PX24

PIXEL CONTROLLER
DATA SHEET

PRODUCT OVERVIEW

The PX24 is a small but powerful pixel LED controller driving up to 6 universes of data on each of its 4 outputs, for a total of 24 universes of LED pixel control, via its easily accessible and removable screw terminal blocks. Each pixel output handles a sizable current load and is fully equipped with Smart Electronic Fusing, so you'll never have to replace a fuse again.

KEY FEATURES

- 24 UNIVERSES OF ART-NET OR SACN
- 4 POWERED PIXEL OUTPUTS
- OVER 60+ PIXEL PROTOCOLS SUPPORTED
- MICRO-SD CARD SLOT FOR RECORD & PLAYBACK
- DUAL GIGABIT ETHERNET PORTS
- AUXILIARY PORT FOR DMX512 IN/OUT
- CONFIGURE USING ANY WEB BROWSER OR LED CTRL SOFTWARE

- SMART ELECTRONIC FUSES ON PIXEL OUTPUTS
- ELECTRICAL FAULT PROTECTION ON ALL PORTS
- CURRENT MEASURING ON ALL PIXEL OUTPUTS
- EXTREME REFRESH RATES
- UNIVERSE DATA HARDWARE FIREWALL
- AUTO SYNCHRONISATION TO DATA SOURCE
- ELECTRONIC FUSE CONTROL AND MONITORING ON PIXEL OUTPUTS

- GAMMA CORRECTION NOW SUPPORTED ON 8 BIT
- PIXELS DITHERING TO ACHIEVE IMPROVED GAMMA CORRECTION
- WEB-BASED MANAGEMENT INTERFACE
- IMPORT/EXPORT OF HARDWARE CONFIGURATION PROFILES
- HTTP AND WEBSOCKET API
- ADVANCED DIAGNOSTIC INFORMATION AND STATISTICS

X LED CTRL

WWW.LEDCTRL.COM

A CLOSER LOOK AT THE CONTROLLER

DUAL GIGABIT ETHERNET PORTS

Simplify your network infrastructure by daisy chaining PX24 controllers together. Maintain high network reliability by optionally connecting a redundant Ethernet line to any loop with a suitable switch.

Ethernet ports are fully equipped with a Universe Data Hardware Firewall to ensure your PX24 can constantly perform at its peak.

RECORD AND PLAYBACK

When not using LED CTRL software (or similar) the in built Web Management Dashboard unleashes the potential of the PX24 device to independently drive light shows without a computer or any source of live data.

The Dashboard allows users to record and play back pixel shows from the PX24 using the inbuilt microSD slot. Design your own breathtaking pixel shows, record them directly onto the microSD card and play them back as many times as you wish.

POWER MANAGEMENT

All pixel outputs are capable of up to 7A of pass through current and are equipped with Smart Electronic Fuses that automatically reset when a fault is cleared.

The solid aluminium base of the enclosure doubles as a heatsink, dissipating heat generated from high current installations and maintaining device integrity in high ambient temperatures.

FAULT PROTECTION

Features electrical fault protection on all ports resulting in higher reliability and fewer equipment failures. See details on next page.

AUXILIARY PORT

Versatile RS485 Auxiliary port can be used as either an input or an output.

As an output, connect DMX512 devices to the port and control them via sACN or Art-Net.

As an input, connect a DMX512 source directly to the PX24 and use DMX512 as the data source for your pixels or to trigger other operational behaviour.

5 YEAR WARRANTY

For your absolute peace of mind, the PX24 come with a 5-year warranty. All products need to be used and installed in accordance with their designed purpose and operating environment.

CERTIFICATIONS

SPECIFICATIONS

PHYSICAL

Ethernet Ports	2x 10/100/1000 Mbit/s
MicroSD Card Slot	1
Auxiliary Port	1x RS485 Input/Output
Pixel Outputs	4x Powered
Dimensions (inc. connectors)	126.5 x 119 x 42mm
Weight	0.3kg
Enclosure	Aluminium + ABS
Mounting	Wall & Din-Rail Mountable

FAULT PROTECTION

|	
Electrostatic Discharge (ESD)	All Ports Protected
Power Input	Reverse Polarity Protection
Auxiliary Port	+/- 48V DC fault protection
Pixel Output Clock/Data	+/- 36V DC fault protection
Pixel Output Power	Self-resetting over current and short circuit protection

