNOLOGY | |
|---------------------------|--|
| Standards | USB 1.1, 12 Mbps (UH401 & UH401-2KV) or 1.5 Mbps (UH401SL & UH401SL-2KV) Note: These devices are transparent to the operating system, require no software drivers and will not be enumerated in device manager. |
| INTERFACE | |
| USB Ports | High Retention USB Type B (Upstream), Type A (Downstream), Minimum withdrawal force of 15 Newtons (~3.4 lbs-force) |
| LED Indicators | Power from USB bus |
| POWER | |
| Input Voltage | Standard USB bus power (5VDC) |
| Downstream Power Provided | Up to 100mA with full power upstream connection |
| Isolation UH401-2KV | 2KV |
| Isolation UH401SL-2KV | 2KV |
| Isolation UH401 | 4KV |
| Isolation UH401SL | 4KV |

| ENVIRONMENTAL | |
|--------------------------|---|
| Operating Temperature | -40 to 80° C (-40 to 176° F) |
| MTBF | 1,049,851 hours |
| MTBF Calculation | MIL 217F Parts count reliability prediction |
| MECHANICAL | |
| Enclosure | IP30 plastic case |
| Dimensions | 4.32 x 5.08 x 2.03 cm (1.7 x 2.0 x 0.8 in) |
| APPROVALS/CERTIFICATIONS | |
| Emissions | FCC Class A, CISPR Class A (EN55022) EN61000-6-2:2005 (Heavy Industry) EN61000-4-2:2008 (ESD +/-8kV Contact, +/-15kV Air) EN61000-4-3:2006 (RI) 10V/m, 80-1000MHz; 3V/m, 1.3 to 2.7 GHz EN61000-4-4:2004 (EFT Burst) +/-2kV DC ports; +/-1kV signal ports EN61000-4-5:2005 (Surge) +/-500V DC ports; +/-1kV signal ports EN61000-4-6:2005 (CI) 10Vrms, 0.15 to 80 MHz EN61000-4-8:2001 (Magnetic) 10A/m, 50Hz & 60Hz |
| CE | |

MECHANICAL DIAGRAM





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