

UH401 Series

Single Port USB Isolators

- ✓ 2 kV or 4 KV Isolation
- ✓ Level 4 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 2 kV 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.

They are USB 2.0 compatible and transfer data at either 12 Mbps or 1.5 Mbps. 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.

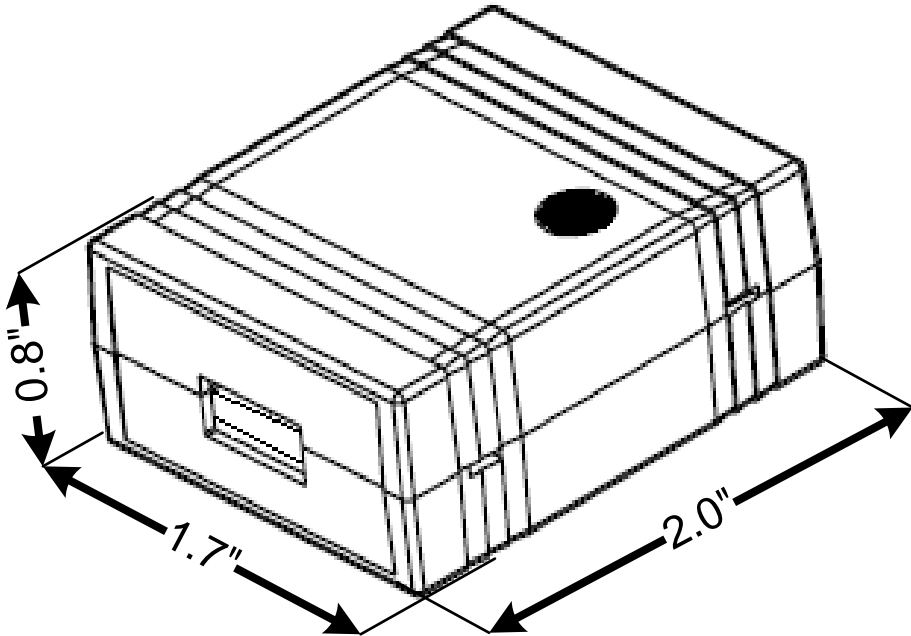
Specifications

| USB Interface | |
|--------------------------|---|
| Upstream Port | High Retention Type B (Upstream) |
| Downstream Port | High Retention Type A (Downstream) |
| Minimum Withdrawal Force | 15 Newtons (3.4 lbs) |
| Isolation | |
| UH401-2KV | 2 kV |
| UH401SL-2KV | 2 kV |
| UH401 | 4 kV |
| UH401SL | 4 kV |
| Power | |
| Source | Standard USB bus power (5 VDC) |
| Downstream Power | Up to 100 mA when connected to a full power upstream port |
| LED Indicators | Power from USB bus |
| Mechanical | |
| Dimensions | 1.7 x 2.0 x 0.8 in (43.2 x 50.8 x 20.3 mm) |
| Enclosure | IP 30, Plastic |
| Environmental | |
| Operating Temperature | -40 to 80°C -40 to 176°F |
| MTBF | 1,049,851 hours |
| MTBF calculation | MIL 217F Parts count reliability prediction |

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 |

| Approvals / Certifications | | | |
|----------------------------|----------------------------------|------------------|---|
| Emissions | Class A, CISPR Class A (EN55022) | | |
| CE | EN61000-6-2 | (Heavy Industry) | |
| | EN61000-4-2 | (ESD) | +/-8kV Contact, +/-15kV Air |
| | EN61000-4-3 | (RI) | 10V/m, 80-1000MHz; 3V/m, 1.3 to 2.7 GHz |
| | EN61000-4-4 | (EFT Burst) | +/-2kV DC ports; +/-1kV signal ports |
| | EN61000-4-5 | (Surge) | +/-500V DC ports ; +/-1kV signal ports |
| | EN61000-4-6 | (CI) | 10Vrms, 0.15 to 80 MHz |
| | EN61000-4-8 | (Magnetic) | 10A/m, 50Hz & 60Hz |



DIMENSIONS IN INCHES ABOVE
 (50.8 X 43.2 X 20.3 mm)

Mouser Electronics

Authorized Distributor

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