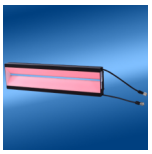
DOL21.01

# DOL SERIES

## Linear dome lights

Diffuse and linear domes for linear cameras use. They provide powerful and uniform light with no shades along the whole scanning line. The independent control of their two halves plus the flexibility of iBlueDrive technology to control LED lights gives this series the best adaptability in adjusting lighting parameters.

### Technical specifications[1]

| Lighting model | DOL0100A* | DOL0250A* | DOL0400A* |
|---|---|---|---|
| |  |  |  |
| **Dimensions** | 104x103x38 | 254x103x38 | 404x103x38 |
| **Active surface** | (x2) 100x35 | (x2) 250x35 | (x2) 400x35 |
| **RWD (mm)** | <20 | <20 | <20 |
| **Weight** | 350g | 788g | 1225g |
| **IP rating** | IP40 | IP40 | IP40 |
| **Mounting holes** | (x2)M4↧5 | (x4)M4↧5 | (x5)M4↧5 |
| **Connection** *(Type C)* | (x2) 3P aerial male connector. L= 150mm.<br>PIN 1 = +24V ±8%<br>PIN 2 = 0V<br>PIN 3 = Control[2] | (x2) 3P aerial male connector. L= 150mm.<br>PIN 1 = +24V ±8%<br>PIN 2 = 0V<br>PIN 3 = Control[2] | (x2) 3P aerial male connector. L= 150mm.<br>PIN 1 = +24V ±8%<br>PIN 2 = 0V<br>PIN 3 = Control[2] |
| **Power cable** | (x2) VCC Series | (x2) VCC Series | (x2) VCC Series |
| **Modifiers[3]** | PNP | PNP | PNP |
| **Accessories[4]** | N/A | N/A | N/A |
| **iBlueDrive tech.** | Built-in | N/A | N/A |
| **iBlueDrive connection** | 3P aerial male inline connector. L= 715mm.<br>PIN 1 = +24V ±8%<br>PIN 2 = 0V<br>PIN 3 = Control[5] | N/A | N/A |
| **iBlueDrive power cable** *(Not-included)* | VCC Series | N/A | N/A |
| **iBlueDrive accessories[3]** | | N/A | N/A |

(*) It has a LED indicator that informs you about the device state. This LED is normally OFF. In red, it indicates the overheating of the system. The system will switch off until it is cool again.

### Instantaneous consumption[6] (max.)

*WT

| Lighting model | | DOL0100A | DOL0250A | DOL0400A | |
|---|---|---|---|---|---|
| **TYPE C** 24VDC | B | 15W | 29W | 29W | -470C |
| | G | 15W | 29W | 29W | -525C |
| | R | 15W | 21W | 42W | -630C |
| | i | 15W | 24W | 24W | -850C |
| | W | 15W | 29W | 29W | -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[7]** iBlue Drive | B | 24W[48W/12W] | N/A | N/A | -470i |
| | G | 24W[48W/12W] | N/A | N/A | -525i |
| | R | 19W[48W/12W] | N/A | N/A | -630i |
| | i | 24W[48W/12W] | N/A | N/A | -850i |
| | W | 24W[48W/12W] | N/A | N/A | -W00i |

N/A= Not available

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

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

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

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

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

(6) 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.

