

Vision Datum

Machine Vision LED Illumination

Machine Vision
Bar Illumination

VISION DATUM LIGHTS

The Leader and Innovator in Machine Vision Lighting



ABOUT US

Vision Datum as leading manufacturer of machine vision products in China, have almost 20 years in this industry, and the major products cover machine vision lighting / illumination, camera, lens, machine vision algorithms and storage software.

With abundant experience in industry application and scientific research, Vision Datum Machine Vision Led Illumination offer a wide range of selections, and we provide OEM / ODM customization for various lighting solutions, including but not limited to Line Scan Lights, Telecentric Lights, Ultraviolet and Infrared Lights , Waterproof and Anti-corrosion Lighs, and Multi-spectral Lights.

Vision Datum products have been exported to almost 100 countries and regions, and in thousands of projects have received countless affirmations and reputations. Vision Datum machine vision products are well-known as innovative, flexible, stable and easy to use, enabling reliable inspection in many applications.

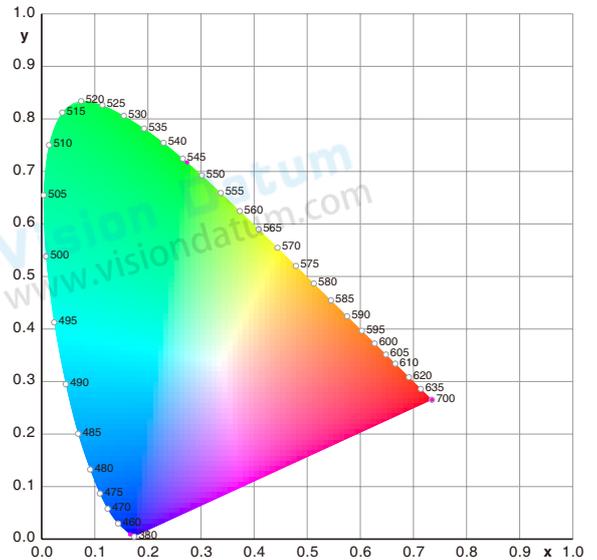
- B**
BRIGHTER
Up to 10X brighter than normal lighting
- B**
BETTER
Extremely high-quality performance feedback, and the defect rate < 0.01%
- C**
COST-COMPETITIVE
Help our customers to save > 50% cost on lighting source
- E**
EXPERT
Leading designer and manufacturer of LED lighting solutions for any type of machine vision or automation camera application
- F**
FLEXIBILITY
1 PC OEM / ODM available, including but not limited to IP67 / Anticorrosion requirement or IR / UV spectrum request

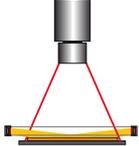
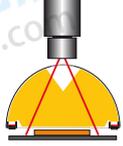
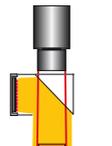
USEFUL INFORMATION

Color Wavelength

The durability of LEDs is on the upper area of the durability spectrum. The duration in which LED remains fully functional depends on the operating temperature and ambient temperature.

Vision Datum gives an extended guarantee on its LEDs. All housings, except some bar lights, are manufactured by high quality aluminum. Besides, the light intensity of all the lights can be regulated as well as flashed.



Illumination	Structure
<p>Bright field illumination</p> <p>Light is aimed directly at an object, often creating distinct shadows. This type of light is effective when used on objects which requires high degrees of contrast, but will create specular reflections when used with shiny or reflective materials.</p>	
<p>Dark field illumination</p> <p>Light is projected at an angle to the surface, causing any variations to deflect light up into the camera, creating bright spots on a dark background or field. Nothing is seen by the vision system if there are no aberrations on the surface.</p>	
<p>Back illumination</p> <p>An even field of illumination is projected from behind an object, which is seen as a silhouette by the camera. Backlight is the most commonly used in taking measurements or determining part orientation.</p>	
<p>Diffuse illumination: (Dome/Tunnel)</p> <p>Reflected light, providing a non-directional, soft illumination free of harsh shadows, which is well suited for highly specular objects. This illumination effect is similar to the type of light found on an overcast day.</p>	
<p>Coaxial illumination:</p> <p>A variation of diffuse light in which light is aimed at an angled beam splitter that reflects the light down. The object is viewed from above through the beam splitter. This light type is particularly helpful on highly reflective objects or in situations where the area of inspection is obscured by shadows from its surroundings.</p>	
<p>Each light type has a specific purpose, but is also adaptable for a range of applications not immediately related to its function. For example, a spotlight, which provides bright field illumination, can be placed at an angle to create a dark field effect. For some applications, the best results are achieved by combining multiple light types.</p>	

