Intelligent Machine Modem Type: 22501-001

Technical Datasheet

Description

The ***22501-001 Intelligent Machine Modem*** has been designed specifically for installation into mining machinery which is subjected to **high vibration, shock and temperatures** allowing reliable data transmission to another point e.g.- HVAC switchgear or surface control room.

The rugged steel enclosure houses proven custom built electronics. Each unit is operationally soak tested for 24Hours @ 80ºC in the factory to ensure reliable operation in use.

Manufacturers **worldwide** have been specifying **CSL modems as standard** in their machines for many years, providing trouble free operation and enhancing their own products.

Features

- **19K2** or **9600 Baud** asynchronous operation
- **RS232 Interface** – 8 data, Even/No Parity, 1 Stop
- Half-Duplex transparent operation (**protocol independent**)
- **2-Wire FSK operation** using dedicated cores (e.g. 7S trailing cable) or using trailing cable pilot core and earth (e.g. type 7M cable, need to check compatibility with pilot circuit. Note: additional coupling component may be required – part No.20000-009)
- Modem handles carrier switching internally – RTS control NOT required! **Simple TXD and RXD operation** (plus signal common).

Electrical

- Power Supply Range: 11…15VDC (**12VDC** nom)
- Current Consumption: **200mA** max
- User connections direct to integral cables
  - *Supply Cable:*
    - Red = +12V
    - Black = 0V
  - *FSK Signal Cable:*
    - Blue = FSK+
    - Black = FSK-
  - *RS232 Cable:* (25W Female D-Con pin number in brackets)
    - Red = TXD (2)
    - Brown = RXD (3)
    - Yellow = RTS (4) * not required for operation
    - Green = CTS (5) * not required for operation
    - Blue = DCD (8) * not required for operation
    - Black = SIG COM (7)
    - Screen = Chassis GND (1)

Mechanical

- Dimensions: 210 x 190 x 50mm
- Weight: 5Kg approx

Environmental

- Operating Ambient: 0…70ºC
- Storage Temperature: -20…70ºC
- Shock: 30g over 18ms
- Vibration: 5g at 5-500Hz, 0.15mm, 3-axis, 1 octave/min
- Humidity: 95% non-condensing

Document Revision History

Rev 1.1	22/03/2006	Updated format
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