B&B ELECTRONICS

PRODUCT INFORMATION

UHR304 & UHR204

Four Port Rugged USB Hubs

- ✓**4 kV Isolation (Model UHR304)**
- ✓**High Retention USB Connectors**
- ✓**Level 4 ESD Protection – 15kV**
- ✓**Rugged Metal Case – Panel & DIN Rail Mount**
- ✓**Wide Operating Temperature (-40 to 80°C)**
- ✓**USB 2.0 – Full Speed (12 Mbps) Model UHR304**
- ✓**USB 2.0 – High Speed (480 Mbps) Model UHR204**

The UHR304 and UHR204 are ***Industrial Grade Four Port USB Hubs***. They are designed and tested to meet heavy industrial EMC standards and are UL listed for Class 1 Division 2 hazardous locations. High retention USB connectors hold standard USB cables tight and are perfect for high vibration applications – requiring up to 3.4 lbs-force to disconnect them. Model UHR304 has 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 Industrial EMC specifications allow these hubs to operate where standard office grade hubs fail – 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 source. The non-isolated UHR204 may also be powered from the USB bus. Two power connectors are provided – terminal block or threaded / lockable barrel plug. Refer to ordering information for power supply recommendation. Each downstream port provides up to 500 mA of power to connected USB devices. Refer to the specification table for additional information concerning downstream power.

Panel Mount Brackets and a DIN Rail Clip are included. Remember B&B Electronics when it comes to USB applications in harsh electrical environments.

Specifications

USB Interface	
Standards	USB 1.1 & 2.0
Upstream Port	(1) Type B Female – High Retention
Downstream Port	(4) Type A Female – High Retention
Speed	12 Mbps – Model UHR304 480 Mbps – Model UHR204 Multi-transaction Translator, 1 per port
Isolation	4 kV – Upstream to Downstream Model UHR304
Surge Protection	+/- 0.5 kV DC Ports, +/- 1 kV Signal Ports
ESD	15 kV Air, 8 kV Contact
High Retention	USB Ports require 15 N (3.4 lbs-force) withdrawal force using standard USB Cable
Power	
Source	External (Required for Model UHR304) Model UHR204 may be bus powered. See Downstream power limitations
Power Connector	Terminal Block or threaded barrel jack
Input Voltage	10 to 30 VDC
Power	UHR204 – 16 Watts (External Source) UHR304 – 16 Watts (External Source)
Power TB	3 Position, 5.08 mm spacing, 28-12 AWG, Solid Wire
Barrel Jack	Locking / Threaded, 5.5 mm, Center Positive
Downstream Power	500 mA per port 100 mA per port when bus powered.
Indicators	
Power	Green LED (External Power) Yellow LED (Bus Power)
Port Ready	Green LED
Mechanical	
Dimensions	5.5 x 3.5 x 1.4 in (13.9 x 8.7 x 3.5 cm)
Enclosure	IP 30, Metal
Weight	1.4 lbs (635 g)
MTBF UHR204	211,773 Hours
MTBF UHR304	190,999 Hours
MTBF Calc. Method	MIL 217F Parts Count Reliability
Environmental	
Operating Temperature	-40 to 80°C
Storage Temperature	-40 to 85°C
Operating Humidity	0 to 95% Non-condensing

Ordering Information

UHR304	4 Port Industrial USB Hub, Isolated
UHR204	4 Port Industrial USB Hub
PS5R-SC24	12 VDC, 30 W Power Supply, DIN / Panel Mount
PS12VLB-INT-MED	Wall Power Supply, 12 VDC US, EU, UK Blades

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PRODUCT INFORMATION

Approvals / Certifications			
Emissions	FCC Class B, CISPR Class B (EN55022)		
CE	EN61000-6-2:2005	(Heavy Industrial)	
	EN61000-4-2:2008	(ESD)	+/- 8kV contact, +/-15 kV air (level 4)
	EN61000-4-3:2006	(RI)	10 V/m, 80-1000 MHz; 3 V/m 1.3 to 2.7 GHz
	EN61000-4-4:2004	(EFT Burst)	+/- 2kV DC ports; +/- 1 kV signal ports
	EN61000-4-5:2005	(Surge)	+/- 2 kV com; +/- 1 kV differential
	EN61000-4-6:2008	(CI)	10 VRMS, 0.15 to 80 MHz
	EN61000-4-8:2001	(Magnetic)	10 A/m, 50 Hz & 60 Hz
Other	IEC60068-2-27	(Shock)	50G Peak, 11 ms, 3 axes
	IEC60068-2-6	(Vibration)	140-500 Hz, 4G, 3 axes
	IEC60068-2-32	(Drop)	10 total drops from sides, corner, edges
UL	Class 1 Division 2 Listed		File: E245458

UL Information

Suitable for use in Class 1, Division 2, Groups A, B, C and D Hazardous Locations, or Nonhazardous locations only.
WARNING - EXPLOSION HAZARD – DO NOT DISCONNECT EQUIPMENT WHILE THE CIRCUIT IS LIVE UNLESS THE AREA IS KNOWN TO BE FREE OF IGNITABLE CONCENTRATIONS.
WARNING - EXPLOSION HAZARD - SUBSTITUTION OF ANY COMPONENT MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2
Install in accordance with control drawing number 9340R0.

Ind. Cont. Eq.
For HAZ LOC
3HTV
E245458
Class I, Div. 2, Groups A, B, C & D
Temp. Code: T4A