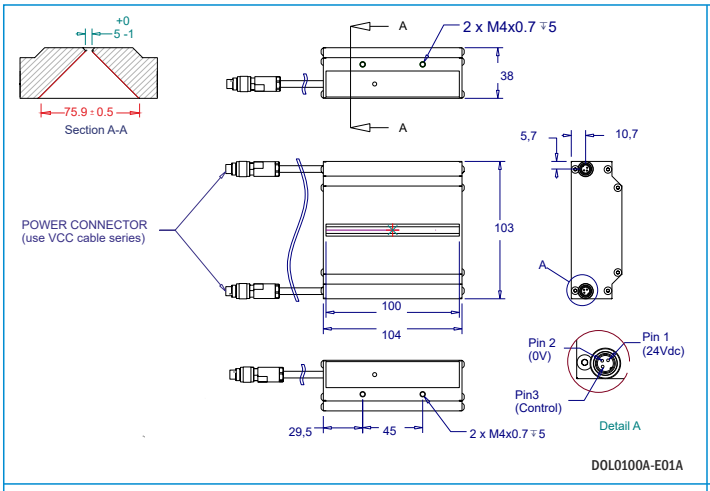
(7) Values of maximum instantaneous consumption of '**Type i**' lighting systems in ***Powered mode [Strobe mode / Continuous mode]***



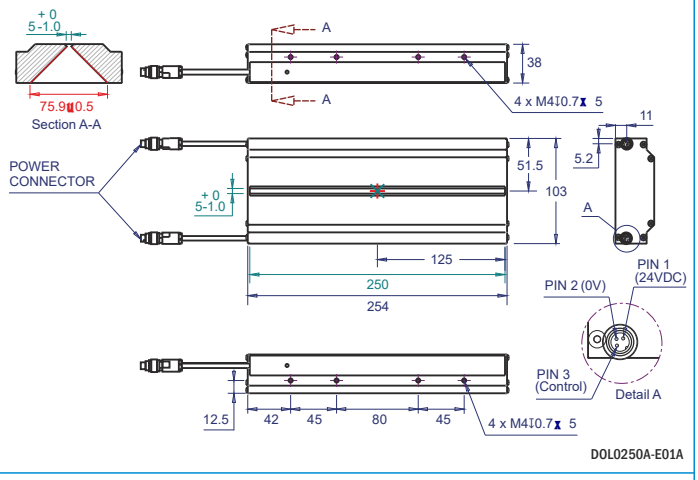
***ORDER REFERENCE = Lighting model + WT / MODIFIERS**

DOL21.01

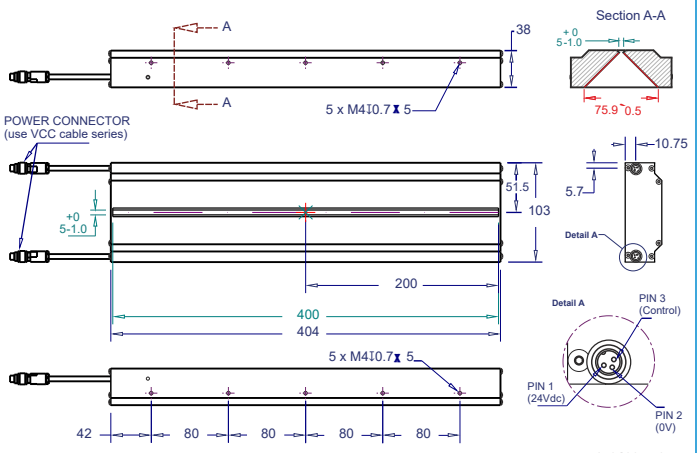
# DOL SERIES




DOL0100A-E01A

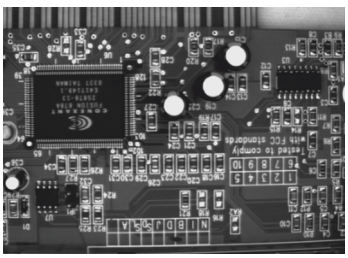



DOL0250A-E01A

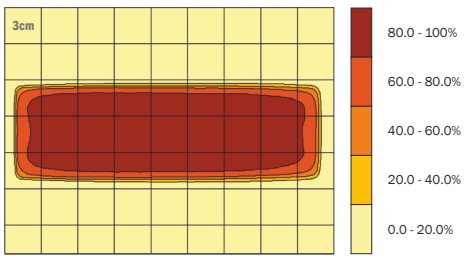



DOL0400A-E01A

All units in millimeters, if not indicated.