High brightness Bar Illumination HL + Series

Features

- With high power LEDs, the light intensity is times higher than standard one.
- Aluminum housings ensure an optimal heat dissipation and dispose of various practical mounting possibilities.

Major Applications

- Robot operation directive.
- Long distance illumination.
- Inspection of sealant padding in auto industry and large format printing material, etc..



Sample Images



Imaging for characters Bar code reading



Imaging for characters Keystroke character check

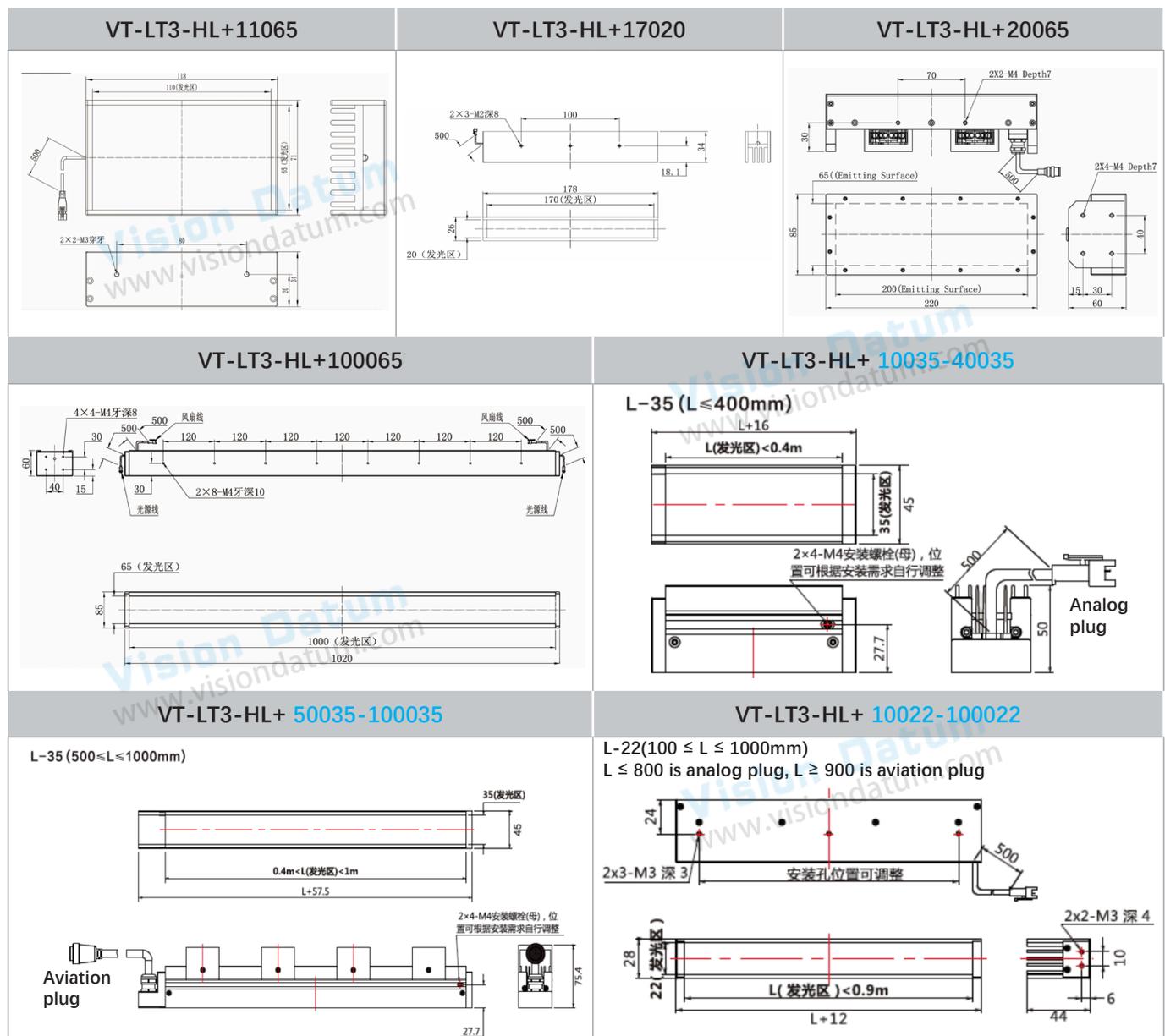


Imaging for characters Checking the appearance quality

Model No.	Optical spec.		Electrical specifications		Dimensions		
	Light Area		Supply Voltage (v)	Power cons. (w) ○	Length (mm)	Width (mm)	Height (mm)
	Length (mm)	Width (mm)					
VT-LT3-HL+10035W	100	35	24	17.0	116	45	50
VT-LT3-HL+20035 W	200	35	24	34.0	216	45	50
VT-LT3-HL+30035 W	300	35	24	51.0	316	45	50
VT-LT3-HL+40035 W	400	35	24	68.0	416	45	50
VT-LT3-HL+50035 W	500	35	24	85.0	557.5	45	75.4
