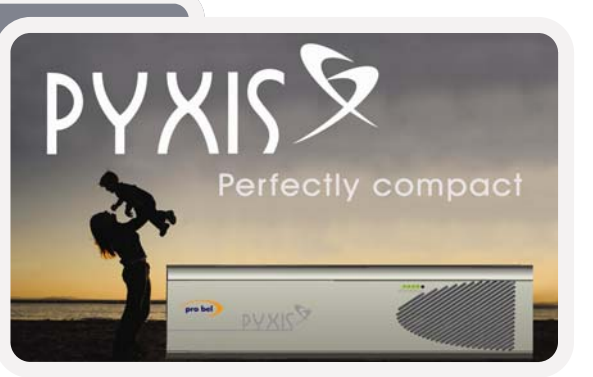
Pyxis

A New Generation of Flexible, Compact, Cost Effective Routing from Pro-Bel



FEATURES

- Flexible multi-format, multi level router range
- High packing density with 17^2 HD-SDI in 1RU up to 72^2 HD-SDI in 3RU
- Up to 144^2 Stereo AES and Analog Audio in 3RU or 36^2 in 1RU
- 3Gbit/s capability on all HD-SDI routers
- Mix and match all common broadcast signal types: 3Gbit/s, HD-SDI, SD/ASI in 72^2, 34^2, 17^2 sizes. AES, Stereo Analog Audio in 144^2, 108^2, 72^2, 36^2 sizes. Mixed analog, AES and MADI I/O up to 272^2.
- Wideband Analog Video - 64^2, 32^2, 16^2 also configurable for RGB
- Dual redundant PSUs
- All active parts removable from the front for ease of maintenance
- Integral control system with dual redundant control option in 3RU frame
- Integrated Audio converters allowing mix and match of AES and Analog Audio in the same frame
- 34^2 HD-SDI and 4 levels of 36^2 Audio in a single 3RU frame
- Audio modify functions L↔R swaps, L→Both, Mono mix etc)
- Quiet switching of discrete AES/EBU digital audio option
- Interface with Pro-Bel's full range of control panels and MCM soft panels
- AES Sample Rate Converter option
- RS422: 128, 64 and 32 port

The Pyxis family of routers provides a highly flexible solution for all your small and medium size routing applications. Taking on board Pro-Bel's 30 years of experience producing top class products, Pyxis has all the features you would expect from a Pro-Bel router – excellent build quality, high reliability, and excellent value for money.

Pyxis features a wide range of signal cards in a choice of a 1RU or 3RU frames. All cards are removable from the front allowing ease of maintenance and removing the need for the router to be de-cabled should servicing be required. Both frames can be configured with dual redundant power supplies, and signal cards are available for all common broadcast formats, 1080p 3GBit/s, HD-SDI, SDI/ASI, Wideband Analog Video, Analog Audio, AES Audio and RS422. The SDI and Analog Video cards are also suitable for routing a wide range of Telco signals (STM-1, STM-4, T4, E4, T3, E3) as well as XVGA signals.

Video

Specifically designed for full 3GBit/s compliance, the Pyxis 3GBit/HD/SD range offers exceptional quality signal routing. Each router size is available as 3GBit/HD/SD capable, or alternatively in a more cost effective SD/ASI variant. Non-reclocking and reclocking options are available.

All video router cards are dedicated sizes, providing optimum signal integrity and a highly cost effective solution.

Wideband Analogue Video

Designed to handle traditional Analog signals as well as tri-level telecoms signals and XVGA routing, the analog video router family offers the highest possible performance. Options are available including clamping inputs and electronically adjustable cable equalization.

Audio

The audio router cards offer field expandability and mix & match between analog, AES and Madi I/O. Analog conversion uses programme quality converters on inputs and outputs.

Synchronous AES signals can be cleanly switched between AES and analog cards. Expansion between cards is via dedicated interconnections within the frame, allowing additional cards to be added in the field. Optional input sample rate converters allow for operation in a mixed sample rate environment.

MADI

The AES and Analog Audio cards are fitted with MADI input and outputs. This means with a simple configuration change, each card can be used as a 56/64 channel MADI encoder and 56/64 channel decoder on a single card. The encoder has dual outputs, and the decoder has dual redundant inputs with changeover. This offers a very compact and cost effective interface to MADI routing and mixing systems.

Control

Pyxis offers a range of control options. The editable database on the internal controller (which can be dual redundant in the 3RU frame), allows multi-level routing systems to be built from several Pyxis cards which can be fitted into one or more frames. The controller interfaces to Pro-Bel's full range of control panels which include simple BPX control up to XY panels with multi-level control and dial up sequences.

Control from existing Pro-Bel systems is also simple, as Pyxis supports the industry standard Pro-Bel General Switcher protocol, allowing you to link to external Pro-Bel controllers and many third party control systems. Ethernet and serial control, supporting several OEM protocols round off a wide range control options.

