PLA21.02

PLA SERIES

High-powered linear lights projectors

Linear projectors with high-powered LEDs. Designed with iBlueDrive technology for illuminating big areas with compact lighting systems due to its angle of emission. Thanks to their small size and light weight, they are ideal for operating with robots. These lighting systems provide great contrast and highlight textures, reliefs and fissures of illuminated object. Available with various angles of emission.

Technical specifications[1]

Lighting model	PLA0513A	PLA1013A	PLA1026A	PLA2026A
				
Dimensions	130x40x16	130x40x16	260x40x16	260x40x16
RWD (mm)	>50	>50	>50	>50
Weight	141g	145g	267g	271g
IP rating	IP40	IP40	IP40	IP40
Mounting holes	(x4)M2↧5	(x4)M2↧5	(x6)M2↧5	(x6)M2↧5
Connection *(Type C)*	3P aerial male connector. L=150mm PIN 1= +24V ±8% PIN 2= 0V PIN 3= Control	N/A	3P aerial male connector. L=150mm PIN 1= +24V ±8% PIN 2= 0V PIN 3= Control	N/A
Modifiers[2]	N M W D PNP	N M W D	N M W D PNP	N M W D
Accessories[3]				
Power cable *(Not-included)*	VCC Series	N/A	VCC Series	N/A
iBlueDrive tech.	N/A	**Built-in**	N/A	**Built-in**
iBlueDrive connection	N/A	3P aerial male connector. L= 150mm PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control[4]	N/A	3P aerial male connector. L= 150mm PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control[4]
iBlueDrive power cable *(Not-included)*	N/A	VCC Series	N/A	VCC Series
iBlueDrive accessories[3]	N/A		N/A	

Instantaneous consumption[5] (max.)

*WT

Lighting model		PLA0513A	PLA1013A	PLA1026A	PLA2026A	
TYPE C 24VDC	B	5.5W	N/A	11W	N/A	-470C
	G	5.5W	N/A	11W	N/A	-525C
	R	5.5W	N/A	11W	N/A	-630C
	i	5W	N/A	11W	N/A	-850C
	W	5.5W	N/A	11W	N/A	-W00C
TYPE P		No 'Type P' standard LED lighting systems in this series				
TYPE S		No 'Type S' standard LED lighting systems in this series				
TYPE i[6] iBlue Drive	B	N/A	24W [48W/12W]	N/A	48W [96W/24W]	-470i
	G	N/A	24W [48W/12W]	N/A	48W [96W/24W]	-525i
	R	N/A	19W [34W/12W]	N/A	37W [68W/24W]	-630i
	i	N/A	12W [24W/6.5W]	N/A	24W [48W/12W]	-850i
	W	N/A	24W [48W/12W]	N/A	48W [96W/24W]	-W00i

N/A= Not available

(1) Environmental specifications and iconography legend in additional annex Z1.4 and Z2 respectively.

(2) Angles of emission of PLA series projectors. If not indicated, default angle will be /AM. Please, consult the code to select a different angle of emission before ordering (additional annex Z2.1).

(3) Accessories are not-included. More information in accessories section.

(4) iBlueDrive control input wiring specifications in additional annex Z1.2.

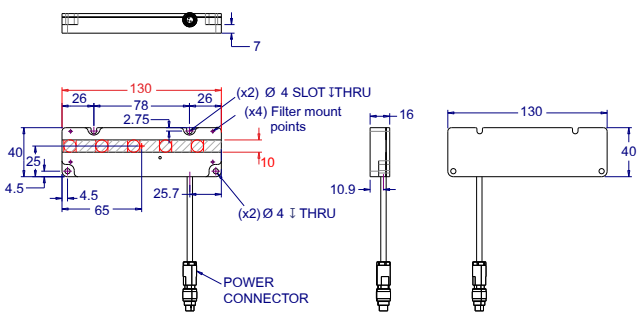
(5) Bear in mind that consumption table is only to be used as a guide. To refer to real values, please, consult product label when purchasing.

