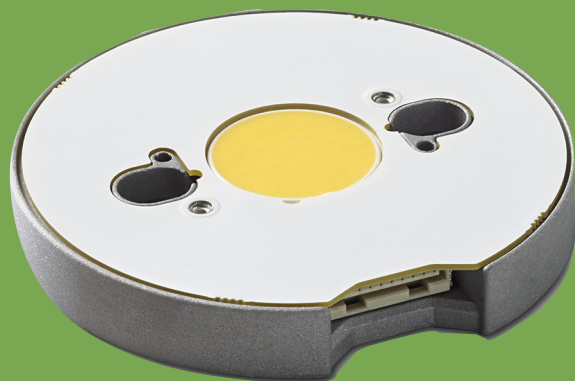


xenio™

XENIO POINT 18MM

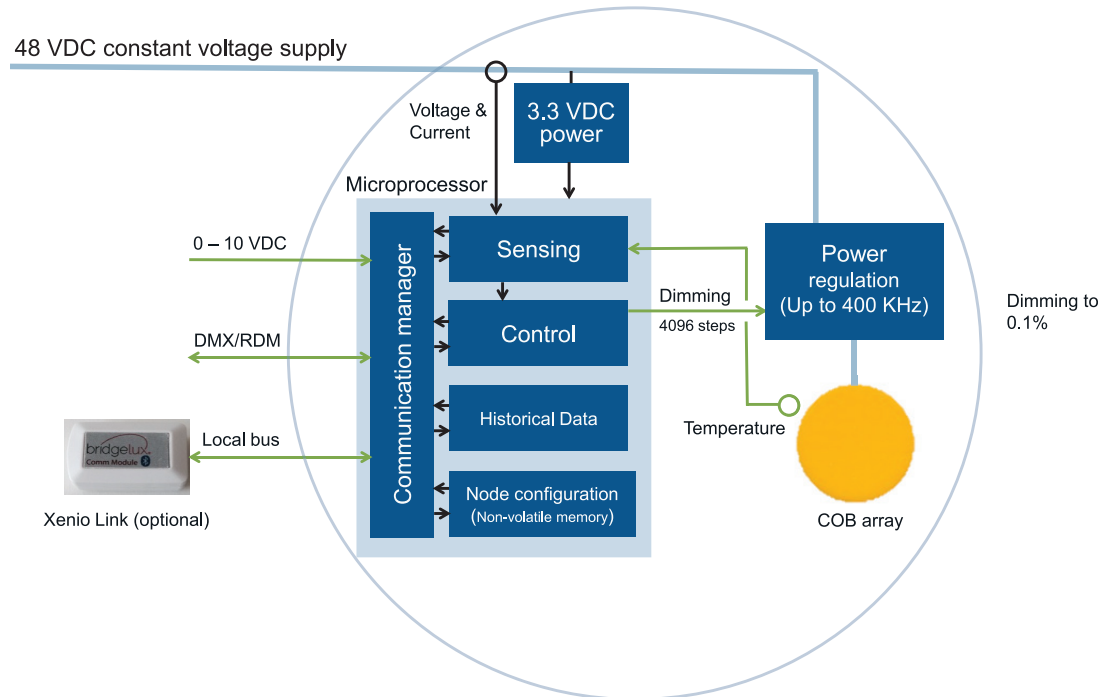
LED LIGHT SOURCE





Xenio Point is a new LED module platform that integrates local intelligence and communications capabilities with LED light sources to deliver superior light quality, high efficacy, and value.

- Current regulation is managed internally, allowing the use of constant 48Vdc voltage power supplies
- The industry's best dimming performance: Both flicker and stroboscopic effects are eliminated under all conditions. Internal device-side dimming provides greatly enhanced dimming precision, down to 0.1% of full brightness.
- Integrated network interfaces eliminate the cost and space required for network adapters: 0-10V Dimming Control, DMX512/RDM and Bluetooth Smart interfaces are supported.
- Automatic internal temperature monitoring and a thermal protection algorithm protects from damage caused by operational over-temperature
- Historical data is logged and is available for retrieval through its network interfaces
- Market-leading efficacy at all brightness levels
- Compatible with Bridgelux Vero Series® optics
- Zhaga Book 3 compliant mounting holes



