


PRH SERIES

High-powered lights projectors
















High-powered lights projectors with different angles of emission ideal to illuminate small and big surfaces. The versatility of this product can be used in a wide variety of applications. This system is used to emphasize reliefs and textures, reading products labels and marks, despalletising and assembly verification on large components, amongst other uses.

► Technical specifications¹

Lighting model	PRH0104A	PRH1612A
		
Dimensions	40x80	125x125x34.5
Active surface	22	115x115
RWD (mm)	>40	>100
Weight	150g	794g
IP rating	IP65	IP65
Mounting holes	(x2)M4 x 5	(x10)M4 x 6
Connection	3P aerial male connector. L= 150mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ²	3P aerial male connector. L= 150mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ²
Power cable (Not-included)	VCC Series	VCC Series
Modifiers ³		
Accessories ⁴		
iBlueDrive tech.	Built-in	Built-in
iBlueDrive connection	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁵	3P aerial male inline connector. L= 715mm. PIN 1 = +24V ±8% PIN 2 = 0V PIN 3 = Control ⁵
iBlueDrive power cable (Not-included)	VCC Series	VCC Series
iBlueDrive accessories ⁴		

► Instantaneous consumption⁵ (max.)

*WT

Lighting model		PRH0104A	PRH1612A	
TYPE C 24VDC		2.5W	20W	-365C
		2.5W	20W	-400C
		2.5W	20W	-470C
		2.5W	20W	-525C
		2.5W	18W	-630C
		2.5W	18W	-850C
		2.5W	18W	-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 		1.9W[24W/1.2W]	30W[96W/15W]	-365i
		1.9W[24W/1.2W]	30W[96W/15W]	-400i
		1.9W[24W/1.2W]	30W[96W/15W]	-470i
		1.9W[24W/1.2W]	30W[96W/15W]	-525i
		1.9W[17W/1.2W]	30W[96W/15W]	-630i
		1.9W[24W/1.2W]	24W [48W/12W]	-850i
		1.9W[24W/1.2W]	24W[96W/12W]	-W00i

N/A= Not available CUS = Custom

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

(2) Control input specifications of PRH series in additional annex Z1.1.

(3) Prior to manufacturing optional modifications in standard lighting systems including angles of emission of PRH series projectors. If not indicated, default angle will be /AM. Please, consult the code to select a different angle of emission or another optional

*ORDER REFERENCE = Lighting model + WT / MODIFIERS

modification before ordering (additional annex Z2.1).

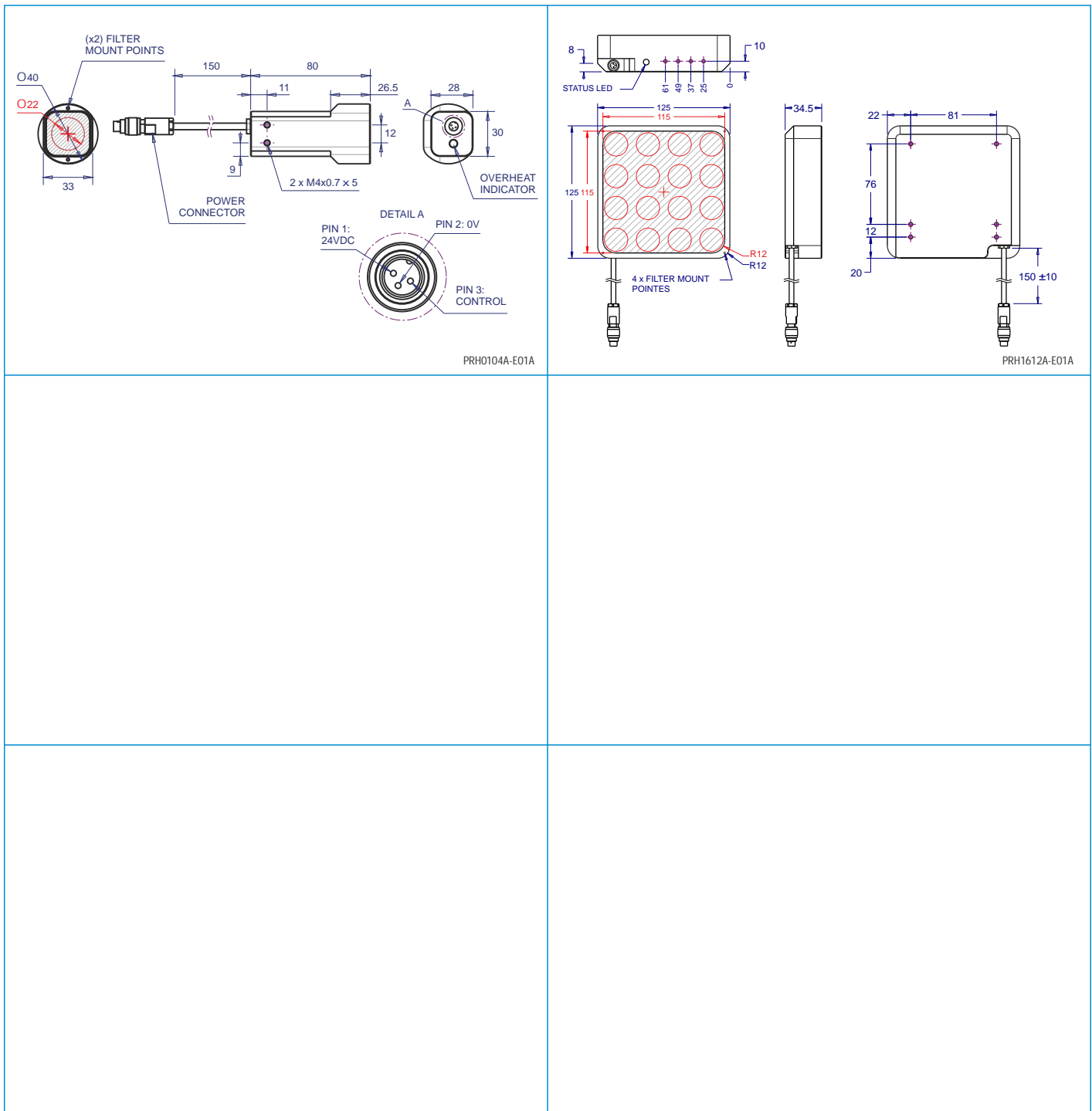
(4) Accessories are not-included. More information in accessories section.

