

# SAX SERIES

## Diffuse axial lights

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

### ► Technical specifications<sup>1</sup>

Lighting model	SAX0505A	SAX1010B	SAX1515A	SAX2020A	SAX2515A
<b>Dimensions</b>	100x62x75	150x112x140	200x162x200	250x212x270	200x262x200
<b>Active surface</b>	52x50	102x100	152x150	201x200	152x250
<b>RWD (mm)</b>	<100	<120	<180	<200	<200
<b>Weight</b>	480g	1530g	3125g	5570g	5715g
<b>IP rating</b>	IP50	IP50	IP50	IP50	IP50
<b>Mounting holes</b>	(x4)M4 $\nabla$ 6	(x4)M4 $\nabla$ 6	(x9)M4 $\nabla$ 6	(x9)M4 $\nabla$ 6	(x9)M4 $\nabla$ 6
<b>Connection</b>	2P male chassis connector PIN 1 = +24V PIN 2 = 0V	2P male chassis connector PIN 1 = +24V PIN 2 = 0V	2P male chassis connector PIN 1 = +24V PIN 2 = 0V	2P male chassis connector PIN 1 = +24V PIN 2 = 0V	2P male chassis connector PIN 1 = +24V PIN 2 = 0V
<b>Power cable (Non-included)</b>	VCB Series	VCB Series	VCB Series	VCB Series	VCB Series
<b>Modifiers<sup>2</sup></b>					
<b>Accessories<sup>3</sup></b>					
<b>iBlueDrive tech.</b>	<b>inline</b>	<b>Build in</b>	NO	NO	NO
<b>iBlueDrive connection</b>	3P aerial male inline connector. L= 750mm. PIN 1 = +24V PIN 2 = 0V PIN 3 = Control <sup>4</sup>	3P male chassis connector PIN 1 = +24V PIN 2 = 0V PIN 3 = Control <sup>4</sup>	NO	NO	NO
<b>iBlueDrive power cable (Non-included)</b>	VCC Series	VCC Series	NO	NO	NO
<b>iBlueDrive accessories<sup>3</sup></b>			NO	NO	NO

### ► Instantaneous consumption<sup>5</sup> (max.)

\*WT

Lighting model	SAX0505A	SAX1010B	SAX1515A	SAX2020A	SAX2515A		
<b>TYPE C</b> 24VDC		4.7W	14W	26W	46W	53W	-470C
		4.7W	14W	26W	46W	53W	-525C
		3W	10W	21W	42W	38W	-630C
		3W	10W	21W	42W	38W	-880C
		3W	10W	21W	42W	38W	-940C
		4.7W	14W	26W	46W	53W	-W00C
	<b>TYPE P</b>	No 'Type P' standard LED lighting systems in this series					
<b>TYPE S</b> D <sub>max</sub> = 1/20 Ton max= 2ms		705mA/17W	2110mA/51W	4310mA/103W	7655mA/184W	8800mA/211W	-470S
		705mA/17W	2110mA/51W	4310mA/103W	7655mA/184W	8800mA/211W	-525S
		705mA/17W	2110mA/51W	4310mA/103W	7655mA/184W	8800mA/211W	-630S
		1045mA/25W	3345mA/80W	7315mA/176W	14630mA/315W	13165mA/316W	-880S
		1045mA/25W	3345mA/80W	7315mA/176W	14630mA/315W	13165mA/316W	-940S
		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
<b>TYPE I<sup>6</sup></b> 		3.9W[20W/3W]	11W[48W/8W]	N/A	N/A	N/A	-470i
		6.2W[20W/4.3W]	18W[48W/12W]	N/A	N/A	N/A	-525i
		6.2W[20W/4.3W]	18W[48W/12W]	N/A	N/A	N/A	-630i
		7.7W[24W/4.1W]	24W[48W/12W]	N/A	N/A	N/A	-880i
		7.7W[24W/4.1W]	24W[48W/12W]	N/A	N/A	N/A	-940i
		6.2W[20W/4.3W]	18W[48W/12W]	N/A	N/A	N/A	-W00i

N/A= Not available CUS = Custom

(1) Environmental specifications and iconography legend in additional annex Z1.1 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 non-included. More information in accessories section.

