

PZ4 Series

4-Channel Digital Audio, Data & Contact closure
Fibre-optic multiplex & transmission system



Description

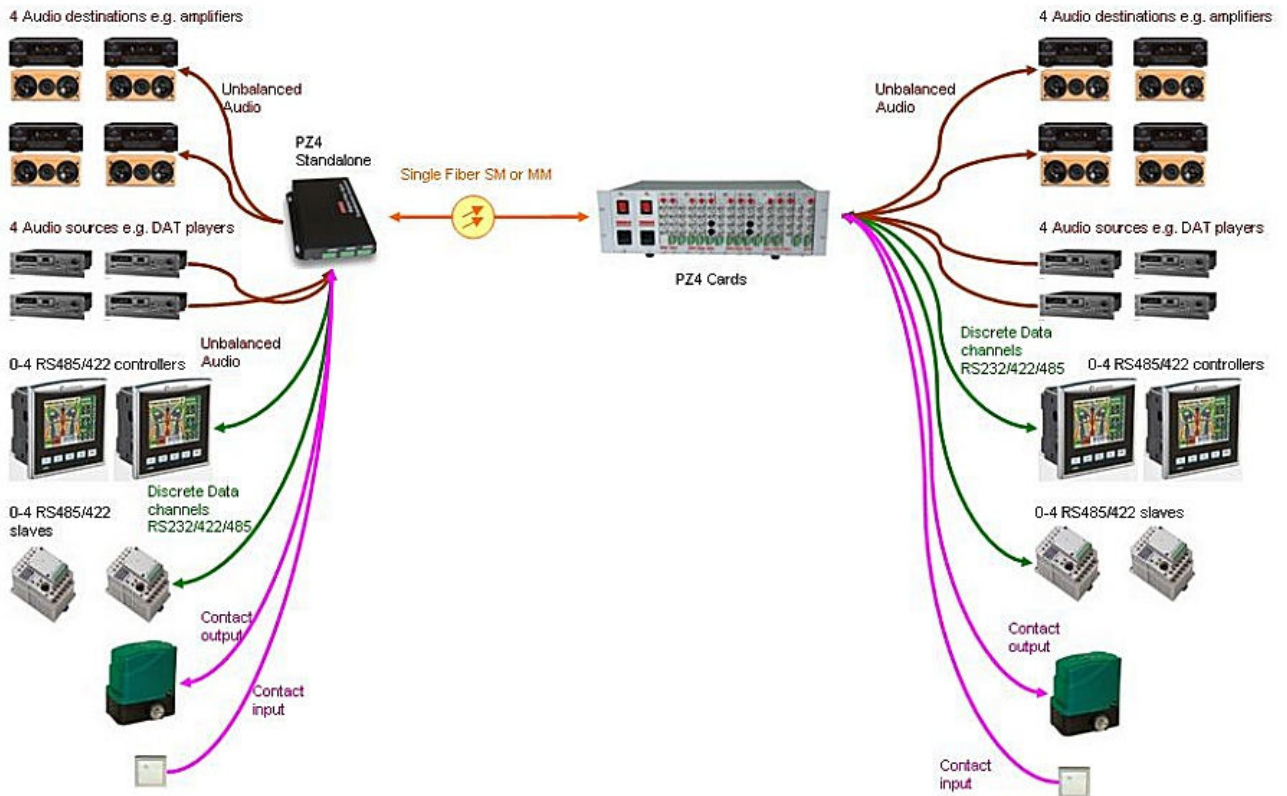
Precision's PZ4 series transmits 4 channels of unbalanced line level Audio, RS485/422 Data and Contact Closure signals over multi-mode or single-mode fibre-optic cable over distances of up to 20km. The PZ4 series sends four line level Audio channels using 24-bit digital uncompressed encoding per channel for the best possible line level audio quality under any condition. The PZ4 also sends and receives 4-channels of RS485/422 data, and a contact closure signals on the same simplex optic fibre. The PZ4 is field-hardened for operation in harsh field conditions with very wide temperature swings. The PZ4 series is available as standalone units, or rack-mount cards for high density applications.

Key Features

- 4-Channel 24 Bit uncompressed digital audio encoding and multiplexing, with 48KHz sampling rate
- 600 Ohm out / 10k Ohm in Unbalanced Audio
- -10dBV nominal line level
- 1x FC Optical Connector, simplex fibre
- 4-Channel Bi-Directional Manchester/Bi-phase, RS-422, RS-485 (2 & 4 wire) Data
- High optic budget 15dB for multi-mode and 22dB for single-mode fibre
- Hot-swap 19" rack-mount card or standalone units
- Supplied with universal 12V switch-mode mains power brick

Typical applications

Typical application: 4 channels Bi-directional Audio, Data and CC



Optic

Optic wavelength	Upstream:	1310nm
	Downstream:	1550nm
Optic transmit power	Single-mode:	-3dBm typ. +/- 5dB
	Multi-mode:	-13dBm typ. +/-5dBm
Optic receive sensitivity		-30dBm min
Optic budget	Single-mode:	22 dB
	Multi-mode:	12 dB
Optic Connector		FC

Audio

Audio channels	4
Sampling rate	48KHz
Sampling resolution	24-bit uncompressed
Audio impedance	600Ω unbalanced
Input bandwidth	20Hz – 23KHz
SNR	>90dB (quantified)

Data

Data channels	4 Bi-Directional
Data formats	RS-232 (3-wire) option RS-422 (4-wire) RS-485 (2-wire)
Data rate	300Kbps max
Termination	120Ω
Data Direction	Bi-directional
BER	10 E-9

Contact Closure

Contact channels	1 Bi-Directional
Input Voltage	0-12V DC Reference to Case Ground
Output	Relay out potential free C, NC, NO (Common, Normal open, Normal Close)
Input impedance	1KΩ
Switching speed	500mS max

System

BER	10 E-9 max
MTBF	> 100000 Hr

Dimensions

12V standalone	179mm x 130mm x 29mm
Rack-mount card	3U, 1 slot (of 16)

Power

12V standalone	Universal AC adapter	110-220V AC 50-60Hz	12V DC 24Watt max
Rack-mount card	Rack power		24Watt max





Environmental

Storage temperature	-40°C to +85°C
Operating temperature	-40°C to +70°C
Humidity	0 to 95% (non cond)

Quality standards

ISO 9001 certified
CE Mark
FCC Certified

Ordering information

Model	Function	Fibre	Description
4-Channel Audio, Data & CC Transceivers, Multi-mode			
PZ4AXDXCX-MM-SA12		1xMM	4ch Audio T&RX + 4ch Data T&RX, Contact T&RX, MM, 1Km, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PZ4AXDXCX-MM-RM		1xMM	4ch Audio T&RX + 4ch Data T&RX, Contact T&RX, MM, 1Km, FC, Single Fiber, Rack-mount, powered from rack.
4-Channel Audio, Data & CC Transceivers, Single-mode			
PZ4AXDXCX-SM-SA12		1xSM	4ch Audio T&RX + 4ch Data T&RX, Contact T&RX, SM, 20Km, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PZ4AXDXCX-SM-RM		1xSM	4ch Audio T&RX + 4ch Data T&RX, Contact T&RX, SM, 20Km, FC, Single Fiber, Rack-mount, powered from rack.

Note: Function and fiber type must be the same for transmitter and receiver to work.

Data Sheet Version

1.2

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