

SAX SERIES

Diffuse axial lights

SAX21.01

Diffused axial lighting system that produces a diffused light upcoming from the camera axis which eliminates shines and shadows on reflecting objects.

Technical specifications¹

Lighting model	SAX0505A	SAX1010B	SAX1515A	SAX2020A	SAX2515A
		SAMUIO	ANTES	The state of the s	
Dimensions	100x62x75	150x112x140	200x162x200	250x212x270	200x262x200
Active surface	52x50	102x100	152x150	201x200	152x250
RWD (mm)	<100	<120	<180	<200	<200
Weight	480g	1530g	3125g	5570g	5715g
IP rating	IP40	IP40	IP40	IP40	IP40
Mounting holes	(x4)M4I6	(x4)M4J6	(x9)M4J6	(x9)M4I6	(x9)M4I6
Connection (Type C/S)	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V ±3% PIN 2 = 0V	2P male chassis connector PIN 1 = +24V±3% PIN 2 = 0V
Power cable (Not-included)	VCB Series	VCB Series	VCB Series	VCB Series	VCB Series
Modifiers ²	(X)	Ø	②	Ø	⊗
Accessories ³					
iBlueDrive tech.	Built-in	Built-in	Built-in	Built-in	Built-in
iBlueDrive connection	3P male chassis connector PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P male chassis connector PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P male chassis con- nector PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P male chassis con- nector PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴	3P male chassis con- nector PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁴
iBlueDrive power cable (Not-included)	VCC Series	VCC Series	VCC Series	VCC Series	VCC Series
iBlueDrive accessories ³	(%)	% @ ①	%	(%)	& @ 1

Instantaneous consumption⁵ (max.)

*	۷	۷

Lighting model		SAX0505A	SAX1010B	SAX1515A	SAX2020A	SAX2515A	
TYPE O	B	4.7W	14W	26W	46W	53W	-470C
TYPE C	Θ	4.7W	14W	26W	46W	53W	-525C
24VDC	ß	3W	10W	21W	42W	38W	-630C
	0	3W	10W	21W	42W	38W	-850C
	W	4.7W	14W	26W	46W	53W	-W00C
TYPE P		No 'Type P' standard LED	lighting systems in this serie	es			
TYPE C	B	705mA/17W	2110mA/51W	4310mA/103W	7655mA/184W	8800mA/211W	-470S
TYPE S	0	705mA/17W	2110mA/51W	4310mA/103W	7655mA/184W	8800mA/211W	-525S
Dmax= ½0 Ton max= 2ms	B	705mA/17W	2110mA/51W	4310mA/103W	7655mA/184W	8800mA/211W	-630S
Torrinax Zins	0	1045mA/25W	3345mA/80W	7315mA/176W	14630mA/315W	13165mA/316W	-850S
	W	705mA/17W	2110mA/51W	4310mA/103W	7655mA/184W	8800mA/211W	-W00S
	•	900mA/22W channel	3600mA/86W channel	4500mA/108W channel	9600mA/230W channel	9600mA/230W channel	-RGBS
TYPE i ⁶	B	3.9W[20W/3W]	11W[48W/8W]	36W[96W/24W]	26W[96W/17W]	36W[96W/24W]	-470i
	0	6.2W[20W/4.3W]	18W[48W/12W]	36W[96W/24W]	26W[96W/17W]	36W[96W/24W]	-525i
9	B	6.2W[20W/4.3W]	18W[48W/12W]	36W[96W/24W]	26W[96W/17W]	36W[96W/24W]	-630i
iBlue	0	7.7W[24W/4.1W]	24W[48W/12W]	26W[96W/17W]	26W[96W/17W]	26W[96W/17W]	-850i
Drive	W	6.2W[20W/4.3W]	18W[48W/12W]	36W[96W/24W]	26W[96W/17W]	36W[96W/24W]	-W00i

⁽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⁾ Prior to manufacturing optional modifications in standard lighting systems. Please, consult the code before ordering (additional annex Z2.1).

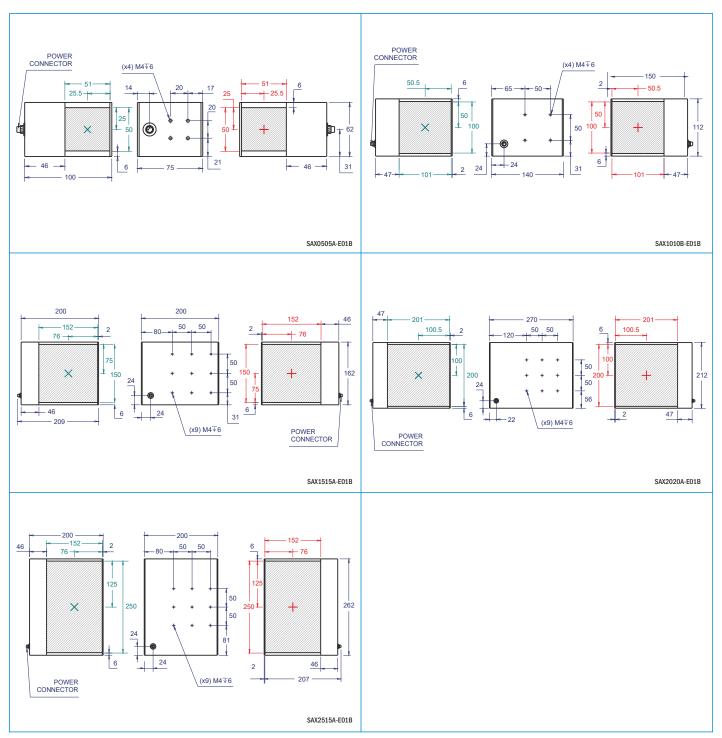
⁽³⁾ Accessories are not-included. More information in accessories section.

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

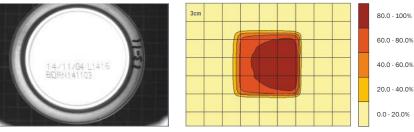
⁽⁵⁾ Bear in mind that consumption table is only to be used as a guide. To refer to real values, please, consult product label when purchasing.

SAX SERIES

AV OFBIEO



All units in millimeters, if not indicated.



Brightness distribution of SAX1010B-630C@5mm



SAX1010B-630C light intensity.

Example of SAX captured image

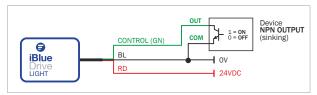


Z2X21.01

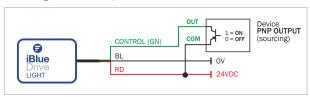
▶ Z2.1 - iBlueDrive control input wiring

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

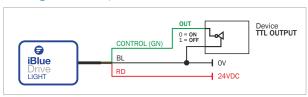
NPN wiring for strobe or ON/OFF mode



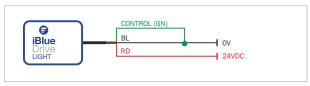
PNP wiring for strobe or ON/OFF mode



TTL wiring for strobe or ON/OFF mode



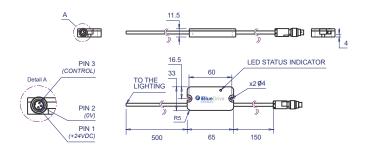
Wiring for continuous mode



➤ 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 Q

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
(1D)	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

