

PRC SERIES

Compact high-powered lights projectors

PRC21.01

High power LEDs projector specially designed to illuminate big areas with small lights, due to its angle of emission. This system produces great contrast and emphasizes textures, relieves and fisures that the lighted object could have because any relief, even the smallest one, produces a shadow.

Technical specifications¹ Þ

| Lighting model | PRC0604C | PRC0606B | PRC0608C |
|--|---|---|--|
| | 8 | | |
| Dimensions | 60x50x24 | 75x66x55 | 60x50x24 |
| LEDs number | 4 | 4 | 8 |
| RWD (mm) | >50 | >50 | >50 |
| Emission angle | Identified as modifier. /AM | l angle by default. Select ano | ther to change it. |
| Weight | 140g | 375g | 140g |
| IP rating | IP65 | IP40 | IP65 |
| Mounting holes | (x4)M4I6 + (x3)M4I4.5 | (x4)M4J6 | (x4)M4J6 + (x3)M4J4.5 |
| Connection (Type C/S) | 3P aerial male connector. L= 150mm. PIN 1 = +24V \pm 3% PIN 2 = 0V PIN 3 = Control ² | 3P aerial male connector. L= 150mm. PIN 1 = +24V \pm 8% PIN 2 = 0V PIN 3 = Control ³ | N/A |
| Power cable (Not-included) | VCC Series | VCC Series | N/A |
| Modifiers ⁴ | | AN AN AV (D PNP | |
| Accessories ⁵ | 8 | | |
| iBlueDrive tech. | N/A | N/A | Built-in |
| iBlueDrive connection | N/A | N/A | 3P aerial male connector. L= 150mm. PIN 1 = +24V ±8% PIN 2 = OV PIN 3 = Control ⁶ |
| iBlueDrive power cable (Not-included) | N/A | N/A | VCC Series |
| iBlueDrive Accessories ⁵ | N/A | N/A | ®@1 |
| | | | |

Instantaneous consumption⁷ (max.)