(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.

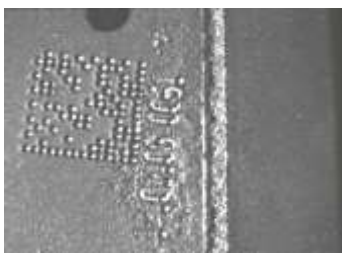
(6) Values of maximum instantaneous consumption of 'Type i' lighting systems in Powered mode [Strobe mode / Continuous mode]



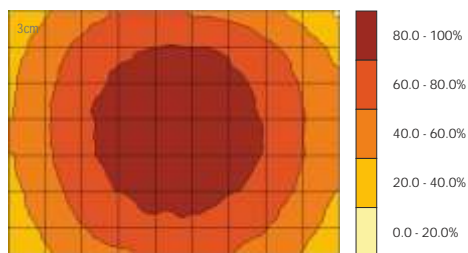
PRH SERIES



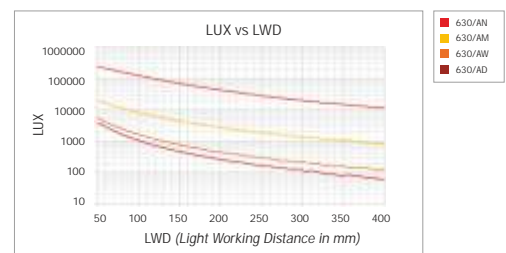
All units in millimeters, if not indicated.



Example of PRH captured image



Brightness distribution of PRH104A-630C/AW@200mm



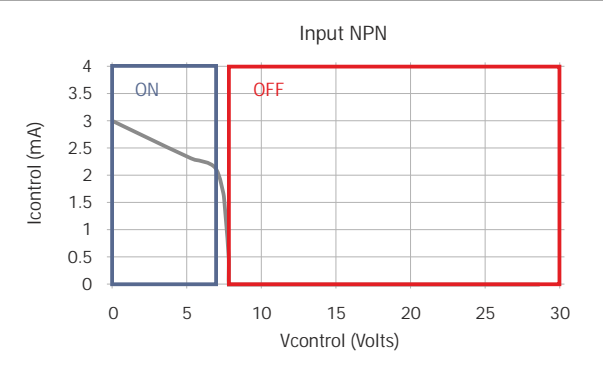
PRH104A-630C light intensity.



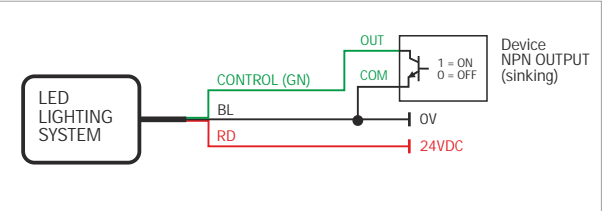
► Z1.1 - Control input NPN/PNP for 'Type C' lighting systems of DOL, PLA (PLA0513A and PLA1026A), PLC, PRC (PRC0604C and PRC0606B), PRH and PRK series.