POINT 18 SPECIFICATIONS

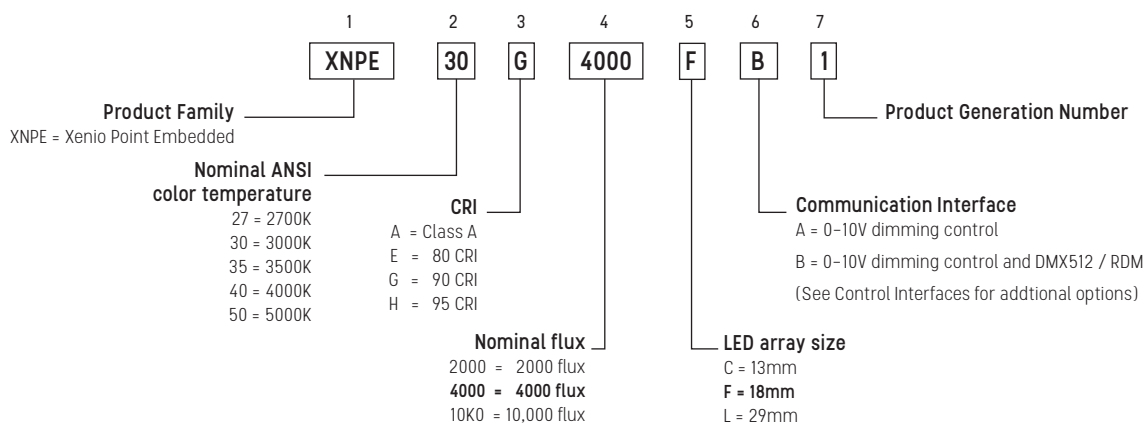
| PART NUMBER* | COLOR TEMP | MINIMUM CRI | VOLTAGE REQUIRED | STANDBY POWER AT 0% BRIGHTNESS | MINIMUM BRIGHTNESS 0.1% | | MAXIMUM BRIGHTNESS 100% | | |
|-------------------|------------|-------------|------------------------------|--------------------------------|-------------------------|--------------|-------------------------|----------|--------------|
| | | | CONSTANT VOLTAGE (+ OR - 5%) | POWER | POWER | LIGHT OUTPUT | POWER | EFFICACY | LIGHT OUTPUT |
| XNPE-27G4000-F-B1 | 2700 K | 90 | 48 Vdc | 150 mW | 190 mW | 4 lm | 42 W | 94 lm/W | 3900 lm |
| XNPE-30E4000-F-B1 | 3000 K | 80 | 48 Vdc | 150 mW | 190 mW | 5 lm | 42 W | 122 lm/W | 5100 lm |
| XNPE-30G4000-F-B1 | 3000 K | 90 | 48 Vdc | 150 mW | 190 mW | 4 lm | 42 W | 99 lm/W | 4200 lm |
| XNPE-35E4000-F-B1 | 3500 K | 80 | 48 Vdc | 150 mW | 190 mW | 5 lm | 42 W | 126 lm/W | 5300 lm |
| XNPE-35G4000-F-B1 | 3500 K | 90 | 48 Vdc | 150 mW | 190 mW | 4 lm | 42 W | 107 lm/W | 4500 lm |
| XNPE-40E4000-F-B1 | 4000 K | 80 | 48 Vdc | 150 mW | 190 mW | 5 lm | 42 W | 128 lm/W | 5400 lm |