(6) Values of maximum instantaneous consumption of **'Type i'** lighting systems in ***Powered mode [Strobe mode / Continuous mode]***

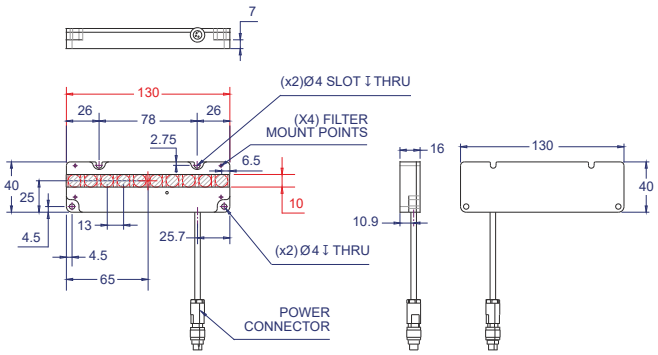
***ORDER REFERENCE = Lighting model + WT / MODIFIERS**

PLA21.01

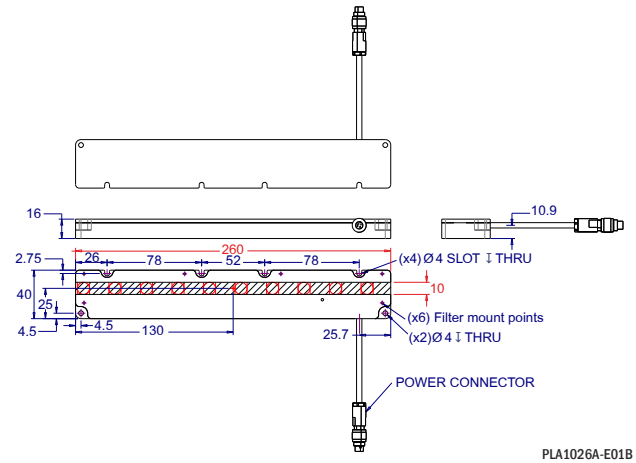
PLA SERIES



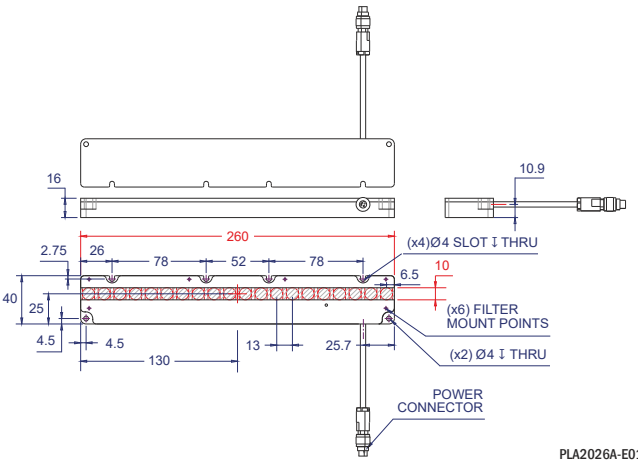
PLA0513A-E01B



PLA1013A-E02B

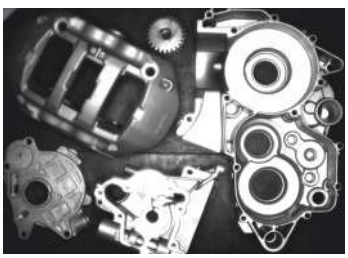


PLA1026A-E01B

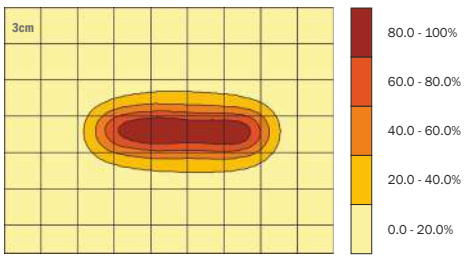


PLA2026A-E01B

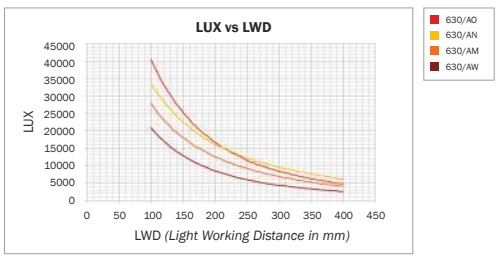
All units in millimeters, if not indicated.



Example of PLA captured image



Brightness distribution of PLA1013A-630i/AN@100mm

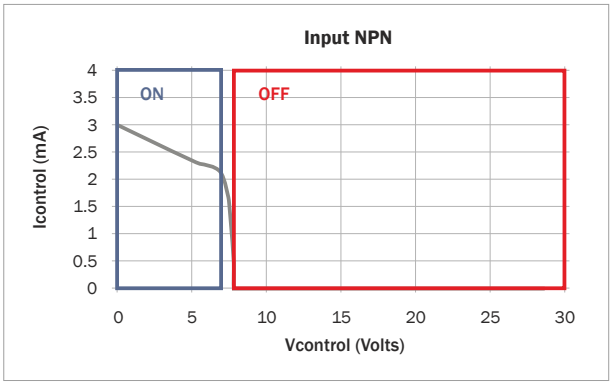


PLA1013A-630i light intensity.

