



# UBDM100USM UHF IS BARRIER WITH DC

- Facilitates DC Power Injection onto Either Port, Individually and Isolated
- LEDs Indicate Presence of DC Power
- 90V Triggered Lightning Surge Arresters at Ports
- Transparent VHF and UHF RF Throughout
- Provides 6KV for Isolation Between the Base Station (BS) Port and the Main Arterial (MA) Port

## FEATURES

Becker Mining Systems smartcom® Intrinsically Safe Isolation Barrier is used to provide an isolated interface between the base station; a 'Radiating Leaky Feeder Cable System' located in the non-hazardous area, and a "Radiating Leaky Cable System" located in the hazardous area. The Barrier provides an ac link but no dc power passes between the two sides of the interface. Each side of the barrier provides a connection facility for a power supply located in the respective location. The safe area terminals are for connection to a non-intrinsically safe power supply and the hazardous area terminals are for connection to an intrinsically safe power supply.

The primary purpose of the IS Isolation Barrier is to isolate the hazardous-area equipment from the safe-area equipment. The safe area terminals are for connection to non-intrinsically safe Leaky Feeder equipment and the hazardous area terminals are for connection to intrinsically safe Leaky Feeder equipment. This leaky feeder unit is NOT to be used in hazardous areas for example to replace a Cell Coupler.

The equipment is comprised of a single PCB which is encapsulated inside a certified glass fiber reinforced polyester enclosure. The IS Barrier has two RF connections for simple installation of coaxial radiating cables.

### APPROVALS

Approved Explosion Protection rating (ia)	Ex GI ia
Inspection Authority Certificate (ia)	MSHA 23-A080003-0

## TECHNICAL DATA

### PERFORMANCE SPECIFICATIONS

Frequency Band	200 MHz - 500 MHz
Port Characteristic Impedance	50Ω
Connectors	50Ω Brass Blocks
Insertion loss	<5dB
VSWR	1.3:1 (450MHz to 480MHz)
Supply Voltage	5 - 17 Vdc

### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-20°C to +40°C Derate 0.5 °C per 500m ASL
Storage Temperature	-40°C to +65°C
Operating Altitude	Up to 5500m ASL
Operating Humidity	10% to 85% (Non Condensing)
Ingress Protection Rating	IP66 according to EN60529
Impact Resistance	7Nm - Body Only - Not indicator lights
Flammability	UL94 V-0
Toxicity	Halogen and Cadmium Free
Electromagnetic Interference (EMI)	FCC Emissions Class A (Industrial) CE Emissions Class A (Industrial)

### MECHANICAL SPECIFICATIONS

Dimensions (H x W x L)	61 x 75 x 160 mm 2.4 x 3.0 x 6.3 in
Weight	0.776 kg
Principal Materials	Enclosure: Glass Reinforced Polyester GRP Connectors: Electroplated Brass Thermoplastic polymer glass fiber
Enclosure	Kestrel 'KE' & 'POK' glass reinforced polyester type
Finish	Black

Technical data are limit values.

If the product is integrated into systems or operated in combination with other devices, its permissible operating values can deviate from these limit values. Subject to technical modifications without prior notice.

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