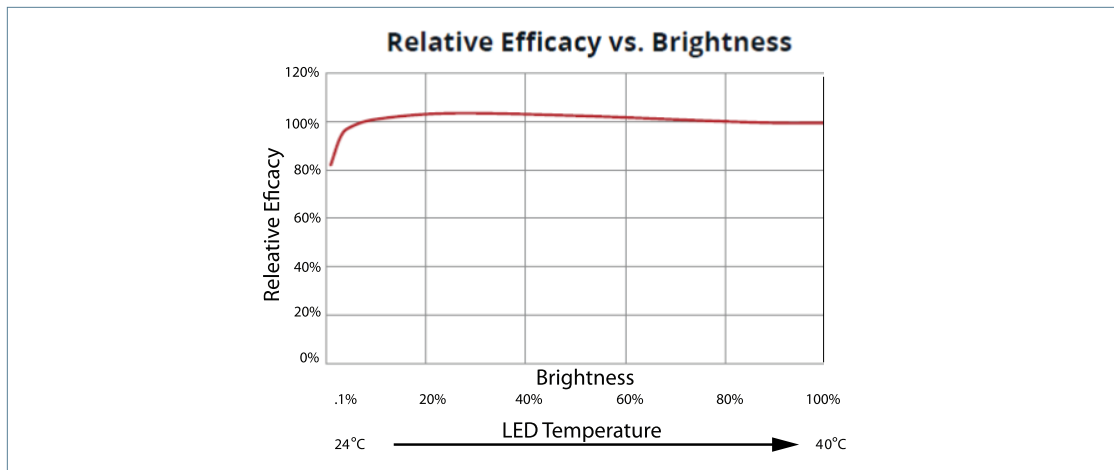
*All Point products are also available in "A" Communication Interface versions

Xenio maintains a $\pm 7\%$ tolerance on lumens measurements

For wiring harness part numbers, please see Control Interface diagrams

EXAMPLE





ABSOLUTE MAXIMUM RATINGS

| | |
|------------------------------------|--|
| STORAGE TEMPERATURE | Storage Temperature -40°C to 105°C |
| OPERATING TEMPERATURE* | Operating Temperature $T_c = 85^\circ\text{C}$ |
| OPERATING ENVIRONMENT REQUIREMENTS | For use in dry locations only |
| LED DRIVE FACTOR | LED Drive Factor: 1.5X |

*All Xenio Point LED light sources are protected from operational over-temperature and regulate power applied to its LED array automatically

POWER SUPPLY REQUIREMENTS

| | |
|-------------------|--|
| POWER SUPPLY TYPE | Constant Voltage NEC Class 2 rated |
| VOLTAGE OUTPUT | 48 Vdc with a regulation accuracy of + or - 5% |
| POWER OUTPUT | 42 Watts minimum, 96 watts per channel maximum |

Constant voltage supplies differ from constant current supplies in that the output voltage is held steady regardless of power load. Please contact Xenio for a list of 48Vdc power supplies.

POWER-UP BEHAVIOR

Xenio Point LED light sources are factory defaulted to provide 100% brightness when 48Vdc is applied to turn on the device. If using 0-10Vdc for dimming control, the Xenio Point LED light source, when powered-up, will turn on at the dim level (voltage) present on its 0-10Vdc Dimming Control interface.

CERTIFICATIONS

UL 8750 LED Light Sources for Use in Lighting Products, intended for Class 2 circuits equipped with constant voltage input Class 2 rated power supplies

CSA C22.2 No. 250.13 LED Equipment for Lighting Applications

FCC Part 15 Radio Frequency Interference

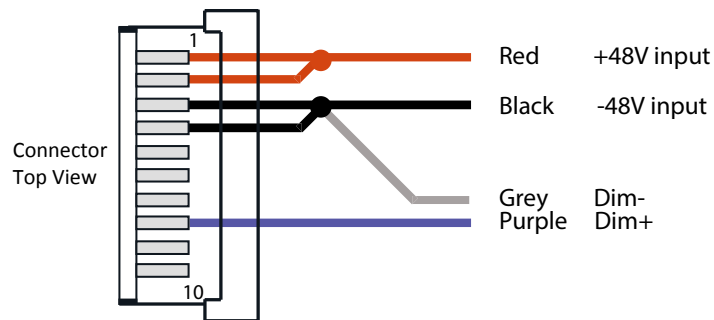
CONTROL INTERFACES

Xenio Point is available with multiple control interfaces, providing the ability to finely control brightness and other device features from remote interfaces or consoles.

0-10V DIMMING CONTROL

All Xenio Point “A” and “B” models support 0-10V Dimming Control

Xenio Point 0-10V Dimming Control is a simple to use low voltage two wire interface conforming to IEC 60929 annex E and supports industry standard 0-10V dimming control devices from manufacturers such as Leviton, Lutron and Wattstopper. When the 0-10V interface is not connected to a 0-10V controller (open circuit), Xenio Point operates at maximum brightness.

