

BXG100

LINEAR GRAZER

MAXIMUM OUTPUT

DATASHEET
SPECIFICATIONS

The BXG 100 is a high-performance architectural linear LED grazer engineered for façade, bridge and infrastructure lighting applications where maximum output and long-term reliability are essential.

Constructed from corrosion-resistant anodised aluminium with a tempered glass, the BXG 100 is designed to perform in demanding outdoor environments. Rated IP66 and IK08, it delivers dependable operation in harsh conditions while maintaining exceptional optical performance.

Available in multiple lengths, beam angles and colour configurations, with support for DMX and LED CTRL X-Stream control technologies, the BXG 100 provides a flexible solution for architectural, landscape and large-scale façade lighting projects.



At a glance

Emitters

RGBW
(W = 2400K, 2700K
3000K, 3500K, 4000K
5000K, 6000K)

OR

RGBA

OR

RGB

OR

Dynamic
White (DW)
(2200K to 5000K)

OR

White
(2400K, 2700K
3000K, 3500K, 4000K
5000K, 6000K)

Fixture Dimensions

Controls

Voltage

100 – 277V AC

Protection

Ingress – IP66
Impact – IK08

Temperature

-40°C to 50°C
-40°F to 122°F

Optics

Mount Dimensions

FIXTURE PRODUCT CONFIGURATOR

Prefix	Model	Length	LED Colour	White CCT	Control	Beam Angle	Power	Voltage	Housing Colour	Mounting
BXG	100	300 – 300mm 600 – 600mm 900 – 900mm 1000 – 1000mm 1200 – 1200mm 1500 – 1500mm	RGBW RGBA RGB DW – Dynamic White (22K - 50K) W – White (24K - 60K)	24K – 2400K 27K – 2700K 30K – 3000K 35K – 3500K 40K – 4000K 50K – 5000K 60K – 6000K	D – DMX S – SPI P – PWM X – X-Stream XB – X-Stream Boosted	10 – 10° 25 – 25° 40 – 40° 60 – 60° 80 – 80° 1.3 – 10°x35° 1.4 – 10°x40° 1.6 – 10°x60° 3.6 – 30°x60° 4.7 – 40°x70°	30 – 30W 60 – 60W 90 – 90W 100 – 100W 150 – 150W	AC – 100-277 V AC	A – Anodised Aluminium C – Custom RAL	S – Swivel Mount L – Lockable Mount

EXAMPLE: BXG – 100 – 300 – RGBW – 24K – X – 60 – 30 – AC – A – S

Note*:
XB Booster lives in the inside of the product. Refer to PXT/R page for differences between X and XB.
Need an external controller to run on PWM

WWW.LEDCTRL.COM

LED CTRL, 1/483 BALMAIN
LILYFIELD, NSW 2040, AUSTRALIA

SPECIFICATIONS SUBJECT TO CHANGE
WITHOUT NOTICE. VISIT WWW.LEDCTRL.COM
FOR THE MOST CURRENT SPECIFICATIONS.
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LINEAR GRAZER