PIXEL DATA

	Normal Mode	Expanded Mode
Pixel Outputs	4	8
RGB Pixels per Output	1020	510
RGBW Pixels per Output	768	384
Universes per Pixel Output	6	3
Total Pixel Universes	24	24

POWER

Input Power	5V – 24V DC
Per Output Current Limit	7A
Total Current	28A

OVERALL DIMENSIONS
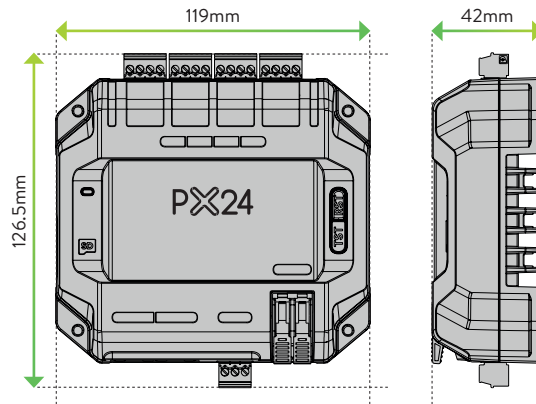
MOUNTING DIMENSIONS
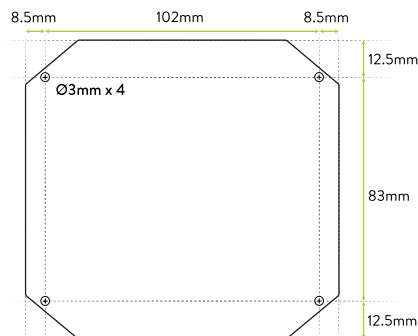
THERMAL

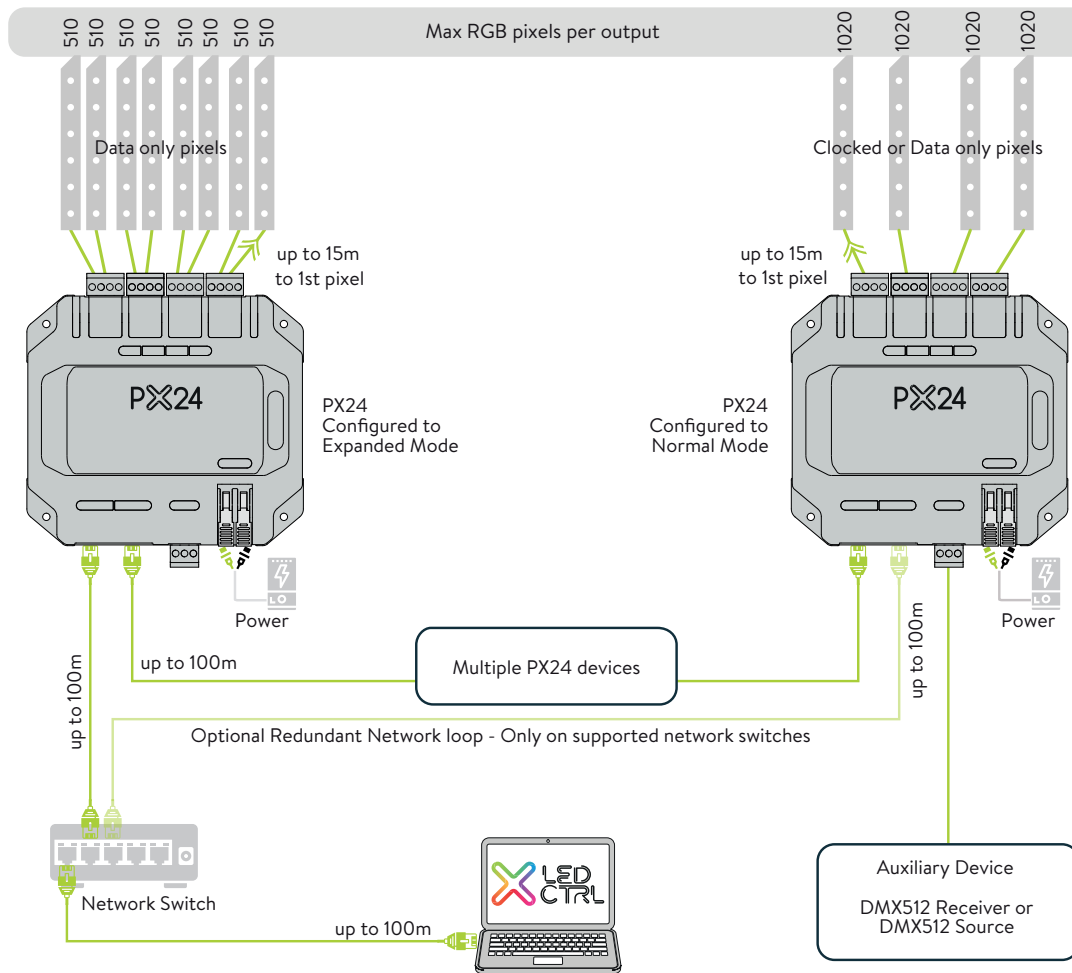|	
Storage Temperature	-20°C to +70°C
Ambient Operating Temperature	-20°C to +70°C
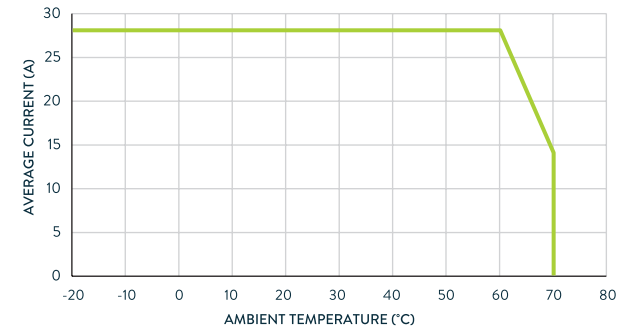
TESTING STANDARDS