| Lighting model PRC0604C PRC0608B PRC0608C TYPE C 0 5.5W 12W N/A 0 5.5W 10W N/A 0 N/A 10W N/A 0 N/A 10W N/A 0 N/A N/A N/A 0 N/A N/A N/A 10 N/A N/A N/A 10 N/A N/A N/A 10 N/A N/A N/A 10 N/A < | | | (| | | |
|---|---------------------|---|---------------------|--------------------------------------|----------------|--------|
| TYPE C 0 5.5W 10W N/A 24VDC 6 5.5W 10W N/A 0 N/A 10W N/A 0 N/A 10W N/A 0 N/A N/A | Lighting model | | PRC0604C | PRC0606B | PRC0608C | |
| TYPE C 0 5.5W 10W N/A 24VDC 0 5.5W 10W N/A 0 No Type P' standard LED lighting systems in this series Image: Standard LED lighting systems in this series 0 N/A N/A N/A 0 N/A N/A N/A 0 N/A N/A N/A 0 N/A N/A N/A 10 N/A N/A N/A 10 N/A N/A N/A 10 N/A N/A N/A 1000mA/24W channel N/A Image: Standard LED lighting sylaswides 10 N/A | | 0 | 5.5W | 12W | N/A | -400C |
| 24VDC 6 5.5W 10W N/A 6 5.5W 10W N/A 6 5.5W 10W N/A 6 5.5W 6W N/A 7 9 5.5W 10W N/A 7 9 5.5W 10W N/A 7 9 5.5W 10W N/A 7 9 No Type P' standard LED lighting systems in this series 10W N/A 7 9 9 5.4 N/A N/A 9 N/A N/A N/A N/A 9 0 N/A N/A N/A 9 N/A N/A 13W[48W/6.5W] 13W[48W/6.5W] 9 N/A N/A 13W[48W/6.5W] 13W[48W/6.5W] 9 N/A | | B | 5.5W | 10W | N/A | -470C |
| Image: Solution Solution N/A 0 55W 6W N/A 0 5.5W 10W N/A 100 N/A N/A 100 N/A N/A 100 N/A N/A 1000 N/A N/A 10000 N/A N/A 10000 N/A N/A 10000 N/A N/A 100000 N/A N/A 10000000 N/A N/A 100000000 N/A N/A 1000000000 N/A N/A 10000000000 N/A | | G | 5.5W | 10W | N/A | -525C |
| Image: Weight of the second | 24VDC | ß | 5.5W | 10W | N/A | -630C |
| TYPE P No Type P' standard LED lighting systems in this series TYPE S Dmax= ½0 Ton max= 2ms 0 N/A N/A N/A 0 N/A N/A N/A N/A 0 N/A N/A N/A 1000mA/24W channel N/A 13W[48W/6.5W] 0 N/A N/A 13W[48W/6.5W] 0 N/A N/A 13W[48W/6.5W] 0 N/A N/A 12W[34W/5.6W] 0 N/A N/A 7.7W[24W/4,1W] </td <td></td> <th></th> <td>5W</td> <td>6W</td> <td>N/A</td> <td>-850C</td> | | | 5W | 6W | N/A | -850C |
| TYPE S Dmax= ½0 Ton max= 2ms N/A N/A N/A 0 N/A N/A N/A 1000mA/24W channel N/A N/A 0 N/A N/A 13W[48W/6.5W] 0 N/A N/A 13W[48W/6.5W] 0 N/A N/A 12W[34W/5.6W] 0 N/A N/A 7,7W[24W/4,1W] | | W | 5.5W | 10W | N/A | -WOOC |
| TYPE S Dmax= ½0 Ton max= 2ms N/A N/A N/A Imax= ½0 Ton max= 2ms N/A N/A N/A N/A Imax= ½0 Ton max= 2ms N/A N/A N/A N/A Imax= 2ms Imax= 2ms N/A N/A N/A Imax= 2ms Imax= 2ms Imax= 2ms N/A N/A Imax= 2ms Imax= 2ms N/A N/A N/A Imax= 2ms Imax= 2ms Imax= 2ms N/A N/A Imax= 2ms | TYPE P | | No 'Type P' standar | d LED lighting systems in this serie | 5 | |
| Dmax= ½0 Ton max= 2ms I N/A N/A N/A Imax= 2ms Imax= 2ms Imax= 1/20 Imax= 1/20 Imax= 2ms N/A N/A N/A Imax= 2ms Imax= 2ms Imax= 1/20 Imax= 1/20 Imax= 2ms N/A N/A N/A Imax= 2ms Imax= 2ms Imax= 1/20 Imax= 1/20 Imax= 2ms N/A N/A N/A Imax= 2ms Imax= 2ms Imax= 2ms N/A N/A N/A Imax= 2ms Imax= 2ms Imax= 2ms Imax= 2ms Imax= 2ms Imax= 2ms Imax= 2ms Imax= 2ms Imax= 2ms N/A N/A N/A Imax= 2ms Imax= 2ms Imax= 2ms Imax= 2ms N/A N/A Imax= 2ms Imax= 2ms Imax= 2ms N/A N/A N/A Imax= 2ms Imax= 2ms Imax= 2ms N/A N/A N/A Imax= 2ms Imax= 2ms Imax= 2ms N/A N/A Imax= 2ms Imax= 2ms Imax= 2ms Imax= 2ms Imax= 2ms Imax= 2ms Imax= 2ms <td></td> <th>0</th> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>-400S</td> | | 0 | N/A | N/A | N/A | -400S |
| Ton max= 2ms Image: Constraint of the system o | | B | N/A | N/A | N/A | -470S |
| Image: Second system N/A N/A N/A Image: Second system Image: Second system Second system Second system Image: Second system Image: Second system N/A N/A N/A Image: Second system Image: Second system Image: Second system Second system Second system Image: Second system Image: Second system N/A N/A Second system Image: Second system Image: Second system Image: Second system Second system Second system Image: Second syste | | G | N/A | N/A | N/A | -525\$ |
| Image: Weight of the system N/A N/A N/A Image: Weight of the system N/A N/A N/A Image: Weight of the system N/A 1000mA/24W channel N/A Image: Weight of the system Image: Weight of the system N/A 13W[48W/6.5W] Image: Weight of the system Image: Weight of the system N/A 13W[48W/6.5W] Image: Weight of the system N/A N/A 13W[48W/6.5W] Image: Weight of the system N/A N/A 12W[34W/5.6W] Image: Weight of the system N/A N/A 7,7W[24W/4,1W] | | ß | N/A | N/A | N/A | -630S |
| Image: N/A 1000mA/24W channel N/A TYPE i ⁸ Image: O N/A N/A 13W[48W/6.5W] Image: Image: Image: O N/A N/A 12W[34W/5.6W] Image: Image: Image: Image: Image: O N/A N/A 7,7W[24W/4,1W] | | 0 | N/A | N/A | N/A | -850S |
| TYPE i ⁸ 0 N/A N/A 13W[48W/6.5W] B N/A N/A 13W[48W/6.5W] O N/A N/A 13W[48W/6.5W] O N/A N/A 13W[48W/6.5W] O N/A N/A 13W[48W/6.5W] O N/A N/A 12W[34W/5.6W] O N/A N/A 7,7W[24W/4,1W] | | W | N/A | N/A | N/A | -W00S |
| Image: Book of the state of the st | | 6 | N/A | 1000mA/24W channel | N/A | -RGBS |
| Image: Second system Image: Se | TYPE i ⁸ | 0 | N/A | N/A | 13W[48W/6.5W] | -400i |
| Blue N/A N/A ISW(48W/0.5W) Orive N/A N/A 12W(34W/5.6W) Image: N/A N/A N/A 7,7W(24W/4.1W) | | B | N/A | N/A | 13W[48W/6.5W] | -470i |
| Drive 0 N/A N/A 7,7W[24W/4,1W] | iBlue | G | N/A | N/A | 13W[48W/6.5W] | -525i |
| V N/A N/A 1,1W[24W/4,1W] | | ß | N/A | N/A | 12W[34W/5.6W] | -630i |
| W N/A 13W[48W/6.5W] | Drive | 0 | N/A | N/A | 7,7W[24W/4,1W] | -850i |
| | | W | N/A | N/A | 13W[48W/6.5W] | -W00i |

