One and Two Port Ruggedized USB Isolators

BB-UHR401 & BB-UHR402



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PRODUCT FEATURES

- · 4 kV isolation protects equipment and data
- ESD protection 15 kV Air
- USB 2.0, full speed (12 Mbps)
- Panel mount, heavy-duty case (optional DIN rail adaptor clips)
- High retention USB connectors
- One and Two Port Versions
- · Both a power supply and a USB cable are included

The BB-UHR401 and BB-UHR402 are one and two port ruggedized Isolators. They are designed and tested to meet heavy industrial EMC standards. High retention USB connectors hold standard USB cables tight and are perfect for high vibration applications – requiring up to 3.2 lbs force to disconnect them. They have 4 kV isolation between the upstream and downstream USB ports to protect expensive equipment from dangerous ground loops and to help ensure data integrity.

The heavy lindustrial EMC specifications allow these isolators to operate in unfriendly electrical environments – such as near variable frequency drives, motor control centers, welding, and other large electrical loads.

They are powered from an external 10 to 30 VDC power supply (required). An international power supply is included that has USA, EU, and UK blades. The downstream port(s) provides up to 500 mA of power to connected USB devices.

ORDERING INFORMATION

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	MODEL NUMBER	USB SPEED	
	BB-UHR401	1-Port Rugged USB Isolator	
	BB-UHR402	2-Port Rugged USB Isolator	

Includes: 12 VDC Wall Plug-In Power Supply and 1.8 m (6 ft) USB Cable.

ACCESSORIES - sold separately

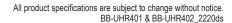
BB-PS12VLB-INT-MED - Replacement power supply 12VDC, Medical Grade - US, EU, UK blades.

BB-MDR-20-24 - DIN rail mount power supply 24VDC, 1.0 A output power

BB-PSPT-LB - Stripped and tinned power connector for use with industrial power supply. Locking barrel connector.

BB-USBAMBM-6F - USB Cable, 1.8 m (6 ft), Type A Male/Type B Male (Grey) (one included)

BB-DRAD35 - DIN rail adapter clip





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BB-UHR401 & BB-UHR402



SPECIFICATIONS

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USB INTERFACE		
Standards	USB 1.1 & 2.0 (12 Mbps)	
Upstream Port	(1) Type B Female – High Retention	
Downstream Port	(1 or 2) Type A Female – High Retention	
Speed	12 Mbps Multi-transaction Translator, 1 per port	
Isolation	4 kV – Upstream to Downstream	
ESD	15 kV Air, 8 kV Contact	
High Retention	USB ports require 15 N (3.2 lbs-force) withdrawal force using standard USB cable	
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		
Source	External, required (included)	
Power Connector	Threaded barrel jack	
Input Voltage	10 to 30 VDC	
PSU	Input :110 – 240 VAC, 50 / 60 Hz US, EU, UK blades included Output: 12 VDC	
Barrel Jack	Barrel Jack, Center Positive	
Power	BB-UHR401 – 4 Watts (external source) BB-UHR402 – 7 Watts (external source) Locking / Threaded, Center Positive	
Downstream Power	500 mA per port	
INDICATORS		
Power	Green LED	
Port Ready	Green LED	

MECHANICA	٩L		
Dimensions		7.9 x 5.4 x 2.7 cm (3.1 x 2.1 x 1.1 in)	
Enclosure		IP 30, Plastic	
Weight		0.15 lb (80 g)	
MEANTIME	BETWEEN I	FAILURES (MTBF)	
MTBF BB-UHR401		375842 Hours	
MTBF BB-UHR402		353807 Hours	
MTBF Calc. Method		MIL 217F Parts Count Reliability	
ENVIRONMI	ENTAL		
Operating Temperature		0 to +50 °C	
Storage Tem	perature	-40 to +85 °C	
Operating Hu	umidity	0 to 95%, non-condensing	
	APPROVALS/CERTIFICATIONS		
,-	FCC, CE		
KCC, R(MSI		P-REM-AK0-UHR401 (Models BB-UHR-401, BB-UHR402)	
CE -		J - Electromagnetic Compatibility Directive J - amended by (EU) 2015/863 Reduction of Hazardous	
Directives		s Directive (RoHS)	
	2012/19/EU	J - Waste Electrical and Electronic Equpment (WEEE)	
	EN 55032 Class B - Electromagnetic compatibility of multimedia equipment		
CE -		on requirements	
Standards	EN 55024 - InformationjTechnology Equipment - Immunity Characteristics - Limits and Methods of measurement		
	EN 61000-6-4 +A1 - Generic Emission standard for industrial environments		
	EN 61000-	6-2 - Generic Immunity standard for industrial environments	
		2-27 - (Shock) 50G Peak, 11 ms, 3 axes	
IECx		2-6 - (Vibration) 4G, 140-500 Hz, 3 axes	
	IEC00008-	2-32 - (Drop) 10 total drops from sides, corner, edges	

MECHANICAL DIAGRAM