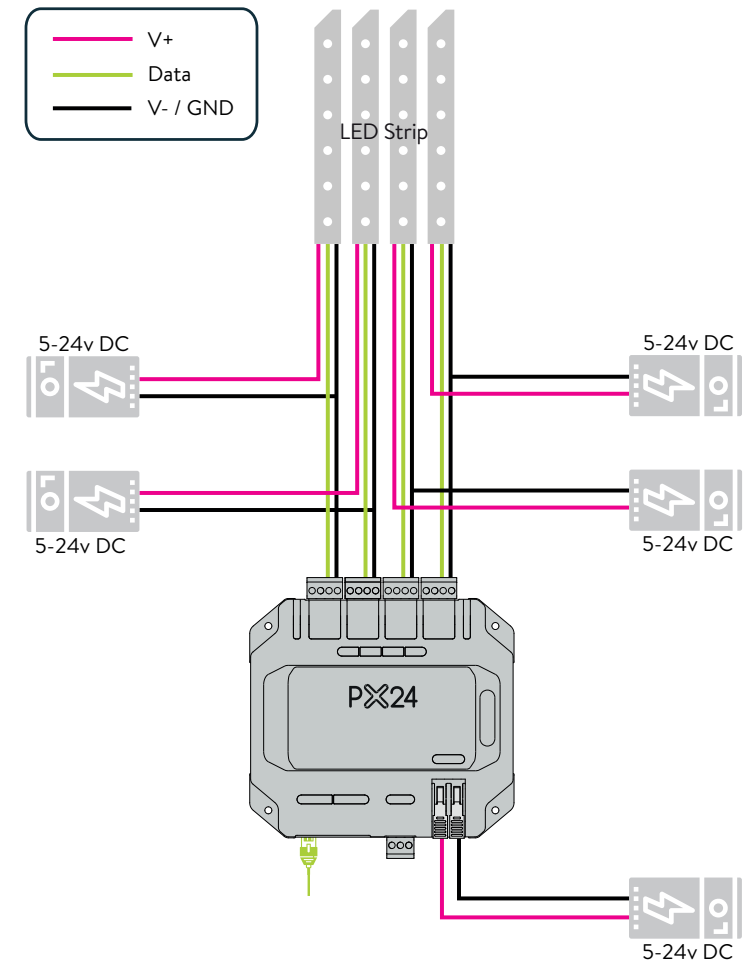|	
Audio/Video & ICTE - Safety Requirements	UL 62368-1
Radiate & Conducted Emissions	EN 55032 & FCC Part 15
Multimedia Immunity	EN 55035