Interoperation with Pro-Bel's Morpheus Control and Monitoring (MCM) suite of software applications makes control from PC based soft-panels simple. The internal control architecture allows for much more comprehensive status and alarm reporting than has previously been possible. As MCM develops, and the Pyxis range grows, additional monitoring and control features will become available, ensuring that Pyxis is a market leading product for many years to come.

Technical Specification

1RU Frame

Size	1RU 19” rack mounting x 395mm deep
Module slots	1
Power supplies	External block type PSUs
Power	60W maximum

Control

Control	Single internal control card, 2 x RS485, panel/remote control ports, Ethernet for Pro-Bel General Switcher, SNMP or other OEM protocols.
Configuration	1 x RS232 (switchable)

Connections

Power	3 way IEC
Control	9 way D type socket
Expansion	RJ45
Video reference	BNC

3RU Frame

Number and	3RU 19” rack mounting x 395mm deep
Module slots	4
Power supplies	Dual, autosensing 110/230Vac. 50/60Hz
Power	250W maximum

Control

Control	2 x RS485, panel/remote control ports, Ethernet for Pro-Bel General Switcher, SNMP or other OEM protocols.
Configuration	1 x RS232 (option)
Expansion	RJ45

Connections

Power	3 way IEC
Control	9 way D type socket
Expansion	1 x RJ45
Video reference	BNC

SD Video

Inputs

Standard	Serial EBU Tech 3267E SMPTE 259M-ABCD
Impedance	75 Ω
Data rate	50-622Mbps
Return loss	>15dB 10MHz to 360MHz
Amplitude	800mV p-p nominal
DC offset	<5V
Equalizer	Automatic for up to 250m cable (Belden 8281, PSF 1/2M)

Outputs

Standard	Serial EBU Tech 3267E SMPTE 259M-ABCD
Impedance	75 Ω
Data rate	50-622Mbps
Return loss	>15dB 10MHz to 360MHz
Amplitude	800mV p-p ± 10%
DC offset	0V ± 0.5V

HD Video

Inputs

Standard	HD/SDI to SMPTE 292M and SDI to SMPTE 259M
Data rate	50MBit/s-3GBit/s
Return loss	>15dB to 1.485GBit/s
Equalizer	>120m typical Belden 1694A @ 1.485 GBit/s >90m typical Belden 1694 @ 3GBit/s

Outputs

Return loss	>15dB to 1.485GBit/s
Amplitude	800mV p-p ± 10%

Technical Specification

AES Digital Audio Inputs

Type	AES3-1992
Impedance	110Ω/optional 75Ω
Connector	68 way high density D-type

AES Digital Audio Outputs

Type	AES3-1992
Impedance	110Ω/optional 75Ω
Connector	68 way high density D-type

Performance

Digital input - Digital output

Sample Rate	24 to 96kHz (non re-clocking, non re-framing) 32 to 48kHz (re-clocking and re-framing)
Worldlength	16 to 24 bit
Non Reclocking Perf	Transparent to all bi-phase mark data
Re-frame Performance	TBC's all inputs, outputs AES-11 compliant Channel status data re-written in this mode

Analog Inputs

Type	Electronically balanced
Impedance	10kΩ
Max Signal Level	+24dBu
Connector	68 way high density D-type

Analog Outputs

Type	Electronically balanced
Output Impedance	<40Ω
Max Output Level	+24dBu into 10k
Connector	68 way high density D-type

Analog input - Analog output

Gain Stability	±0.2dB/24 hours
Frequency Response	±1dB 20Hz to 22kHz
THD + N	<0.1% at 1kHz, +18dBu <0.1% at 1kHz, 0dBu
Dynamic Range	>105dB (AES 17-1991)
Signal to Noise Ratio	>105dB
Crosstalk	<-90dB all hostile at 16kHz

Mixed Analog/Digital Performance

Digital input - Analog output

Input Wordlength	16 to 24 bit
Converter	20 bit, Delta Sigma
Gain Stability	±0.2dB/24 hours
Frequency Response	±1dB 20Hz to 22kHz
THD	<0.1% at 1kHz, +18dBu <0.1% at 1kHz, 0dBu
Signal to Noise Ratio	>106dB @ +24dBu = 0dBFS
Crosstalk	<-90dB all hostile at 16kHz

Analog input - Digital output

Sample Rate	48kHz (free running or locked to reference)
Output Wordlength	20 bit
Converter	20 bit, delta Sigma
Performance	Outputs AES-11 timing compliant
THD	0.05% @ +18dBu
Signal to Noise Ratio	106dB @ +24dBu = 0dBFS

Specifications subject to change

Ordering Information

Please contact Pro-Bel sales or your local Pro-Bel agent for order codes.