



product introduction

The plug n' play design of the Direct-Connect Linear Light Series gives users tremendous flexibility without the concern for additional wiring. The LXB300 array utilizes 12 high intensity LEDs and a built-in backlit acrylic diffuser and is the longest light in the Direct-Connect Series. It also features an integrated constant current driver built into the light. Direct-Connect Series Linear Lights utilize 24VDC and can operate in continuous or strobe mode. NPN or PNP strobe triggers can be used to control the pulse of the light. Intensity of the light can be controlled via 0-10V remote analog signal or manual potentiometer.



product features



- Backlight or Diffuse Front Light
- Direct Connect
- T-Slot For Mounting and Connecting Together
- Driver Built In – No External Wiring To A Driver
- PNP and NPN Strobe Input
- Continuous Operation or Strobe Mode
- Dimmable Via Built In Potentiometer
- Analog Intensity 0-10VDC Signal
- Twelve, 1mm² Die High Current LEDs



product specifications

Electrical Input	24VDC +/- 5%
Current	Max. 900mA
Wattage	Max. 21W
Strobe Input	PNP ▶ +3VDC or greater to activate. NPN ▶ GND (<1VDC) to activate
PNP Line	3.7mA @ 3VDC 6.2mA @ 5VDC 12.6mA @ 10VDC 30.4mA @ 24VDC
NPN Line	22mA @ Common (0VDC)
Yellow Indicator LED	LED Strobe Indicator ON = Light Active
Green Indicator LED	ON = Power
Continuous Mode	Light will be in continuous mode by leaving signal on strobe input active
Potentiometer	10 turn pot – Intensity control of 10% - 100% Clockwise increases intensity
Analog Intensity	The output is adjustable from 10% - 100% of brightness by a 0 -10VDC signal
Connection	5 pin M12 Integral QD connector
Daisy Chain	Up to eight LXB300
Ambient Temperature	-20°C - 50°C (-4°C - 122°F)
Lifespan	100,000 hrs
IP Rating	IP50
Weight	~540g
IEC 62471 Rating	See page 4



product number key

LXB300 – XXX —» Part Number Key

Product Family:
Linear Light
LXB300

Color:
470 – Blue
505 – Cyan
530 – Green
625 – Red
850/940 – IR
WHI - White

CE and RoHS Compliant



warnings



Attention

Please note that the power requirements are 900mA at 24VDC. Failure to supply light with 900mA will result in non-repeatable lighting. Contact Smart Vision Lights for more information.



wiring configuration



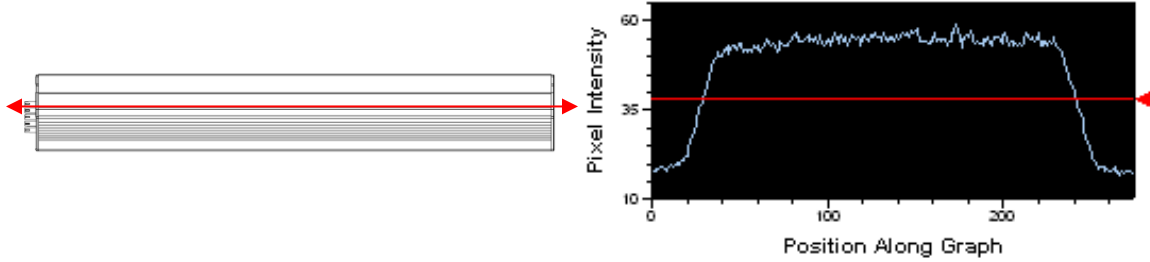
If Analog 0-10VDC is not used to control light intensity;
+VDC (24VDC) must be connected to Analog Input - Jumper pin 3 to pin 1

PIN	Wire Color	Function	Signal
5	BLUE	Ground	GND
4	BLACK	PNP Strobe	4VDC to 30VDC for active ON
3	GREY	Analog Intensity Control	0-10VDC
2	WHITE	NPN Strobe	GND for active ON
1	BROWN	Power	+24VDC

† Some cables use green with yellow stripe for 0-10V adjustment



optical performance



The LXB300 offers a very diffuse light pattern at any defined working distance. The Pixel Graph representation shows a steep drop off in intensity outside of the active area with a very diffuse light pattern inside.



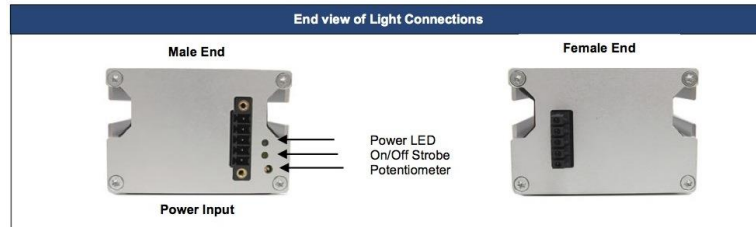
thermal analysis

The LX series of linear lights is the brightest in the vision industry due to the heat dissipation of the housing. Lifespan and power output for LED lights are based on the junction temperature of the high current LED. The junction is the point where the light is generated inside the LED and the point of heat generation. To dissipate heat, Smart Vision Lights directly mounts high current LED's to an aluminum circuit board. The aluminum circuit board is in direct contact with LX series aluminum housing. This design efficiently transfers heat away from the high powered LEDs. Therefore, the LX series Linear Light can be run at higher current, producing an increased output due the even heat dissipation of the aluminum housing. In constant operation the housing on Smart Vision Lights LX series lights will run at 50°C in an ambient temperature of 25°C.





connecting lights/daisy chain



risk group

According to IEC 62471:2006. Full documentation upon request.

Notice

Exempt Group: No photobiological hazard to eyes or skin even for continuous, unrestricted use.
Applicable for wavelengths: 625 and 850.

Caution

Risk Group 1: Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to eye. Safe for most applications except prolonged exposures.
Applicable for wavelengths: 395, 470, 505, 530, and WHI.

Notice

Risk Group 1: UV emitted from this product. Minimize exposure to eyes and skin. Use appropriate shielding. Safe for most applications except prolonged exposures.
Applicable for wavelengths: 395

Caution

Risk Group 2: UV emitted from this product. Eye or skin irritation may result from exposure. Use appropriate shielding. Does not pose optical hazard if aversion responses limit exposure.
Applicable for wavelengths: 365