VT-LT3-HL+60035 W	600	35	24	102.0	657.5	45	75.4
VT-LT3-HL+70035 W	700	35	24	119.0	757.5	45	75.4
VT-LT3-HL+80035W	800	35	24	136.0	857.5	45	75.4
VT-LT3-HL+90035 W	900	35	24	153.0	957.5	45	75.4
VT-LT3-HL+100035 W	1000	35	24	170.0	1057.5	45	75.4
VT-LT3-HL+10022 W	100	22	24	8.5	112	28	44
VT-LT3-HL+20022 W	200	22	24	17.0	212	28	44
VT-LT3-HL+30022 W	300	22	24	25.5	312	28	44
VT-LT3-HL+40022 W	400	22	24	34.0	412	28	44
VT-LT3-HL+50022 W	500	22	24	42.5	512	28	44
VT-LT3-HL+60022 W	600	22	24	51.0	612	28	44
VT-LT3-HL+70022 W	700	22	24	59.5	712	28	44
VT-LT3-HL+80022 W	800	22	24	68.0	812	28	44
VT-LT3-HL+90022 W	900	22	24	76.5	912	28	44
VT-LT3-HL+100022 W	1000	22	24	85.0	1012	28	44

Model No.	Optical spec.		Electrical specifications		Dimensions		
	Length (mm)	Width (mm)	Supply Voltage (v)	Power cons. (w)	Length (mm)	Width (mm)	Height (mm)
VT-LT3-HL+11065W	110	65	24	14.4	118	71	34
VT-LT3-HL+17020W	170	20	24	-	178	26	34
VT-LT3-HL+20065W	200	65	24	68	220	85	60
VT-LT3-HL+100065W	1000	65	24	324	1020	85	60

Dimension (mm)