N/A= Not available

66

(1) Environmental specifications and iconography legend in additional annex Z1.2 and Z2. (2) Control input specifications of PRC0604C in additional annex Z1.1.

(3) Control input specifications of PRC0606B in additional annex Z1.1.

(4) Angles of emission of PRC 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).

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

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

(7) 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.

(8) Values of maximum instantaneous consumption of 'Type i' lighting systems in

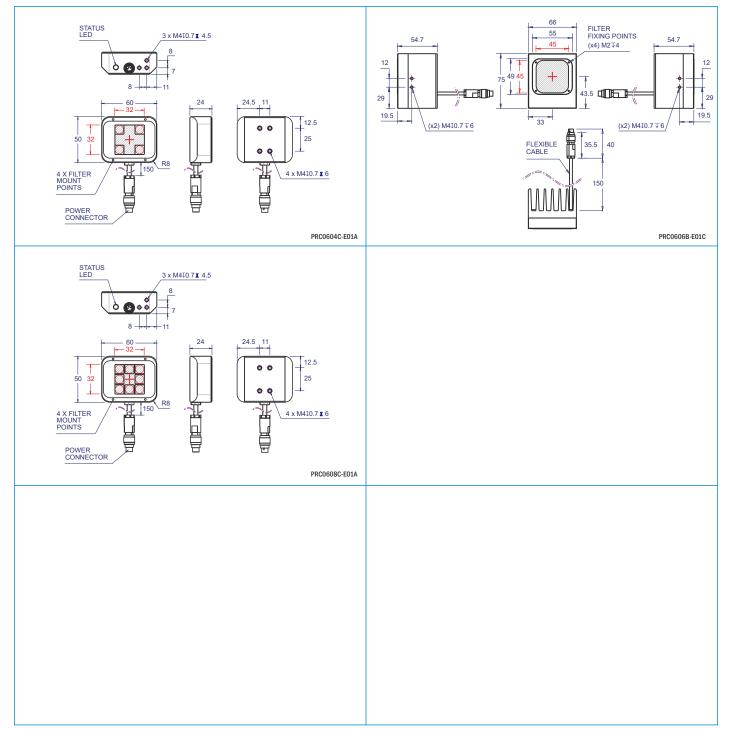
Powered mode [Strobe mode / Continuous mode]



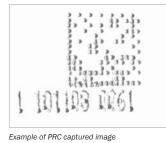
*WT

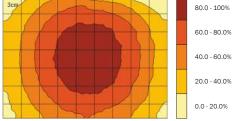


PRC SERIES

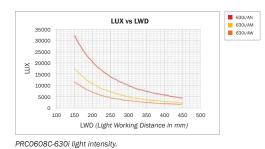


All units in millimeters, if not indicated.





Brightness distribution of PRC0608C-630i/AW@350mm



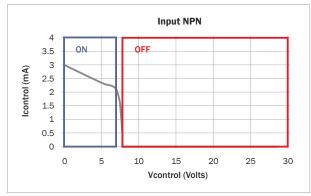
Product specifications and design are subject to change without prior notice. www.dcmsistemes.com



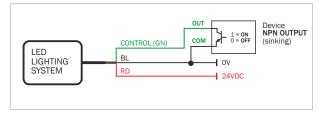
 Z1.1 - Control input NPN/PNP for 'Type C' lighting systems of DOL, PLA (PLA0513A and PLA1026A), PLC, PRC (PRC0604C and PRC0606B), PRH and PRK series.

