



# UBDX100AUI UHF IS BARRIER WITH DC

- Provides 6KV Isolation Between the Base Station and Main Arterial Port
- 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 Throughput

## FEATURES

Becker Mining System smartcom® Intrinsically Safe Isolation Barrier is used to provide an isolated interface between two separately powered “Radiating Leaky Cable Systems”. The IS Barrier is located in the non-hazardous area and provides an RF link and dc power to the hazardous area equipment. Each side of the barrier provides a connection facility for a power supply located in its 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 ia Ma] I
Inspection Authority Certificate (ia)	Sira: IECEx SIR 10.0036X, ITACS: IECEx ITA 11.0009X

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.

Rev. D

## 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 (435 MHz to 470 MHz)
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	776 g
Principal Materials	Enclosure: Glass Reinforced Polyester GRP Connectors: Electroplated Brass Thermoplastic polymer glass fiber
Enclosure	Kestrel 'KE' & 'POK' glass reinforced polyester type
Finish	Black