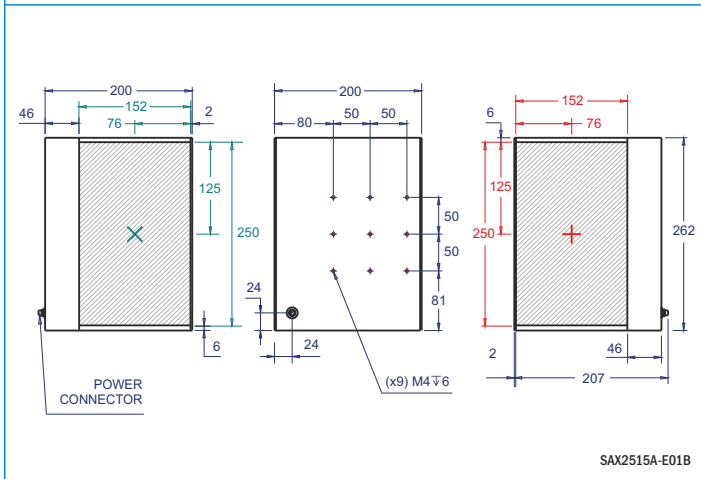
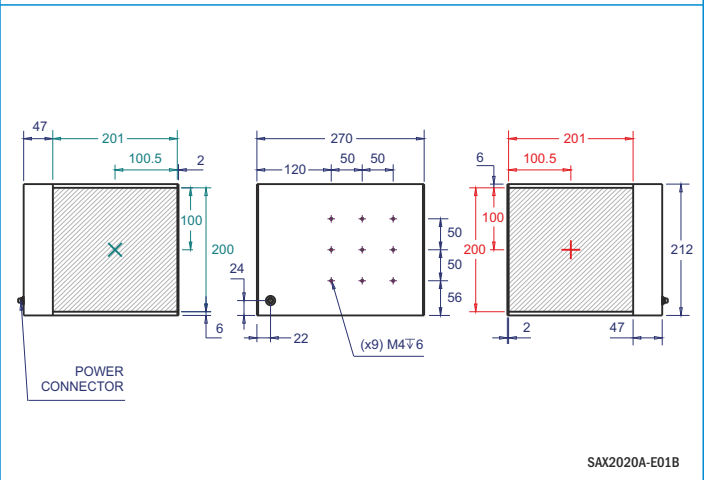
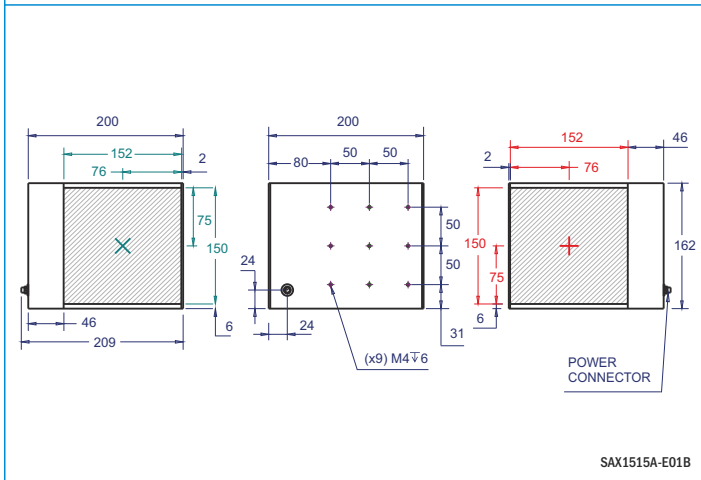
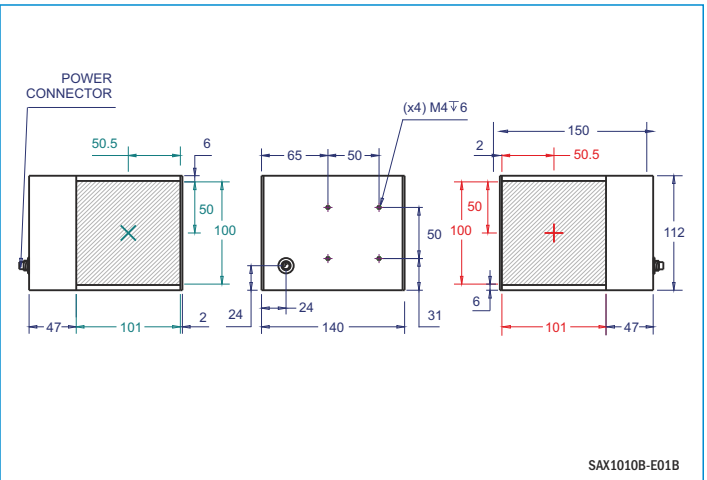
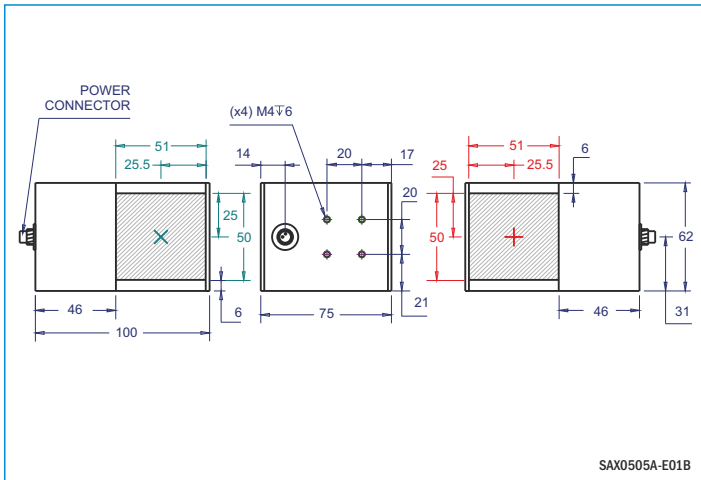
(4) iBlueDrive control input wiring specifications in additional annex Z1.3.

