

BALBOX SDI RS232 Data Inserter/Extractor



FEATURES

- User configurable as Inserter or Extractor
- Inserts RS232 data at up to 14,400b/s
- Extracts data at 19,200b/s
- Two SDI outputs
- SDI bypass relay
- Standalone or rack-mountable in 1U
- Universal mains powered stand-alone unit

The *DIDX010* allows RS232 data to be transported within SDI video signals. The insertion method allows the data to survive subsequent MPEG compression, particularly through MPEG encoders which can handle VBI as video. The user may choose where the data is carried within the SDI. Two SDI outputs are provided.

RS232 data may be input at 9,600bps or 14,400bps, and extracted data is output at 19,200bps. The output data rate must be higher than the input data rate as the SDI link does not provide the usual RS232 handshaking mechanisms.

Each unit may be set by the user to insert or extract data. One unit will be required at each end of the link.

By cascading two or more units it is possible to achieve redundancy, or increase the data capacity. The units will not interfere with embedded audio data.

A bypass relay is incorporated to route the SDI input to the 'main' SDI output to ensure signal continuity in the event of power discontinuity, or under user control.

The *DIDX010* is housed in a robust case designed to be free-standing but up to four *BALBOX* style units can be mounted in a 1U high tray.

The universal mains power is supplied via an IEC inlet.

Note

The *DIDX* performance characteristics are defined by embedded software. This can be factory re-configured to suit particular requirements.

Please contact BAL to discuss specific requirements.

SPECIFICATION – DIDX010

SDI INPUT CHARACTERISTICS

Input signal: 270Mb/s serial digital video to SMPTE RP259M
Line standard: 625/50 or 525/60 automatically detected
Cable equalization: up to 250m of Belden 8281 coaxial cable or similar
Input impedance: 75 ohm terminating
Input return loss: >15dB
Input connector: BNC socket

DATA CHARACTERISTICS

Data format: 8bit, no parity, 1 stop bit (2 stop bits at 14,400b/s).
Data connector: 9way sub-miniature D-type socket, with screw-locks.
Input rates: 9,600b/s (1stop bit) or 14,400b/s (2 stop bits)
Extraction rate: 19,200b/s

SDI OUTPUT CHARACTERISTICS

No of outputs: 2
Output signal: 270Mb/s serial digital video to SMPTE RP259M
Bypass: Power fail/user select between SDI input and main SDI output
Output impedance: 75 ohm
Output return loss: >15dB
Output connectors: BNC socket x 2

CONTROLS

DIP switches: Manual bypass
Insert/Extract
9,600/14,400b/s
Insertion point selection

Rotary control:

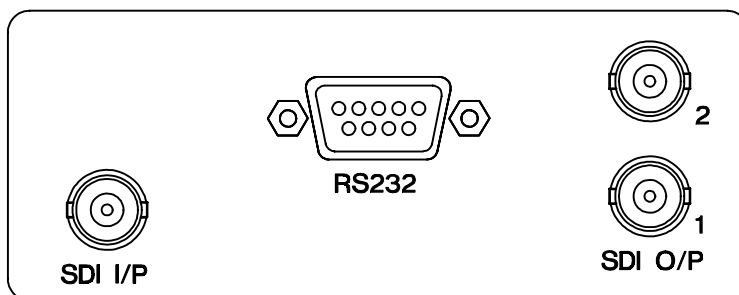
INDICATORS

LED 1: Bi-colour, status
LED 2: Power

INSTALLATION DATA

Package: Standard *BALBOX* housing, with three 75ohm BNC signal connectors and one 9w D-type socket.
Size: 184 x 103 x 42.4mm.
Weight: 950g.
Mains supply: 90 – 250Vac
Consumption: <15VA

Refer to *BALBOX* data sheet for information on 1U tray – **BOXRACK**



DIDX010 Rear Panel

Please contact BAL to discuss your particular data embedding requirements.

ORDER CODE

DIDX010
BOXRACK

DESCRIPTION

BALBOX SDI RS232 Data Inserter / Extractor.
Tray to hold up to 4 *BALBOXes* in 1U 19" rack.
