

# UH401 Series

## 1 Port, USB to USB Isolators

### Features

- ✓ Meets EN60601-1-1 and EN60601-1-2 for medical applications
- ✓ Up to 4kV isolation, 8kV contact, 15kV air ESD
- ✓ High retention USB connectors
- ✓ Ultra compact
- ✓ Includes 1 meter USB cable
- ✓ Operating temperature -40 to 80°C
- ✓ USB bus powered
- ✓ No drivers required
- ✓ Connectors: Type B-Upstream, Type A-Downstream



### Functional Description

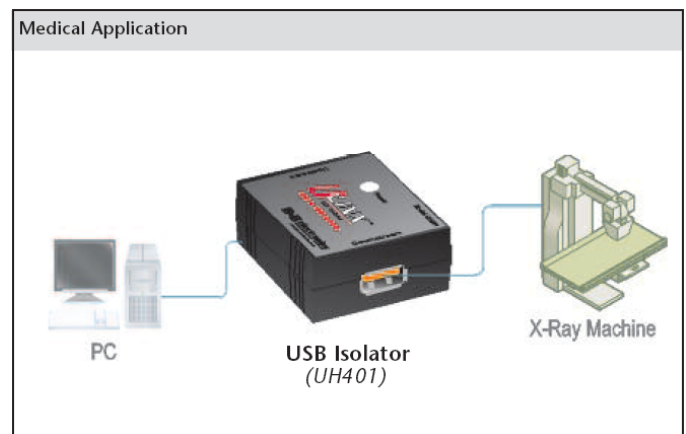
At just 2.0 x 1.7 x 0.8 inches, these little isolators pack a powerful punch against electrical noises, surges and spikes – up to 4kV isolation. Protect expensive PCs and equipment from damaging electrical storms, power surges and other high EMI/RFI disturbances. This isolation barrier eliminates ground loops which are disruptive in measurement applications. Model UH401, designed to meet EN60601 specification, isolates up to 4kV - strong enough for hospital and medical use.

These isolators are USB bus powered and provide up to 100mA of current to attached downstream devices. LED indicates power supplied via upstream USB port.

Complies with the USB 1.1 standard and transfers data at 12Mbps. Standard USB cables of up to 5 meters may be used on either side of the UH401 series products.

### Ordering Information

Model Number	Isolation
UH401	4KV
UH401-2KV	2KV



## Specifications

### Technology

Standards: USB 1.1, 12Mbps

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

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,  
 UH401 = 4KV

### Environmental

Operating Temperature: -40 to 80° C (-40 to 176° F)

MTBF: 1,049,851 hours

MTBF Calculation: Parts count reliability prediction

### Mechanical

Enclosure: IP30 plastic case

Dimensions: 1.7 x 2.0 x 0.8 in (43.2 x 50.8 x 20.3 mm)

### Approvals / Certifications

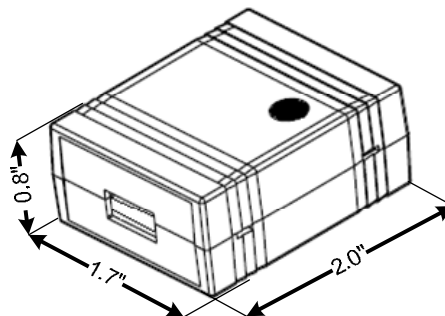
Emissions FCC Class A, CISPR Class A (EN55022)

CE	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

Medical (non life-support) IEC60601-1-1:2000 Medical electrical equipment, Safety requirement

( UH401 only) IEC60601-1-2:2007 Medical electrical equipment, Electromagnetic compatibility (EMC)

### Diagram



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