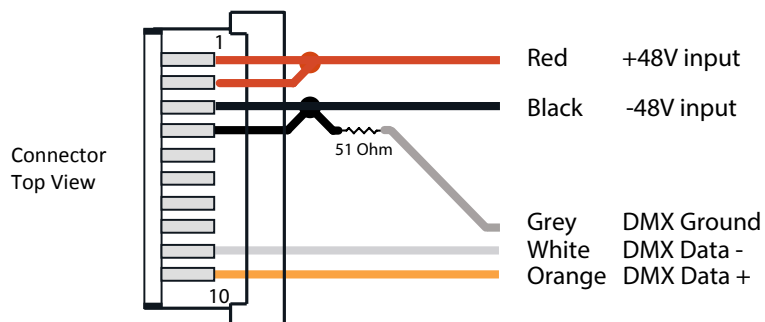


Xenio Point Cable part # XNWH-A-241 61 cm / 24" long

DMX512 RDM

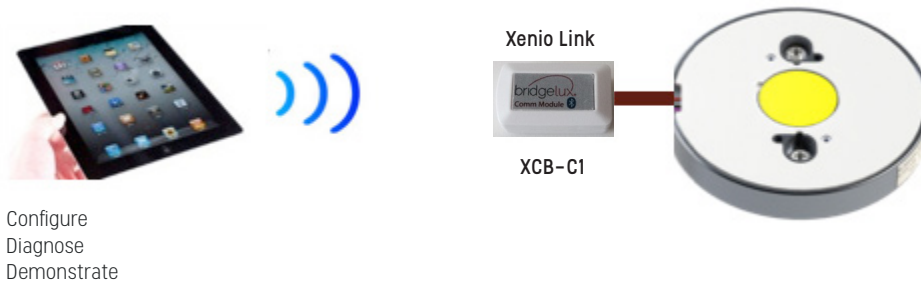
Xenio Point “B” models support DMX512/RDM

DMX512/RDM is a low voltage digital interface popular in architectural dimming applications.



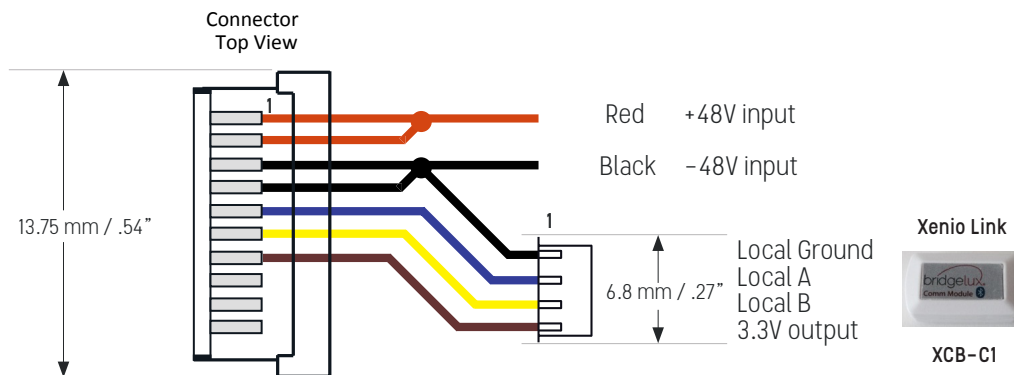
Xenio Point Cable part # XNWH-D-241 61 cm / 24" long

BLUETOOTH SMART



All Xenio Point "A" and "B" models support optional Bluetooth Smart

Xenio Point supports Bluetooth Smart with a rich set of user-settable control parameters and user-readable status parameters with an iOS application for configuring Xenio Point. A tablet or phone equipped with iOS 9 or later and Bluetooth Smart is required (iPhone 4S and later, iPad Mini, iPad 3rd gen and later). Xenio Point provides dimming resolution of .1% when operating in Bluetooth Smart mode.