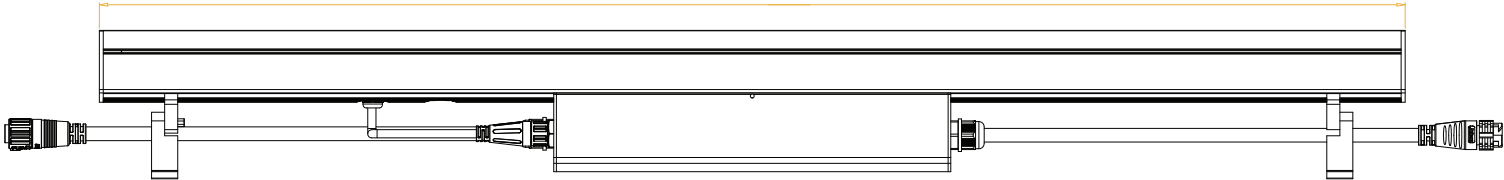
MAXIMUM OUTPUT

FIXTURE SPECIFICATIONS

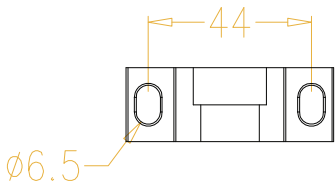
ELECTRICAL	POWER CONSUMPTION	30W (300MM), 60W (600MM), 90W (900MM), 100W (1000&1200MM), 150W (1500MM)	
	OPERATING VOLTAGE	100-277V AC	
	OPERATING TEMPERATURE	-40°C TO 50°C (-40°F TO 122°F)	
	STORAGE TEMPERATURE	-20°C TO 70°C (-4°F TO 158°F)	
PHYSICAL	STANDARD FIXTURE DIMENSIONS	L: 300MM/600MM/900MM/1000MM/1200MM/1500MM – W: 56MM – H: 114MM	
	FIXTURE WEIGHT	1.63KG (300MM) – 3.3KG (600MM) – 4.88KG (900MM) – 5.41KG (1000MM) – 6.5KG (1200MM) – 8.12KG (1500MM)	
	HOUSING COLOUR	ANODISED ALUMINIUM, BLACK, WHITE, CUSTOM RAL (WITH TEMPERED GLASS LENS)	
	FINISH	ANODISED BRUSHED ALUMINIUM, CORROSION RESISTANT	
	IK RATING	IK08	
	IP RATING	IP66 – SUITABLE FOR HIGH PRESSURE CLEANING	
	SOURCE LIFE	50,000 HOURS/L70 AT 25°	
	MOUNTING OPTIONS	SWIVEL MOUNT & LOCKABLE MOUNT	
	CONNECTORS	6-CORE AC/DMX CABLE WITH IP CONNECTORS FOR EASY CONNECTION AND INSTALLATION	
	MAXIMUM FIXTURES IN SERIES	15M (50') @120V, 30M (100') @240/277V AC	
OPTICAL	BEAM ANGLE	10° • 25° • 40° • 60° • 80° • 10°X35° • 10°X40° • 10°X60° • 30°X60° • 40°X70°	
	COLOUR RANGE	WHITE (2400K, 2700K, 3000K, 3500K, 4000K, 5000K, 6000K), RGB, RGBA, DYNAMIC WHITE (2000K – 5000K)	
	ACCURATE COLOUR CONTROL	RGBW CONFIGURATIONS WITH SELECTABLE CCT	
	LED TYPE	HIGH POWER QUD CHIP 4-IN-1 RGBW	
	TOTAL LUMENS	693LM (305MM) – 1386LM (610MM) – 2079LM (915MM) – 2772LM (1220MM)	
	CENTRE BEAM CANDELA	1979 (RGBW 10°X60° – FULL ON)	
DIMING & CONTROL	CONTROL PROTOCOLS	X-STREAM PROTOCOL WITH DATA REDUNDANCY AND SPI, DMX	
	DIMMING RESOLUTION	8 BIT RESOLUTION DOING 65536 STEP WITH BUILT-IN GAMMA 2.2, 12-BIT, 14-BIT, 16-BIT.	
FIXTURE RATING & CERTIFICATIONS	CE / IP66 / IK07	CE  	
LIMITED WARRANTY	5 YEARS		
		*Extendable warranty available	

FIXTURE DIMENSIONS

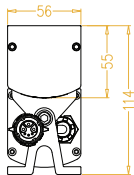
BXG100 DIMENSIONS



BXG100 BRACKET DIMENSIONS



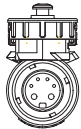
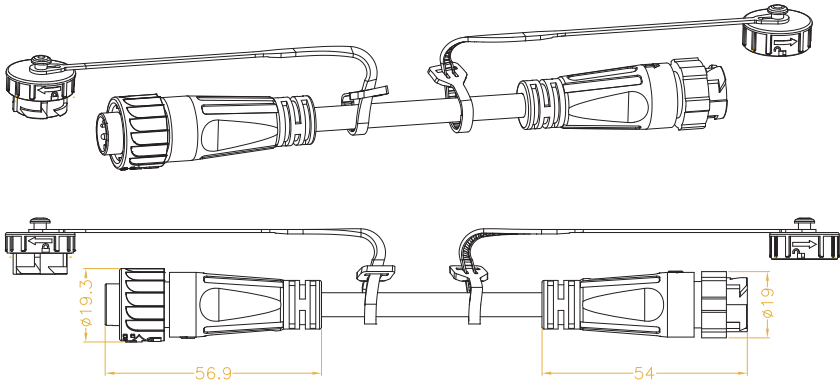
BXG100 SWIVEL MOUNT DIMENSIONS