(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)**



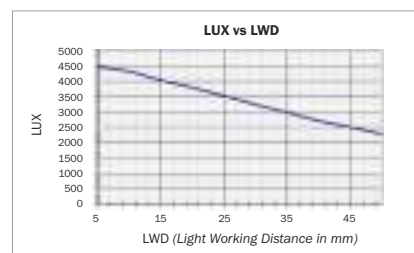
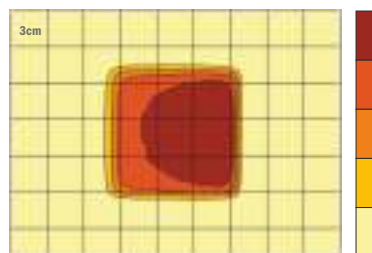
# SAX SERIES



All units in millimeters, if not indicated.





Example of SAX captured image





► Table Z1.1 - Environmental Specifications

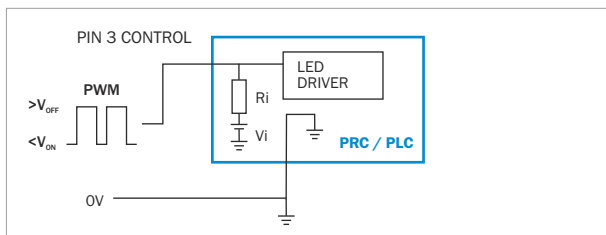
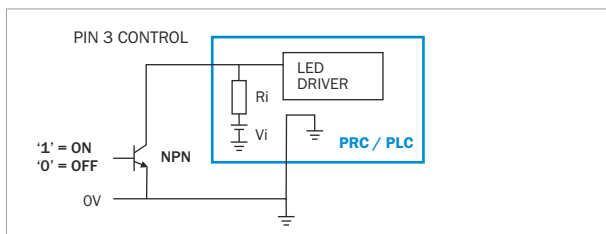
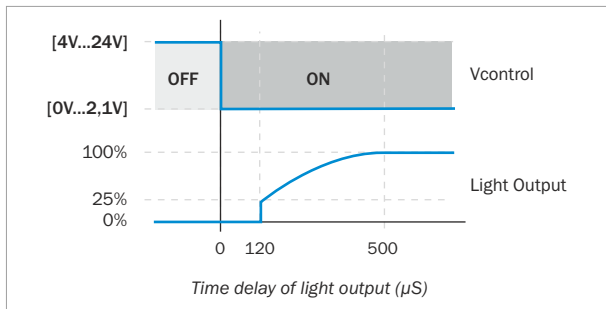
Max. Operating humidity	85% non-condensing
Operating Temperature	0 - 40°C
Storage Temperature	0 - 60°C
Housing material	Anodized aluminium
Standards	 

► Table Z1.2 - Control input for 'Type C' lighting systems with control

PLC and PRC series connection of 'Type C' lamps with control signal

0V to +2.1V	Light ON
+4V to +24V	Light OFF
Dimmer power light PWM (>7Khz)	Control without flickering

Time chart of light output vs control signal



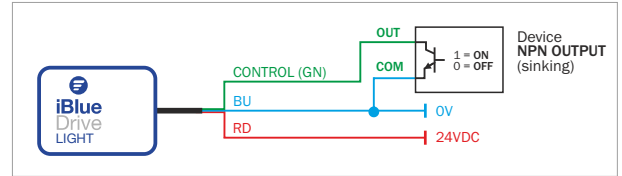
Electrical specifications

Working conditions	25°C, VIN = 24V
Connection	Direct to a NPN output
Delay from OFF to ON status	500µs
Dimmable	Yes. Regulation with a PWM signal thru ON/OFF input.*
*Recommended frequency of PWM	Over 7KHz for non-flickering output
Bias voltage in control input (Vi)	17V
Input impedance (Ri)	41.5KΩ
Duty cycle range of PWM signal	Between 0-0.8
Light output range with PWM dimmer control	From 25% to 100%

