

ALB SERIES

Direct high-powered ringlights

ALB21.02

Series of direct ringlights with high-powered leds. Designed with iBlueDrive technology for illuminating from the camera axis the non-reflective objects. These systems provide greater amount of light than ALD Series, which make them suitable for lighting objects from further distances. They highlight textures and contours and are available in several angles of emission and various suplementary filters for being much more versatile.

Technical specifications¹

Lighting model	ALB0804A	ALB0810A	ALB1716A
20	0	0	
Dimensions	94.5x77x16.5	94.5x77x16.5	168x168x38.5
Inner Ø	40	40	76
RWD (mm)	>50	>50	>50
Weight	120g	124g	940g
IP rating	IP40	IP40	IP65
Mounting holes	(x2)M4J5	(x2)M4J5	(x9)M4I6
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
Power cable (Not-included)	VCC Series	N/A	VCC Series
Modifiers ²	(N) (M) (M) (2D) (PNP)		AN AM AW (1D PMP 4S 1057)
Accessories ³			8 28
iBlueDrive tech.	Built-in	Built-in	Built-in
iBlueDrive connection	3P aerial male connector. L= 150mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P aerial male connector. L= 150mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P aerial male connector. L= 150mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴
iBlueDrive power cable (Not-included)	VCC Series	VCC Series	VCC Series
iBlueDrive accessories ³	% @(1)	% @(1)	% @ 1

Instantaneous consumption⁵ (may)

stantaneous c	onsump	tion ⁵ (max.)			*WT
Lighting model		ALB0804A	ALB0810A	ALB1716A	
	•	5.5W	N/A	20W	-365C
	0	5.5W	N/A	22W	-400C
	B	5.5W	N/A	20W	-470C
TYPE C	©	5.5W	N/A	20W	-525C
24VDC	R	5.5W	N/A	20W	-630C
	0	5W	N/A	10W	-850C
	W	5.5W	N/A	17W	-wooc
TYPE P		No 'Type P' standard L	ED lighting systems in this s	eries	
TYPE S		No 'Type S' standard L	ED lighting systems in this s	eries	
	•	12W [24W/7.7W]	15W [48W/10W]	48W [96W/24W]	-365i
	0	12W [24W/7.7W]	15W [48W/10W]	48W [96W/24W]	-400i
TYPE i ⁶	B	12W [24W/7.7W]	15W [48W/10W]	48W [96W/24W]	-470i
	e	12W [24W/7.7W]	15W [48W/10W]	26W [96W/13W]	-525i
9	B	12W [17W/7.7W]	15W [34W/10W]	26W [96W/13W]	-630i
iBlue	0	12W [24W/7.7W]	12W [24W/6,5W]	26W [48W/13W]	-850i
Drive	W	12W [24W/7.7W]	15W [48W/10W]	26W [96W/13W]	-W00i

N/A= Not available

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



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

⁽²⁾ Angles of emission of ALB series ringlights. 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.

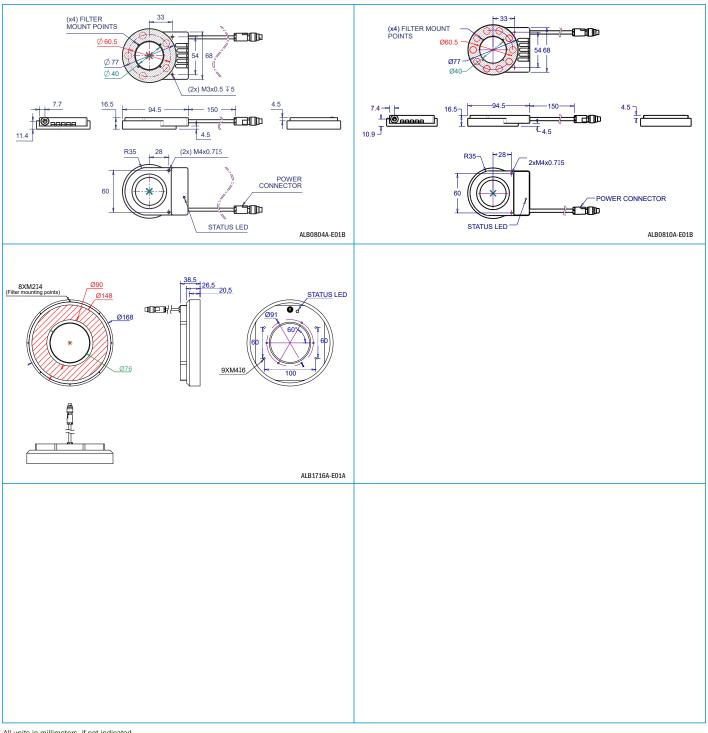
⁽⁴⁾ iBlueDrive control input wiring specifications in additional annex Z1.2.

⁽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.



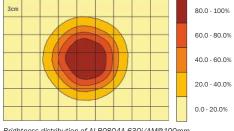
ALB SERIES

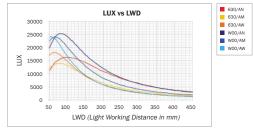
ALB21.01



All units in millimeters, if not indicated.







Brightness distribution of ALB0804A-630i/AM@100mm

ALB0804A-630i light intensity.

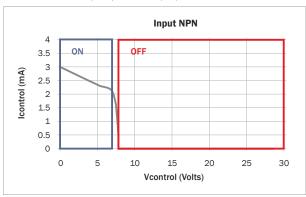


Z1X21.01

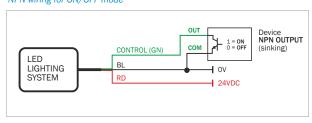
► Z1.1 - Control input NPN/PNP for 'Type C' lighting systems of DOL, PLA (PLA0513A and PLA1026A), PLC, PRC (PRC0604C and PRC0606B), PRH and PRK series.