Xenio Point Cable part # XNWH-L-241 power wires are 61 cm / 24" long
Xenio Link wires are 30 cm / 12" long

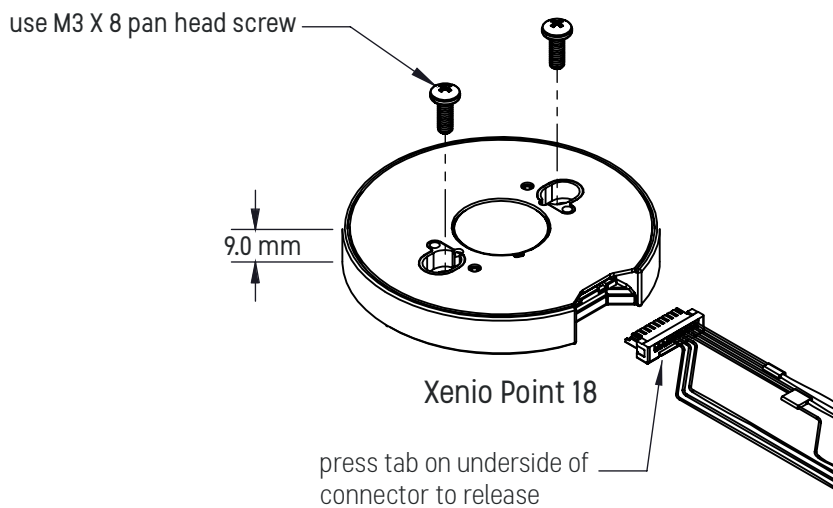
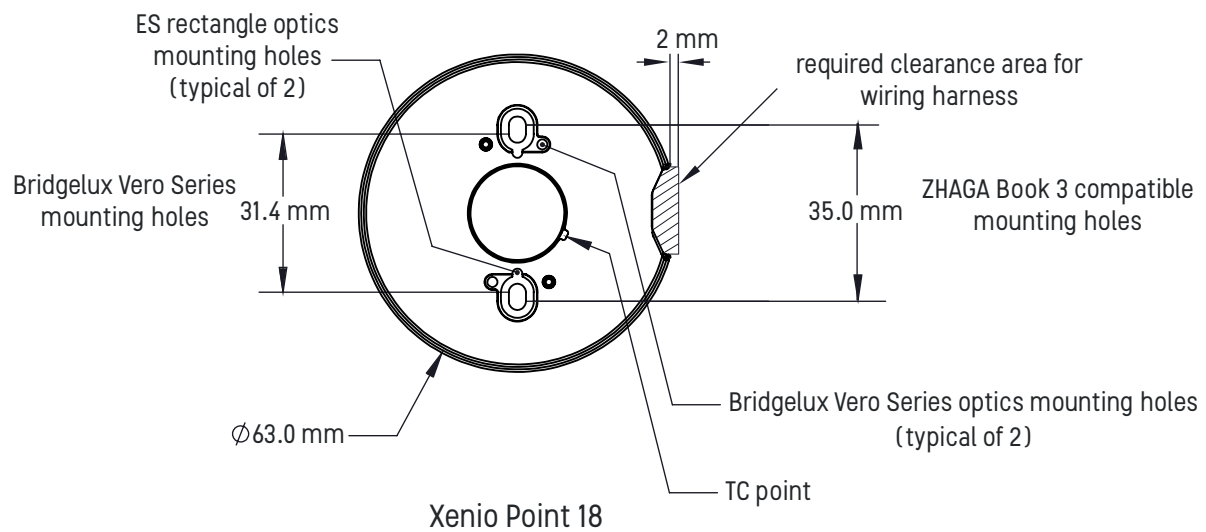
STATUS AND CONFIGURATION

| STATUS PARAMETERS | DEFINITION | FORMAT |
|---------------------------|--|---|
| STATUS | LED Array Status | 0 = LED Array is Off 1 = LED Array is On |
| ON TIME | Amount of time module has been in the ON state | Each unit = 1 minute |
| CURRENT BRIGHTNESS | Current LED brightness level | Each unit = 0.1% |
| POWER | Instantaneous measurement of power | xx.xx Watts |
| LED TEMP | Temperature at the edge of the LED array | xx °C |
| ON TIME 90 | Minutes of operation at or higher than 90°C | Each unit = 1 minute |
| ON TIME 80 | Minutes of operation between 80.0°C and 89.9° C | Each unit = 1 minute |
| ON TIME 70 | Minutes of operation between 70.0°C and 79.9°C | Each unit = 1 minute |
| ON TIME 60 | Minutes of operation between 60.0° C and 69.9° C | Each unit = 1 minute |
| ON TIME 50 | Minutes of operation between 50.0°C and 59.9° C | Each unit = 1 minute |
| HW MODEL VERSION | Hardware model version number | xx |
| LED VERSION | LED Array version number | xx |
| FIRMWARE VERSION | Firmware version number | FW Build FW Minor FW Major |
| UCID | Unique identifier | xxxxxxxx |