CERTIFICATIONS & MARKS

North America	ETL Listing (Equivalent to UL Listing)
Europe	CE
North America	FCC
Canada	ICES3
Australia & New Zealand	RCM
United Kingdom	UKCA

WIRING DIAGRAM & SYSTEM OVERVIEW

TYPICAL SYSTEM WIRING DIAGRAM

Max RGB pixels per output

510 510 510 510 510 510 510 510

1020 1020 1020 1020

Data only pixels

Clocked or Data only pixels

up to 15m to 1st pixel

up to 15m to 1st pixel

PX24
Configured to
Expanded Mode

PX24
Configured to
Normal Mode

Power

Power

up to 100m

up to 100m

up to 100m

Multiple PX24 devices

Optional Redundant Network loop - Only on supported network switches

Network Switch

up to 100m

Auxiliary Device

DMX512 Receiver or
DMX512 Source

OUTPUT PORT POWER BYPASS WIRING

	V+
	Data
	V- / GND

LED Strip

5-24v DC

5-24v DC

5-24v DC

5-24v DC

5-24v DC

OUTPUT PORT POWERED WIRING

CONNECTIONS TO PIXELS

Pixels	Clocked
Expanded Mode	Disabled

Positive
Clock
Data
GND
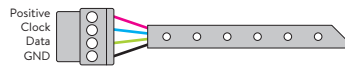
Pixels	Data Only
Expanded Mode	Disabled

Positive
Data
GND
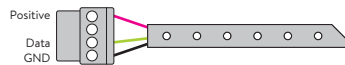
Pixels	Data Only
Expanded Mode	Enabled

Positive
Data 1
Data 2
GND
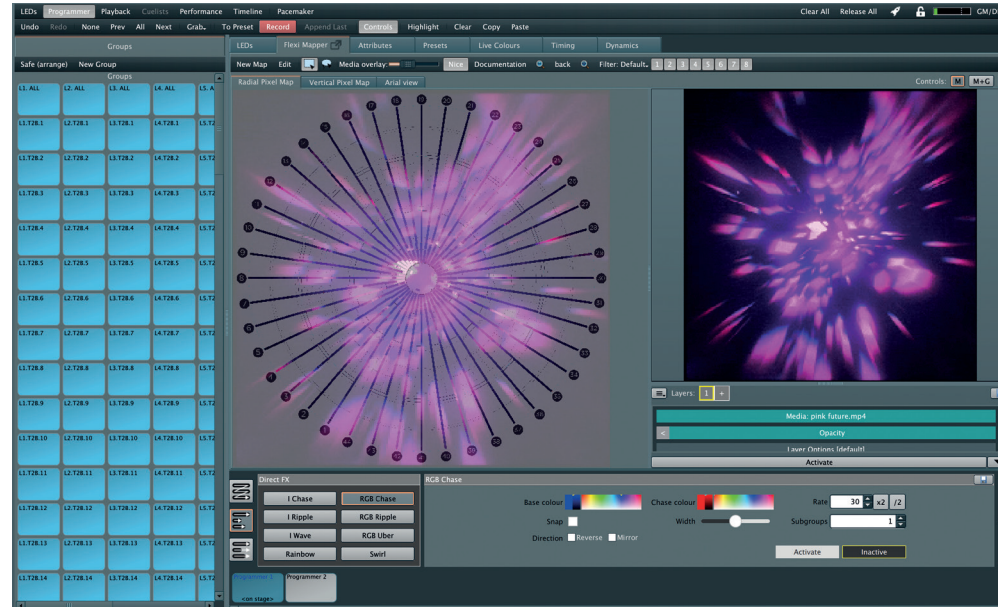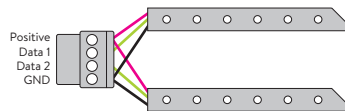
LED CTRL SOFTWARE

Using the PX24 with LED CTRL software provides the easiest configuration method and maximum functional benefits.

LED CTRL software is a powerful LED lighting solution that revolutionises your lighting control experience by simplifying the design and commissioning processes.

It empowers you to communicate, plan, commission and program small to large scale projects visually and using drag and drop tools, supporting efficient and effective project delivery.