

1km VCSEL Array Laser Illuminator LI-08XXA-001K-01-60

Features

- High performance VCSEL chip, no attenuation
- High efficiency up to 40% @ 25°C, >35% @ 50°C
- VCSEL chip, wide operating temperature -40~85°C
- VCSEL array chip with large emission area, good safety
- Motorized large dynamic beam angle zooming
- Illumination over 1km range
- High reliability, lifetime up to 50,000hrs
- Compact, easy to integrate
- RS232, RS485, TTL interface optional
- Negligible off-axis divergence, easy to collimate with camera lens
- Uniform beam intensity, speckle free
- Operating state memory
- CE certified
- Predefining position
- Low heat, high efficiency



Applications

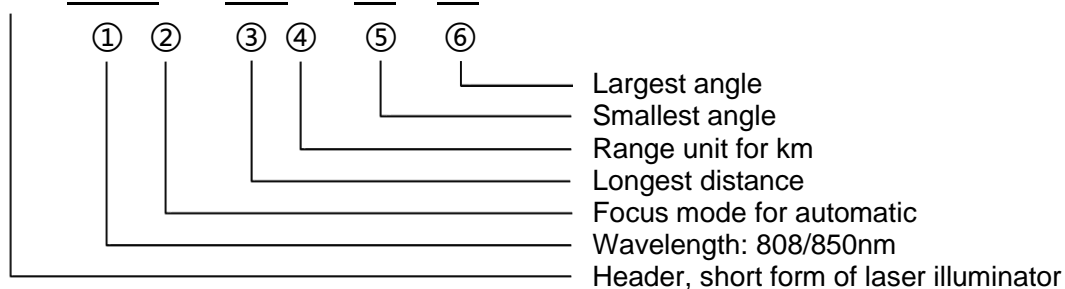
- Security surveillances
- Automobile night vision (ADAS)
- Machine vision
- Gesture recognition
- Display applications
- Medical applications
- Military applications

PRODUCT IDENTIFY

Part Number	Description
LI-08XXA-001K-01-60	1km VCSEL Array Laser Illuminator

CODE RULES

e.g. LI - 08XXA - 001K - 01 - 60



Description

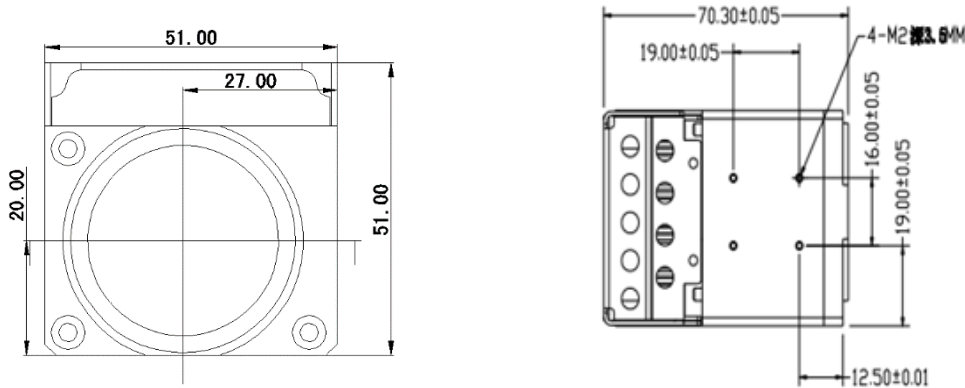
This laser illuminator is high performance integrated with high quality laser chip and excellent optics design, and outstanding circuit control with high efficiency. It has big dynamic beam angle zooming, which can match the field view angle of cameras. It also has friendly interfaces such as operating voltage, communication protocol and installation schematic. It can be widely used in video security surveillances, machining vision, gesture recognition, display control, laser medicine and military applications.

This illuminator is compatible with major lens and cameras, integrated with the protocols of Pelco D. It is easy for users to implement the illuminator. Simultaneously, position can be preset via serial port, and users can call the instruction to operate conveniently in use. Due to uniform power intensity of beam, users can obtain high quality video and easily recognize the features inside.

