



UESX500AUI UHF IS AMPLIFIER INDUCTIVE

- Large Channel Capacity with Simultaneous Voice and Data Transfers
- Freedom from Inter-Modulation Distortion
- Reliable and 'Mean-Time-Between-Failure' Channels

FEATURES

Becker Mining Systems smartcom® UHF Bi-Directional Amplifier (BDA) compensates for Leaky Feeder Cable longitudinal losses. The BDA is typically used within Mining, Shipping, Tunneling, Motorway and In-Building radiating cable systems, amplifying the UHF signal in both directions simultaneously and serves to maintain the strength of the RF signal levels along the Leaky Feeder coaxial cable.

The Bi-Directional Amplifier is unique in that it offers the lowest possible noise contribution to an already weak RF carrier when operating in collocation with a strong carrier. The connectors of the inline amplifiers have been designed for ease of connection making installation and repair as convenient as possible. The Power Source required from the Leaky Feeder cable ranges from 8 Vdc to 17 Vdc.

MECHANICAL SPECIFICATIONS	
Dimensions (H x W x L)	61 x 75 x 230 mm 2.4 x 3.0 x 9.1 in
Weight	1.24 kg
Principal Materials	Enclosure: Glass Reinforced Polyester GRP Connectors: Electroplated Brass Thermoplastic polymer glass fiber
Gasket	Silicon rubber
Mounting options	4 holes M6 directly

APPROVALS	
Approved Explosion Protection rating (ia)	Ex ia I Ma
Inspection Authority Certificate (ia)	IECEX SIR 10.0036X IECEX ITA 11.0009X

TECHNICAL DATA

PERFORMANCE SPECIFICATIONS	
Frequency range Voice/ Data	Base to Handheld 470 MHz to 480 MHz (Downlink) Handheld to Base 445 MHz to 455 MHz (Uplink)
Channel Capacity	80 Channels Both Up and Down
Down Link and Up Link Open Loop Gain	22 dB min
Gain Response Ripple	1.6 dB maximum
Downlink and Uplink Nominal Output Set-point	0 dBm
Typical Thresholds:	
LED LOW LOW	≤ -23 dBm
LED LOW	-22 dBm
LED GOOD	-21 dBm
LED HIGH	-20 dBm
LED HIGH-HIGH	-19 dBm
Typical AGC LED Threshold	-18 dBm
Operating Voltage	8 V to 17 Vdc
Current Requirement @ 12 VDC	250 mA max
Through current capacity	3.0 A max.
CLC 0dB - 15dB Attenuated Gain (Up & Down)	0.5 dB steps

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature	-20 °C to +40 °C
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)

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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becker
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