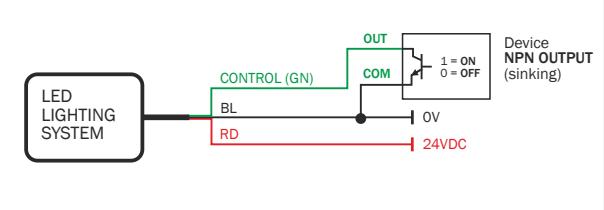
▶ Z1.1 - Control input NPN/PNP for 'Type C' lighting systems of DOL, PLA (PLA0513A and PLA1026A), PLC, PRC (PRC0604C and PRC0606B), PRH and PRK series.

■ NPN model (by default)

NPN chart of Vcontrol (Volts) vs Icontrol (mA)



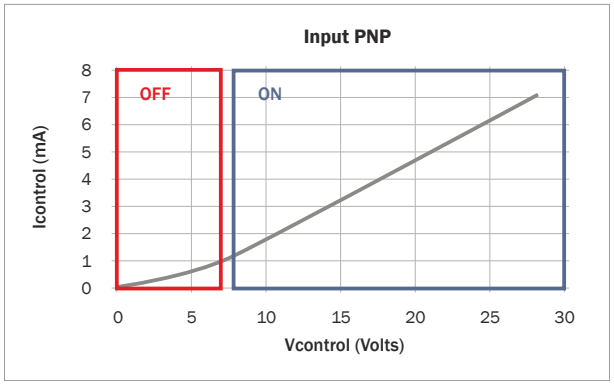
NPN wiring for ON/OFF mode



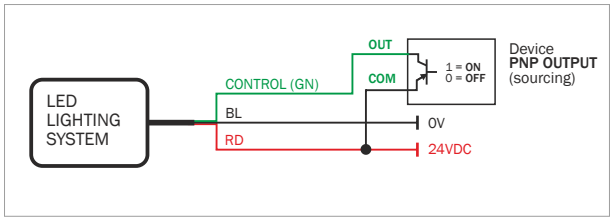
Electrical specifications	
0V to +6.8V	Light ON
+7.2V to +24V	Light OFF
Working conditions	25°C, VIN = 24V
Connection	Direct to a NPN output
Delay from OFF to ON state	<5 µs
Delay from ON to OFF state	<5 µs
Bias voltage in control input	7.9V
Input impedance	7K9 Ω

■ PNP model (lighting systems with PNP modifier =/P)

PNP chart of Vcontrol (Volts) vs Icontrol (mA)



PNP wiring for ON/OFF mode

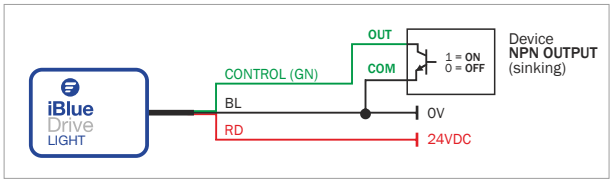


Electrical specifications	
0V to +6.8V	Light OFF
+7.2V to +24V	Light ON
Working conditions	25°C, VIN = 24V
Connection	Direct to a PNP output
Delay from OFF to ON state	<5 µs
Delay from ON to OFF state	<5 µs
Bias voltage in control input	0V
Input impedance	4K Ω
Compliance	IEC1131-2 Type 1, 2 and 3

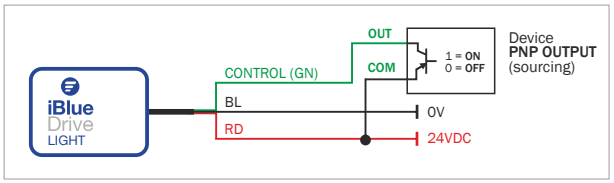
▶ Z2.1 - iBlueDrive control input wiring

All iBlueDrive products come together with a quick-start guide for connection and working conditions. Refer to iBlueDrive Manual for extended information.