*Example of DOL captured image*

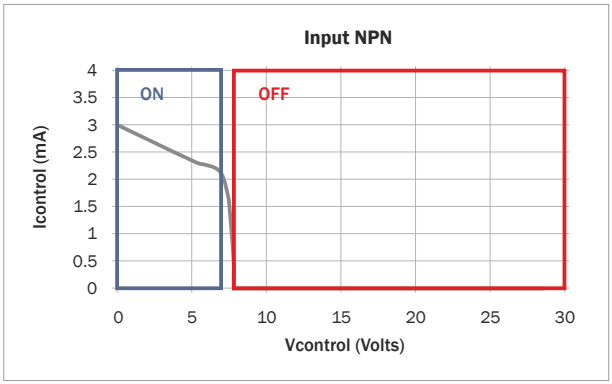



*Brightness distribution of DOL0250A-630C@5mm*

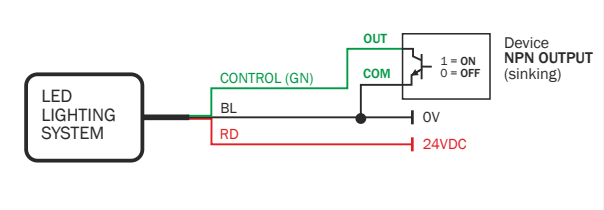
## ▶ Z1.1 - Control input NPN/PNP for 'Type C' lighting systems of DOL, PLA (PLA0513A and PLA1026A), PLC, PRC (PRC0604C and PRC0606B), PRH and PRK series.

### ■ NPN model (by default)

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



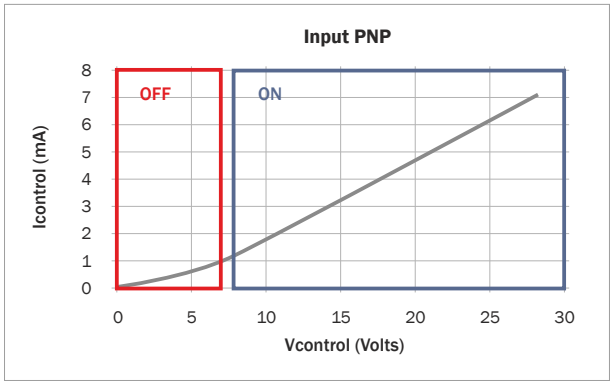

*NPN wiring for ON/OFF mode*



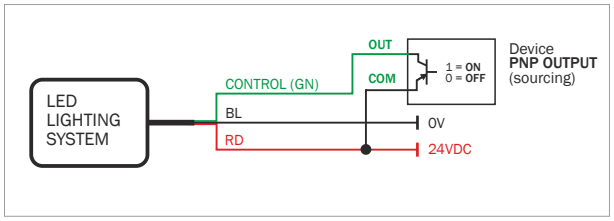

| Electrical specifications | |
|---|---|
| 0V to +6.8V | Light ON |
| +7.2V to +24V | Light OFF |
| Working conditions | 25°C, VIN = 24V |
| Connection | Direct to a NPN output |
| Delay from OFF to ON state | <5 µs |
| Delay from ON to OFF state | <5 µs |
| Bias voltage in control input | 7.9V |
|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

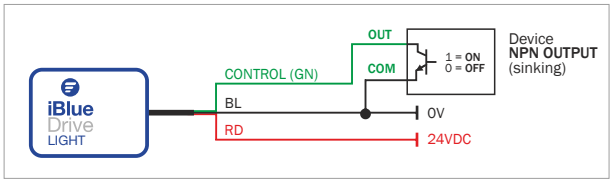



| Electrical specifications | |
|---|---|
| 0V to +6.8V | Light OFF |
| +7.2V to +24V | Light ON |
| Working conditions | 25°C, VIN = 24V |
| Connection | Direct to a PNP output |
| Delay from OFF to ON state | <5 µs |
| Delay from ON to OFF state | <5 µs |
| Bias voltage in control input | 0V |
| Input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