| CONFIGURATION PARAMETERS* | DEFINITION | DEFAULT VALUE |
|-------------------------------|---|------------------------------------|
| TARGET BRIGHTNESS | Set brightness level | 100% |
| OUTPUT HIGH LIMIT | Sets the maximum brightness level | 100% |
| OUTPUT LOW LIMIT | Sets the minimum brightness level | 0% |
| DIMMING CURVE | 1 = linear 2 = logarithmic 3 = custom | 2 |
| 0-10 DIM TO OFF | 0-10 Interface behavior when dimming down : 0: When dimmer is adjusted to minimum, LED output will dim to minimum 1: When dimmer is adjusted to minimum, LED will turn OFF | 0 |
| FADE TIME | Time to elapse in 1/10 seconds between current brightness level to target brightness level | 0-10V: 1 DMX: 1 Bluetooth: 1 |
| OVER TEMP LOW | Below this temperature value, thermal protection will be de-activated | 55°C |
| OVER TEMP HIGH | Above this temperature value, thermal protection will be activated | 85°C |
| DMX ADDRESS | Sets the DMX slave address | 001 |
| DMX SLAVE NUM CHANNELS | Sets the number of channels | 001 |

*All Configuration Parameters except **TARGET BRIGHTNESS** are stored in non-volatile memory.

MECHANICAL SPECIFICATIONS



PRECAUTIONS

CAUTION: CHEMICAL EXPOSURE HAZARD

Exposure to some chemicals commonly used in luminaire manufacturing and assembly can cause damage to the LED array. Please consult Application Note AN31 for additional information.

CAUTION: EYE SAFETY

Eye safety classification for the use of Xenio LED arrays is in accordance with IEC specification EN62471: Photobiological Safety of Lamps and Lamp Systems. Xenio LED arrays are classified as Risk Group 1 (Low Risk) when operated at or below the maximum drive current. Please use appropriate precautions. It is important that employees working with LEDs are trained to use them safely.

CAUTION: RISK OF BURN

Do not touch the Xenio LED light source or yellow resin area during operation. Allow the array to cool for a sufficient period of time before handling. The Xenio LED light source may reach elevated temperatures that can burn skin when touched.

CONTACT WITH LIGHT EMITTING SURFACE (LES)

Avoid any contact with the LES. Do not touch the LES of the LED light source or apply stress to the LES (yellow phosphor resin area). Contact may cause damage to the LED array. Optics and reflectors must not be mounted in contact with the LES (yellow phosphor resin area). Optical devices may be mounted on the top surface of the plastic housing of the LED light source. Use the mechanical features of the LED light source housing, edges and/or mounting holes to locate and secure optical devices as needed.

DESIGN RESOURCES

The Application Notes listed here provide deep technical information for thermal management, handling and optical considerations applicable to Xenio Point LED Light Sources:

Bridgelux Application Note AN30 Thermal Management

Bridgelux Application Note AN31 Handling and Assembly of LED Arrays

Bridgelux Application Note AN36 Optical Considerations for LED Arrays

ABOUT XENIO

Xenio Corporation is activating the most ubiquitous physical infrastructure in the world – lighting – to create meaningful links between people and places, and inspire a new class of customer experiences enriched by data. Headquartered in San Francisco, California, Xenio's open lighting and analytics platform powers a new generation of applications that connect businesses and their customers with the simple flexibility of software. For more information about Xenio, visit www.xeniorcorp.com.

CONTACT XENIO



Xenio Corporation
435 Pacific Avenue #350
San Francisco, CA 94133

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