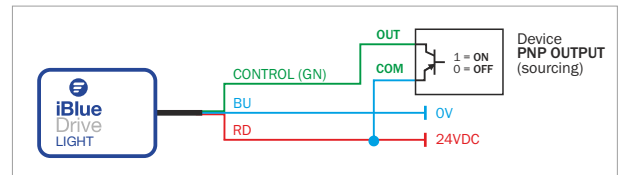
► Table Z1.3 - iBlueDrive control input wiring

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

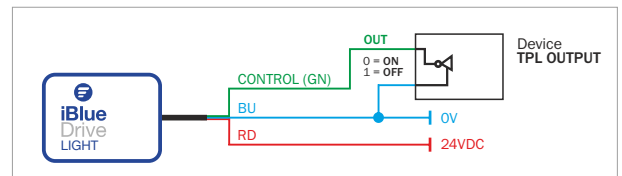
NPN wiring for strobe or ON/OFF working



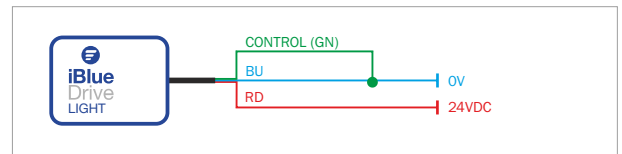
PNP wiring for strobe or ON/OFF working



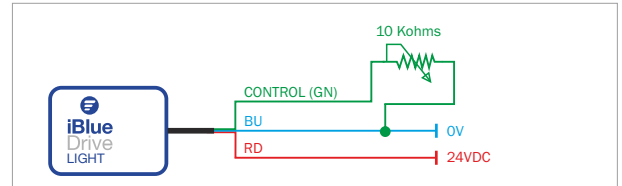
TTL wiring for strobe or ON/OFF working



Wiring for continuous mode

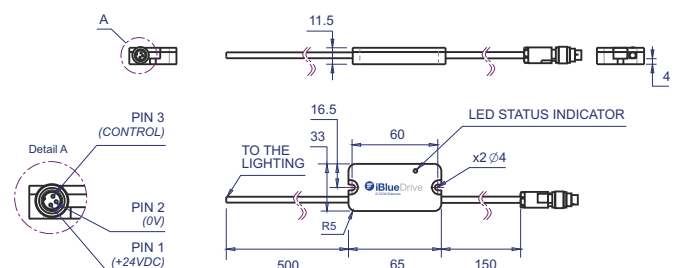


Wiring for continuous dimming mode



► Z1.4 - 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.



► Table Z2.1 - Modifiers legend

icon	Description	Code
	Narrow angle of emission = 18-19°	/AN
	Medium angle of emission = 25-26° (By default)	/AM
	Wide angle of emission = 30-32°	/AW
	Oval angle of emission = 23-24° (x) 17-18° (y)	/AO
	Diffuse emission	/AD
	Polarizer filter	/FPL
	Diffuser filter	/FDR
	Dome hole of 46mm	/CC1
	Dome hole of 40mm	/CC2
	IP Rating = IP67	/67

► Table Z2.2 - Accessories legend

icon	Description	Serie
	Power cable/s	VCB, VCC, VCD Series
	Other cable/s	VCU, VCL
	Strobe controller/s	VST, VSC Series
	Polarizer filter	VPF
	Diffuser filter	VDF
	Collimator filter on x axis	VCFx
	Collimator filter on y axis	VCFy
	Collimator filter on xy axis	VCFxy
	Darkfield converter	VRF
	Protector filter	VPT
	Heat dissipator	VHD
	Fixing bracket	VBA, VBB, VBC Series

► Table Z2.3 - iBlueDrive Accessories legend

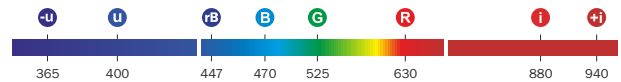
icon	Description	Serie/Product
	Accessorie to configure iBlueDrive devices: iBlueDrive Box, iBlueDrive USB	VTA0005A, VTA0007A
	iBlueDrive dimmer	VTA0010A
	iBlueDrive optocoupler	VTA0020A

► Table Z2.4 - Technical drawings legend

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

► Table Z2.5 - Colours & Wavelegths legend

icon	Wavelength	Colour	Code
	365nm	UV-	-365
	400nm	UV	-400
	447nm	ROYAL BLUE	-447
	470nm	BLUE	-470
	525nm	GREEN	-525
	630nm	RED	-630
	850nm/880nm	IR	-850/-880
	940nm	IR+	-940
		WHITE	-W00
		RGB	-RGB



► Table Z2.6 - 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

► Table Z2.7 - Types of light legend

icon	Description
	Direct light
	Diffuse light
	Ultra-diffuse light