■ NPN model (by default)

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



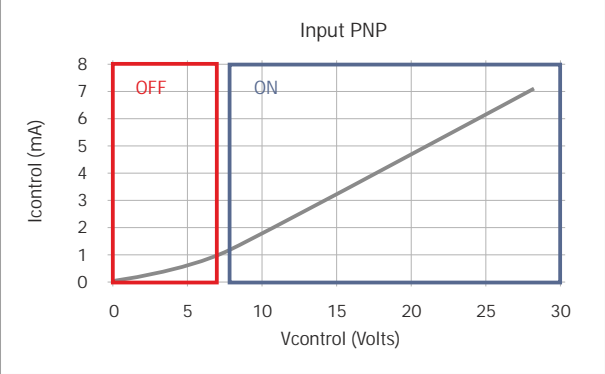
NPN wiring for ON/OFF mode



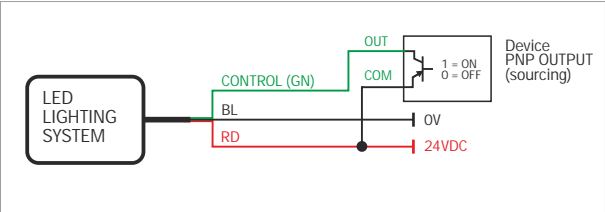
Electrical specifications	
0V to +6.8V	Light ON
+7.2V to +24V	Light OFF
Working conditions	25°C, VIN = 24V
Connection	Direct to a NPN output
Delay from OFF to ON state	<5 µs
Delay from ON to OFF state	<5 µs
Bias voltage in control input	7.9V
Input impedance	7K9 ?

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

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



PNP wiring for ON/OFF mode

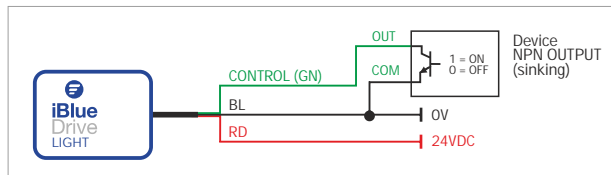


Electrical specifications	
0V to +6.8V	Light OFF
+7.2V to +24V	Light ON
Working conditions	25°C, VIN = 24V
Connection	Direct to a PNP output
Delay from OFF to ON state	<5 µs
Delay from ON to OFF state	<5 µs
Bias voltage in control input	0V
Input impedance	4K ?
Compliance	IEC1131-2 Type 1, 2 and 3

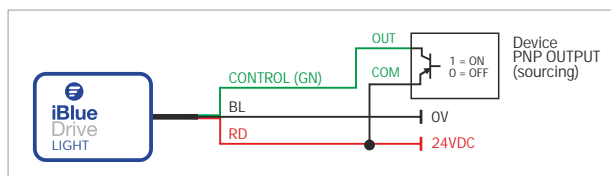
► Z1.2 - iBlueDrive control input wiring

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

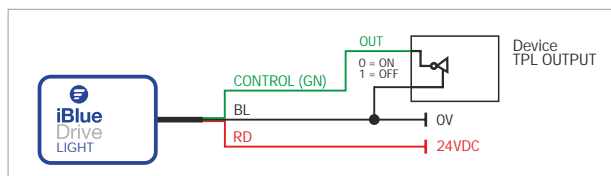
NPN wiring for strobe or ON/OFF mode



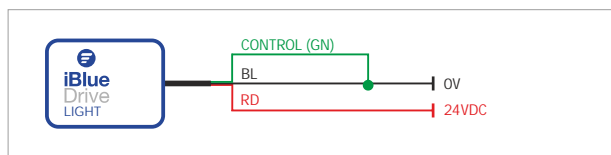
PNP wiring for strobe or ON/OFF mode



TTL wiring for strobe or ON/OFF mode

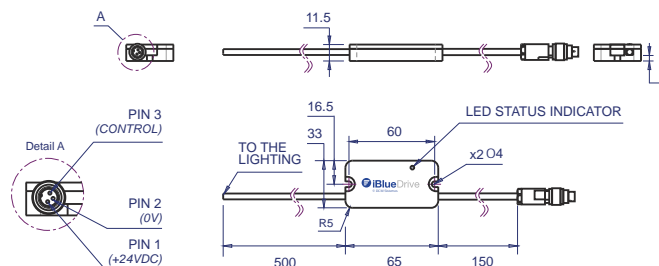


Wiring for continuous mode



► Z1.3 - 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.

► Z1.4 - Environmental Specifications

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

► Z2.1 - Modifiers legend

icon	Description	Code
	Narrow angle of emission	/AN
	Medium angle of emission (By default)	/AM
	Wide angle of emission	/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
	PNP input model	/P
	50mm focal Length	/F1
	150mm focal Length	/F2
	Infinite focal Length	/F3

► Z2.2 - 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
	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

► 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

► Z2.4 - Technical drawings legend

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

► Z2.5 - 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

► 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

► Z2.7 - Types of light legend

icon	Description
	Direct light
	Diffuse light
	Ultra-diffuse light