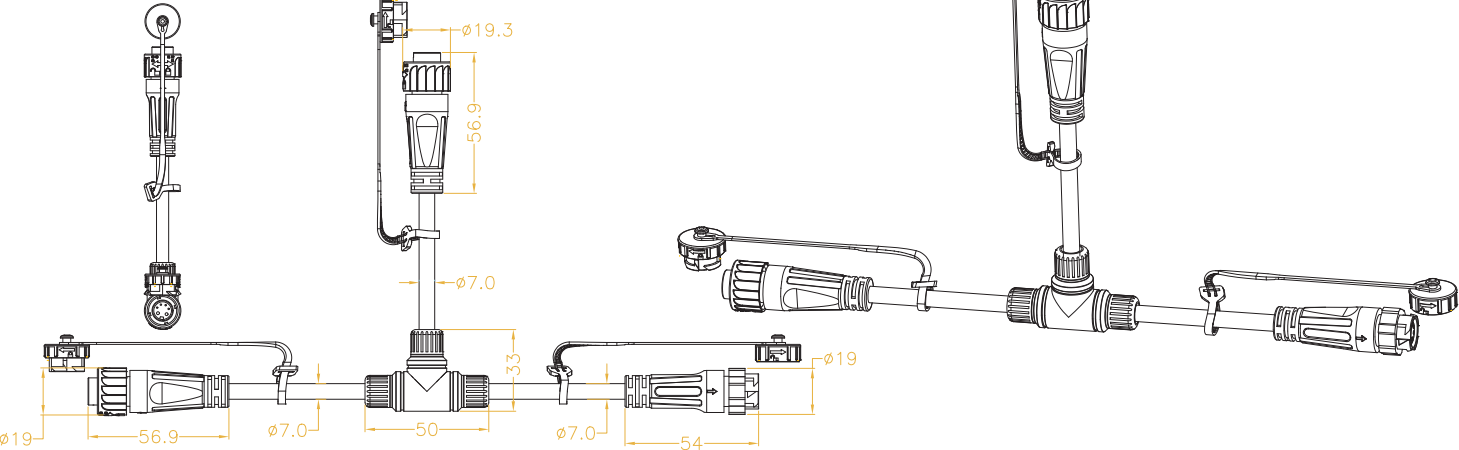
LINEAR GRAZER | MAXIMUM OUTPUT

CABLES AND CONNECTORS

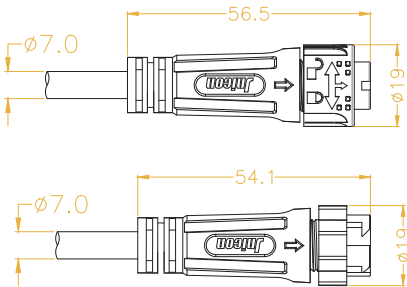
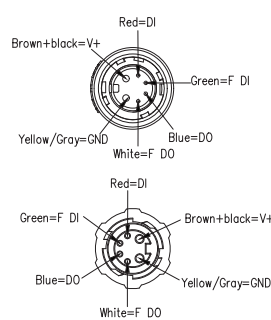
6-PIN AC/DMX LINKING CABLE



6-PIN AC/DMX T-CABLE



6-PIN AC/DMX IP CONNECTOR



LINEAR GRAZER

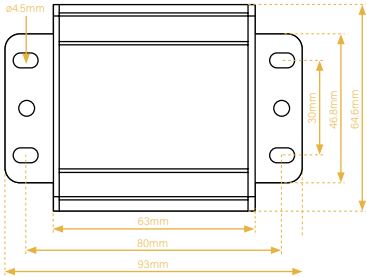
MAXIMUM OUTPUT

PXT/R BOOSTERS

The PXT and PXR work together as a transmitter/receiver pair to allow you to extend SPI signals up to 100 metres. The units convert the standard API signal to/from a differential pair to allow the signal to travel this distance while minimising interference.

Wide input voltage range allows support for many LED products, and the compact size makes it easy to accommodate in installations.

D1 and B1 inputs support standard data (D1) and backup data (B1) for pixel protocols supporting data redundancy.



PXT TRANSMITER

INPUT VOLTAGE
AMP
INPUT
OUTPUT
IP RATING

12V – 48V DC
6A MAX
SPI OR X-STREAM FROM CONTROLLER OR LEDS
X-STREAM DIFFERENTIAL SIGNAL
IP20

PXT RECEIVER

INPUT VOLTAGE
AMP
INPUT
OUTPUT
IP RATING

12V – 48V DC
6A MAX
X-STREAM DIFFERENTIAL SIGNAL
SPI OR X-STREAM TO LEDS
IP20

X-STREAM® COMMUNICAITON OPTIONS

X-Stream® technology is LED CTRL's premium communication platform, delivering high-speed data transmission, intelligent redundancy, and exceptional signal integrity across large-scale lighting installations. It is available in two configurations to suit different installation requirements.

X – X-Stream (EXTERNAL)

In the standard X-Stream configuration, all communication hardware sits outside the fixture. A PXT (Transmitter) and PXR (Receiver) pair is mounted externally, converting the standard SPI signal to a differential pair for long-distance, interference-resistant data transmission.

- Communication distance up to 100 metres between fixtures.
- D1 and B1 inputs support standard and backup data for full signal redundancy.
- Wide input voltage range for compatibility across the LED CTRL product ecosystem.
- For longer runs, additional pXT/pXR pairs can be added at intervals to maintain signal integrity.
- Best suited for installations where external access to communication hardware is preferred, or where fixtures do not support internal integration.