NPN model (by default)

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



NPN wiring for ON/OFF mode

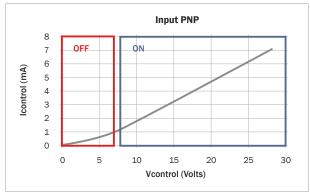


Electrical specifications

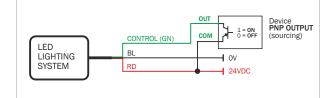
| • | | |
|-------------------------------|------------------------|--|
| 0V to +6.8V | Light ON | |
| +7.2V to +24V | Light OFF | |
| Working conditions | 25°C, VIN = 24V | |
| Connection | Direct to a NPN output | |
| Delay from OFF to ON state | <5 µs | |
| Delay from ON to OFF state | <5 µs | |
| 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

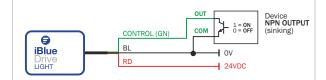
| 0V to +6.8V | Light OFF |
|-------------------------------|---------------------------|
| +7.2V to +24V | Light ON |
| Working conditions | 25°C, VIN = 24V |
| Connection | Direct to a PNP output |
| Delay from OFF to ON state | <5 µs |
| Delay from ON to OFF state | <5 µs |
| Bias voltage in control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



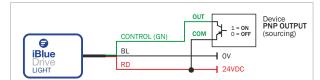
Z2.1 - iBlueDrive control input wiring

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

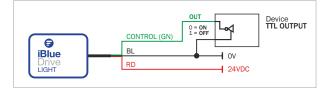
NPN wiring for strobe or ON/OFF mode



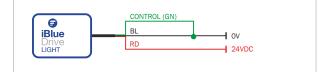
PNP wiring for strobe or ON/OFF mode



TTL wiring for strobe or ON/OFF mode



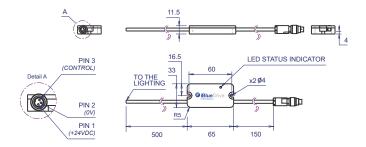
Wiring for continuous mode



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 |
|---------------------------|---|---------------------------------|
| (4 ₈) | Accessorie to configure iBlueDrive devices: iBlueDrive Box, iBlueDrive USB | VTA0005A, VTA0006A, VTA0007A |
| | iBlueDrive optocoupler | VTA0020A |
| 0 | iBlueDrive potentiometer | VTA0030B |



Z2X21.01

Z3.1 - Environmental Specifications

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

Z3.2 - Modifiers legend

| icon | Description | Code |
|--------------|--|----------|
| | Narrow angle of emission | /AN |
| | Medium angle of emission (default) | /AM |
| | Wide angle of emission | /AW |
| | Oval angle of emission = $23-24^{\circ}$ (x) 17-18° (y) | /A0 |
| (1D | Diffuse emission | /AD |
| \bigotimes | 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 |
| <i>f</i> 2 | 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 |
|--------------|------------------------------------|----------------------|
| (w) | Power cable/s | VCB, VCC, VCD Series |
| (/*) | Other cable/s | VCU, VCL |
| | Strobe and RGB controller/s | VST, VSC Series |
| \bigotimes | 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 |
| (%) | Darkfield converter | VRF |
| \bigcirc | Protector filter | VPT |
| * | Heat dissipator | VHD |
| \bigotimes | Fixing bracket | VBA, VBB, VBC Series |

Z3.4 - Technical drawings legend

| icon | Description |
|----------|-----------------------------|
| × | Optical axis |
| A.M. | Viewing window dimensions |
| _ | Lighting elements |
| + | Light emission center |
| N | Lighting surface dimensions |

Z3.5 - Colours & Wavelegths legend

| icon | Wavelength | Colour | Code |
|------|-------------|--------|-----------|
| • | 365nm | UV- | -365 |
| 0 | 400nm | UV | -400 |
| B | 470nm | BLUE | -470 |
| G | 525nm | GREEN | -525 |
| ß | 630nm | RED | -630 |
| 0 | 850nm/880nm | IR | -850/-880 |
| W | | WHITE | -W00 |
| 6 | | 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 |
| 11 | Projector lighting |
| | Axial lighting |

Z3.7 - Types of light legend

| icon | Description |
|-----------|---------------------|
| \oslash | Direct light |
| | 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@visionconsultancy.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 Scan me to visit machine-vision-shop