NPN model (by default)

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



NPN wiring for ON/OFF mode

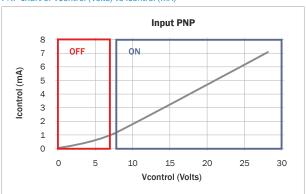


Electrical specifications

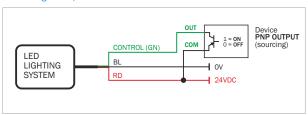
0V to +6.8V	Light ON
+7.2V to +24V	Light OFF
Working conditions	25°C, VIN = 24V
Connection	Direct to a NPN output
Delay from OFF to ON state	<5 µs
Delay from ON to OFF state	<5 µs
Bias voltage in control input	7.9V
Input impedance	7Κ9 Ω

■ 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	OV
Input impedance	4Κ Ω
Compliance	IEC1131-2 Type 1, 2 and 3



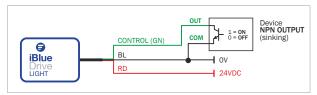


Z2X21.01

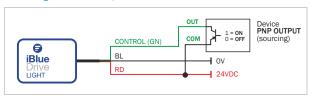
▶ Z2.1 - iBlueDrive control input wiring

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

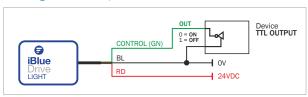
NPN wiring for strobe or ON/OFF mode



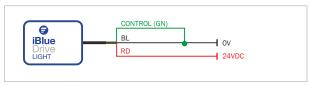
PNP wiring for strobe or ON/OFF mode



TTL wiring for strobe or ON/OFF mode



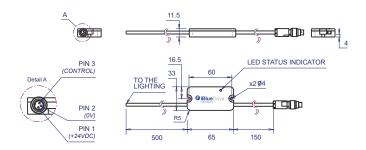
Wiring for continuous mode



➤ 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
Q ₀	Accessorie to configure iBlueDrive devices: iBlueDrive Box, iBlueDrive USB	VTA0005A, VTA0006A, VTA0007A
1	iBlueDrive optocoupler	VTA0020A
0	iBlueDrive potentiometer	VTA0030B



Z3X21.01

► Z3.1 - Environmental Specifications

Max. Operating Humidity	85% non-condensing
Operating Temperature	0 - 40°C
Storage Temperature	0 - 60°C
Housing material	Anodized aluminium
Standards	CE X PROHS

Z3.2 - Modifiers legend

icon	Description	Code
\bigcirc N	Narrow angle of emission	/AN
∠ M	Medium angle of emission (default)	/AM
(AW)	Wide angle of emission	/AW
<u>a</u>	Oval angle of emission = 23-24° (x) 17-18° (y)	/A0
<u>10</u>	Diffuse emission	/AD
Ø	Polarizer filter	/FPL
<u></u>	Diffuser filter	/FDR
Н	Backlight hole of 42mm	/H
H1	Backlight hole of 65mm	/H1
(CC1)	Dome hole of 46mm	/CC1
CC2	Dome hole of 40mm	/CC2
(Ipxx)	IP Rating = IPxx = Ip65 / IP67	/65 /67
PNP	PNP input model	/P
(f1)	50mm focal Length	/F1
f2	150mm focal Length	/F2
<i>f</i> 3	Infinite focal Length	/F3
xs	Lighting by sectors = 2 or 4 sectors	/2\$ /4\$

▶ Z3.3 - Accessories legend

icon	Description	Serie
₩	Power cable/s	VCB, VCC, VCD Series
(//*)	Other cable/s	VCU, VCL
(III)	Strobe and RGB controller/s	VST, VSC Series
\boxtimes	Polarizer filter	VPF, VPC
2	Diffuser filter	VDF
	Collimater filter on x axis	VCFx
	Collimater filter on y axis	VCFy
	Collimater filter on xy axis	VCFxy
(5)	Darkfield converter	VRF
Ø	Protector filter	VPT
*	Heat dissipator	VHD
8	Fixing bracket	VBA, VBB, VBC Series

► Z3.4 - Technical drawings legend

icon	Description	
×	Optical axis	
₽ ^N	Viewing window dimensions	
_	Lighting elements	
+	Light emission center	
A	Lighting surface dimensions	

▶ Z3.5 - Colours & Wavelegths legend

icon	Wavelength	Colour	Code
①	365nm	UV-	-365
0	400nm	UV	-400
B	470nm	BLUE	-470
G	525nm	GREEN	-525
R	630nm	RED	-630
•	850nm/880nm	IR	-850/-880
W		WHITE	-W00
P		RGB	-RGB

► Z3.6 - Types of lighting legend

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

➤ Z3.7 - Types of light legend

icon	Description
3	Direct light
3	Diffuse light
	Ultra-diffuse light





Thank you for downloading this document from www.machine-vision-shop.com

If you have any questions, you need help composing the right package for your application or do you want to order?

Feel free to contact us via e-mail at sales@vision-consultancy.nl or visit our webshop.

Our vision experts are happy to help you.



Natascha Overhof



Christian Crompvoets



VISION CONSULTANCY

Robert Schumandomein 2 6229 ES Maastricht The Netherlands

+31 (0) 438 522 651

sales@vision-consultancy.nl www.machine-vision-shop.com