XB – X-Stream Boosted (INTEGRATED)

X-Stream Boosted moves the signal repeating capability inside the fixture run, eliminating external hardware and simplifying installation. An external PXT transmits the signal to a PXR housed inside the product, which receives, processes, and re-transmits via a built-in PXT to the next fixture – effectively turning each boosted point into a signal relay.

- Eliminates external junction boxes and separately mounted communication hardware.
- Each boosted point fully regenerates the signal, preventing degradation over distance.
- Supports extended runs without compromising data quality.
- Cleaner installation with fewer visible components.

Integration depends on the product:

- High refresh rates (up to 16 kHz) further ensure stable, flicker-free performance and accurate colour rendering.
- Factory-integrated (e.g. LXB): The PXT/PXR hardware is built directly into the fixture, no additional components required.
- Dedicated boost housing (e.g. PUX): A purpose-built fixture shell, identical in form but without LEDs, houses the PXT/PXR pair. Placed at the beginning of each run and at intervals along longer runs, it integrates seamlessly without disrupting the visual continuity of the installation.

Both configurations share the same underlying X-Stream platform, ensuring identical signal quality, redundancy, and compatibility with LED CTRL controllers and fixtures.

LINEAR GRAZER

MAXIMUM OUTPUT

X-STREAM® TECHNOLOGY

X-Stream® Technology is LEDCTRL's premium communication and power delivery platform, built on the advanced UCS7604 driver IC. It is designed to deliver high speed data transmission, exceptional reliability, and superior visual performance across large-scale and demanding lighting installations.

At its core, the system integrates intelligent signal processing, high-precision constant current control, and advanced error-detection mechanisms to ensure stable operation and consistent output, even in complex or long-distance configurations.

KEY FEATURES

Built-in Redundancy

X-Stream® incorporates dual-channel signal transmission with intelligent fault detection. In the event of a pixels or signal failure, the system automatically bypasses the faulty node and continues data transmission without interruption.

- Dual signal channels with real-time monitoring
- Automatic switching between channels in case of failure
- Fault identification accuracy greater than 99%
- No visible disruption during signal switching

This ensures continuous operation and eliminates single-point failures across the installation.

Auto-Addressing

Fixtures require no manual addressing or pre-configuration. Each unit automatically interprets incoming data, allowing for flexible installation and simplified maintenance.

- Plug-and-play installation
- No addressing sequence required
- Fixtures can be installed in any order

This significantly reduces installation time and minimises the risk of configuration errors.

High-Speed Communication

X-Stream® supports high-speed PWM data transmission, enabling smooth and dynamic lighting effects across long runs.

- Transmission speeds: 800 Kbps and 16 Mbps
- Supports high frame rates and fast data refresh
- Capable of filming environments up to 533 FPS without flicker
- Stable performance regardless of frame frequency

This ensures high-quality visual output suitable for media façades, dynamic content, and camera-facing applications.

Advanced Dimming Performance

The system supports multiple dimming resolutions, delivering precise brightness control and smooth transitions across the full output range.

- 8 / 12 / 14 / 16-bit dimming options
- Up to 65,536 levels of greyscale
- Built-in gamma correction (8-bit to 16-bit equivalent)
- Seamless dimming from 0% to 100%

High refresh rates (up to 16 kHz) further ensure stable, flicker-free performance and accurate colour rendering.

Signal Integrity & Reliability

X-Stream® integrates advanced anti-interference and signal enhancement technologies to maintain reliable communication in challenging environments

- S-AI anti-interference technology reduces radiation and conduction interference
- Enhanced signal receiving and transmission stability
- Consistent performance across varying environmental conditions
- Extended standard spacing between fixtures (>15 m)

These features ensure robust operation in large-scale and electrically complex installations.

Data Booster Technology

To support extended installation distances, X-Stream® incorporates data boosting capabilities both within fixtures and via external booster units.

- Extends communication distance up to 100 m between fixtures
- Maintains signal integrity over long data runs
- Supports large-scale linear and distributed installations

This allows for greater design flexibility without compromising system performance.

Long-Distance Power Distribution

X-Stream® systems are designed to support extended power runs through intelligent power management and integrated hardware.

- AC fixtures with built-in, replaceable power supplies
- High power factor for efficient energy distribution
- Managed startup and inrush current control
- Smart load regulation for stable operation
- Supports continuous runs of up to 96 m of linear product

This ensures reliable power delivery across extended fixture runs while maintaining system safety and efficiency.

System Overview

By combining high-speed communication, intelligent redundancy, and advanced signal processing, X-Stream® Technology enables the creation of large-scale, high-performance lighting systems with minimal installation complexity and maximum operational reliability.

Its integration of the UCS7604 chipset ensures that each fixture operates with precision, consistency, and resilience, making it suitable for demanding architectural, façade, and media lighting applications.