Overview

Light Controller Collection



Model	Drive Mode	Input Voltage	Output Voltage	Power	Output Current	Channel	Output Port	Adapt to line light
Digital Controller								
VT-LT4-0506PWDC-2	Constant Current	88V-264V	5V	Total:6W/Single :3W Expandable: Total:12W/Single:6W	/	2	SMP-03V	
VT-LT4-2420PWDC-2	Constant Voltage	88V-264V	24V	Total:20W Single:20W	/	2	SMP-03V	
VT-LT4-2460PWDC-4	Constant Voltage	88V-264V	24V	Total:60W Single:25W	/	4	SMP-03V	
VT-LT4-24150PWDC-4	Constant Voltage	88V-264V	24V	Total:150W Single:70W	/	4	SMP-03V	
VT-LT3-24240PWDC-2	Constant Current	100V-120V(Ver.A) 200V-240V(Ver.B)	24V	240W	Total:10A Single:10A	2	19M-5	✓
VT-LT3-24500PWDC-2	Constant Voltage	100V-240V	24V	480W	Total:20A Single:light 9A, fan 1A	2	19M-2E	
VT-LT4-48300PWDC-1	Constant Current	90V-264V	48V	300W	0-6A	1	-	
Stroboscopic Controller (With Brightening Module)								
VT-LT3-PLU24120-4	Constant Voltage	100V-240V	48V	120W	10A(Instantaneous Value)	4	SMP-03V-BC	
VT-LT3-PLU24200-2	Constant Voltage	100V-240V	48V	200W	50A(Instantaneous Value)	2	12M-2	
VT-LT3-PLU24200-4	Constant Voltage	100V-240V	48V	200W	25A(Instantaneous Value)	4	SMP-03V-BC	
Line Source Stroboscopic Controller (With Brightening Module)								
VT-LT3-PLU481000LI-6	Constant Voltage	100V-240V	48V	1000W	Total:25A Single:25A	6	16M-2	✓
Line Source Controller								
VT-LT3-24300PWLI-1	Constant Voltage	100V-240V	24V	≤ 300W	12.5A	1	AM20K4Z	✓
VT-LT3-48600PWLI-2	Constant Current	100V-120V(Ver.A) 200V-240V(Ver.B)	48V	600W	Total:12A Single:6A	2	19M-6	✓
VT-LT3-48600PWLIN-1	Constant Current	100V-120V(Ver.A) 180V-240V(Ver.B)	48V	≤ 600W	Total:12A Single:6A	1	19M-6	✓
VT-LT3-48300PWLIN-2	Constant Current	100V-240V	48V	≤ 300W	Total:6A Single:6A	2	16M-6	✓
VT-LT3-48600PWLIN-2	Constant Current	180V-240V	48V	≤ 600W	Total:12A Single:6A	2	19M-6	✓
VT-LT3-48800PWLIN-1	Constant Current	100V-240V	48V	< 800W	14A	1	19M-6	✓
VT-LT3-48800PWLIN-2	Constant Current	100V-240V	48V	≤ 800W /Single ≤ 400W	14A	2	19M-6	✓
VT-LT3-481200PWLIN-1	Constant Current	100V-240V	48V	≤ 1200W	Total:24A Single:12A	1	19M-6	✓
Analog Controller								
VT-LT4-0506PWAC-2	Constant Current	88V-264V	5V	Total:6W Single:3W	/	2	SMP-03V	
VT-LT3-2460PWAC-4	Constant Voltage	100V-240V	24V	60W	Total:2.5A Single:2.5A	4	SMP-03V-BC	

Note: Default -Ver.B version voltage

2024

HOT PRODUCTS

Infrared Series Camera

- ◇ Near-Infrared(NIR) Industrial Cameras: 300-1100nm
- ◇ Short-Wave(SWIR) Industrial Cameras: 400-1800nm
- ◇ Cooled Mid-Wave Infrared(MWIR) Cameras: 1500-5200nm
- ◇ Long-Wave Infrared(LWIR) Industrial Cameras: 8000-14000nm



NIR



SWIR



MWIR



LWIR

High-Speed Camera

- ◇ 10GigE, SDI
- ◇ 1000 ~ 1000000 FPS



• iSpeedy Series



iSpeedy SE Series •

Vision And More Available

让工业更智能，让视觉更简单！



SWIR Camera
Industrial Camera



Macro Lens
Industrial Lens



Microscope



System Solution
No-programming Software



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Official Website



Online Store

Ver.24.05