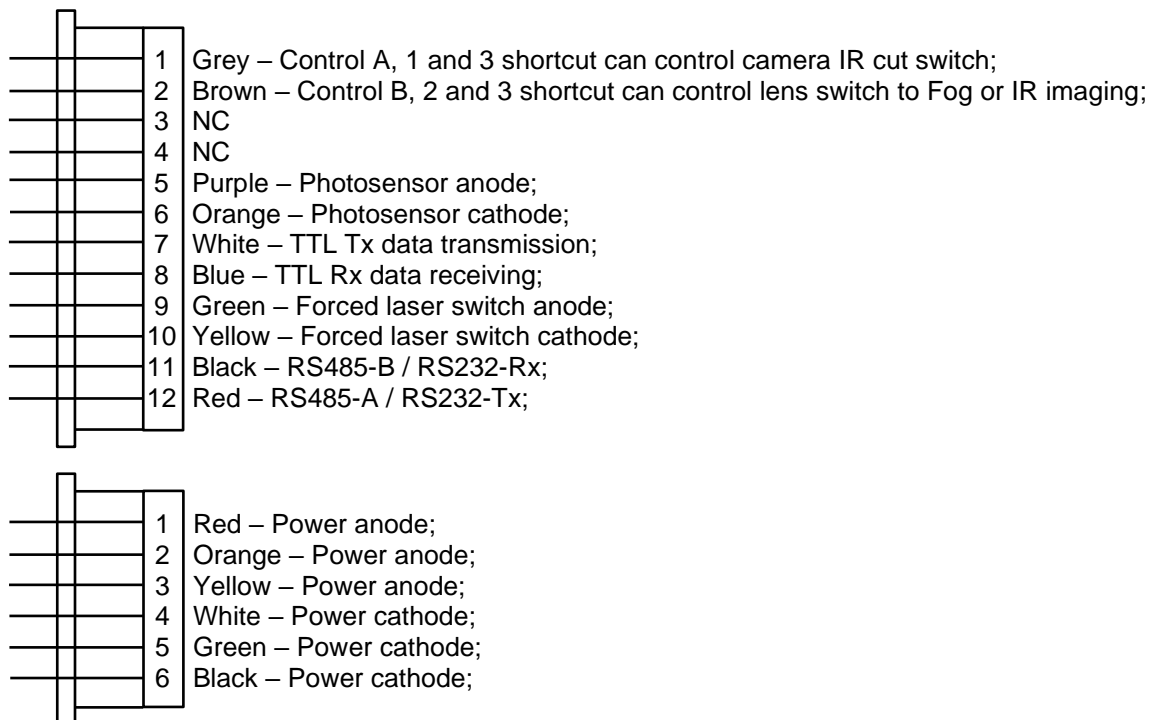
Specifications

Parameters	Typical values	Unit	Remarks
Model no.	LI-08XXA-001K-01-60		
Laser mode	Multimode	-	
Wavelength	808/850±10	nm	
Optical power	3	W	@exit
Spot shape	Circular	-	
Illuminating distance	1000	m	
Spot uniform	excellent	-	
Fan angle	1.6~60	°	±0.2°
Operating voltage	12	V	
Operating current	1.2	A	
Operating mode	Pulsed	-	
Lifetime	50,000	hrs	
Operating temperature	-40~85	°	
Storage temperature	-40~85	°	
Power consumption	<12	W	
Dimensions	70(L)x51(W)x51(H)	mm	
Material	Alloy	-	
Surface color	Black	-	
Laser classification	Class 4	-	Staring time ≤10s
Protocol interface	RS232 / RS485 / TTL	-	
Protocol	Pelco D	-	
Surface processing	-	-	
Weight	300	g	
Heat dissipation	Forced wind	-	

Mechanical drawing



Electrical interface



Laser safety

The output power of this module is classified as Class IV, one can refer to IEC 60825-1:2014 "Laser Product Safety: Part 1: Devices classification, requirements and user's manual".

Copyright statement

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Revision history

Revision	Date	Description
V.01	2020/01/03	The first official edition