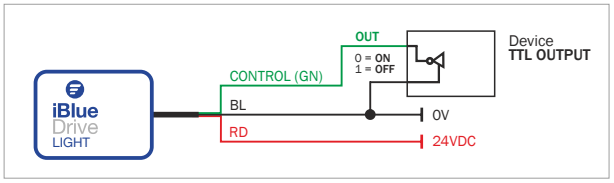
NPN wiring for strobe or ON/OFF mode



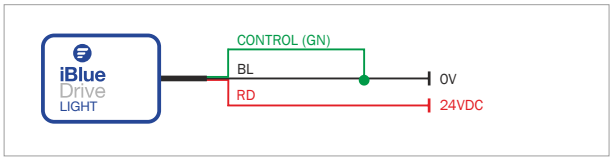
PNP wiring for strobe or ON/OFF mode



TTL wiring for strobe or ON/OFF mode

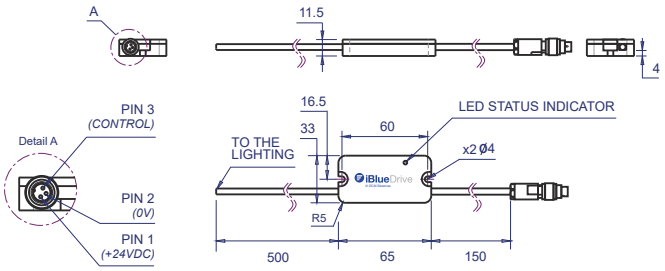


Wiring for continuous mode



▶ Z2.2 - iBlueDrive inline

iBlueDrive inline is the driver for iBlueDrive technology integrated as a box of 65x33mm to the cable that goes from the lighting system to the connector. It is used when iBlueDrive driver can not be integrated on chassis. *See diagram:*



WARNING!: In continuous and powered mode, clamp driver to a metal surface for heat dissipation. In Strobe mode is not required, but recommended.

▶ Z2.3 - iBlueDrive Accessories legend

icon	Description	Serie/Product
	Accessorie to configure iBlueDrive devices: **iBlueDrive Box, iBlueDrive USB**	**VTA0005A, VTA0006A, VTA0007A**
	iBlueDrive optocoupler	**VTA0020A**
	iBlueDrive potentiometer	**VTA0030B**

Z3.1 - Environmental Specifications

Max. Operating Humidity	85% non-condensing
Operating Temperature	0 - 40ºC
Storage Temperature	0 - 60ºC
Housing material	Anodized aluminium
Standards	

Z3.2 - Modifiers legend

icon	Description	Code
	Narrow angle of emission	**/AN**
	Medium angle of emission *(default)*	**/AM**
	Wide angle of emission	**/AW**
	Diffuse emission	**/AD**
	Polarizer filter	**/FPL**
	Diffuser filter	**/FDR**
	Backlight hole of 42mm	**/H**
	Backlight hole of 65mm	**/H1**
	Dome hole of 46mm	**/CC1**
	Dome hole of 40mm	**/CC2**
	IP Rating = IPxx = Ip65 / IP67	**/65 /67**
	PNP input model	**/P**
	50mm focal Length	**/F1**
	150mm focal Length	**/F2**
	Infinite focal Length	**/F3**
	Lighting by sectors = 2 or 4 sectors	**/2S /4S**

Z3.3 - Accessories legend

icon	Description	Serie
	Power cable/s	**VCB, VCC, VCD Series**
	Other cable/s	**VCU, VCL**
	Strobe and RGB controller/s	**VST, VSC Series**
	Polarizer filter	**VPF, VPC**
	Diffuser filter	**VDF**
	Collimater filter on **x** axis, y axis or both	**VCF**
	Darkfield converter	**VRF**
	Protector filter	**VPT**
	Heat dissipator	**VHD**
	Fixing bracket	**VBA, VBB, VBC Series**

Z3.4 - Technical drawings legend

icon	Description
	Optical axis
	Viewing window dimensions
	Lighting elements
	Light emission center
	Lighting surface dimensions

Z3.5 - Colours & Wavelegths legend

icon	Wavelength	Colour	Code
	365nm	UV-	**-365**
	400nm	UV	**-400**
	470nm	BLUE	**-470**
	525nm	GREEN	**-525**
	630nm	RED	**-630**
	850nm/880nm	IR	**-850/-880**
		WHITE	**-W00**
		RGB	**-RGB**

Z3.6 - Types of lighting legend

icon	Description
	Radial lighting
	'Darkfield' lighting effect. Low angle illumination
	Backlight illumination
	'Cloudy day' lighting effect
	'Bright field' lighting effect
	Projector lighting
	Axial lighting

Z3.7 - Types of light legend

icon	Description
	Direct light
	Diffuse light
	Ultra-diffuse light

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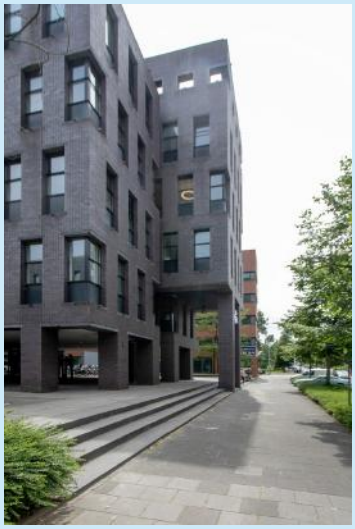

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