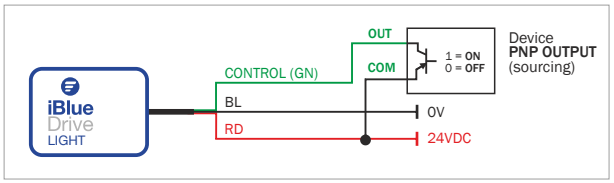
## ▶ Z2.1 - iBlueDrive control input wiring

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

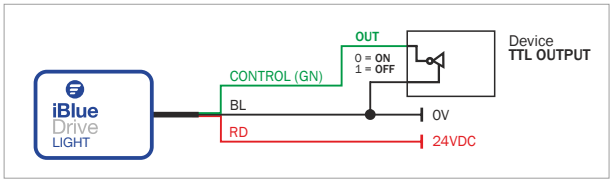
*NPN wiring for strobe or ON/OFF mode*



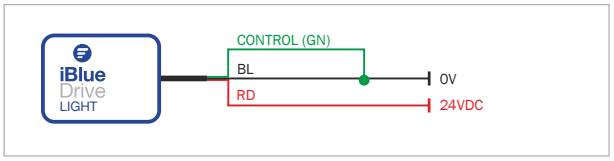

*PNP wiring for strobe or ON/OFF mode*




*TTL wiring for strobe or ON/OFF mode*

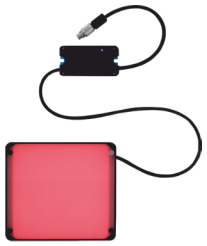


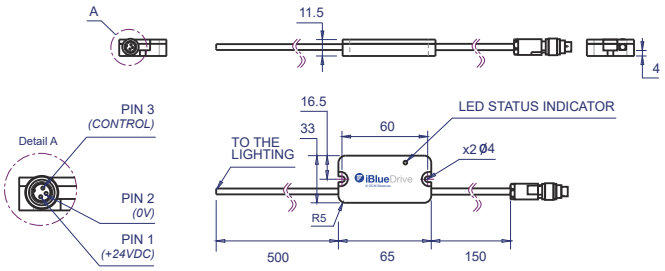

*Wiring for continuous mode*




## ▶ 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 |
|---|---|---|
| | Accessorie to configure iBlueDrive devices: **iBlueDrive Box, iBlueDrive USB** | **VTA0005A, VTA0006A, VTA0007A** |
| | iBlueDrive optocoupler | **VTA0020A** |
| | iBlueDrive potentiometer | **VTA0030B** |

## Z3.1 - Environmental Specifications

| | |
|---|---|
| **Max. Operating Humidity** | 85% non-condensing |
| **Operating Temperature** | 0 - 40ºC |
| **Storage Temperature** | 0 - 60ºC |
| **Housing material** | Anodized aluminium |
| **Standards** | CE, RoHS COMPLIANT |

## 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 = 23-24º (x) 17-18º (y) | **/AO** |
| | Diffuse emission | **/AD** |
| | Polarizer filter | **/FPL** |
| | Diffuser filter | **/FDR** |
| H | 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** |
| f3 | Infinite focal Length | **/F3** |
| XS | Lighting by sectors = 2 or 4 sectors | **/2S /4S** |

## Z3.3 - 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** |
| | Collimater filter on **x** axis | **VCFx** |
| | Collimater filter on **y** axis | **VCFy** |
| | Collimater filter on **xy** axis | **VCFxy** |
| | Darkfield converter | **VRF** |
| | Protector filter | **VPT** |
| | Heat dissipator | **VHD** |
| | Fixing bracket | **VBA, VBB, VBC Series** |

## Z3.4 - Technical drawings legend

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

## Z3.5 - Colours & Wavelegths legend

| icon | Wavelength | Colour | Code |
|---|---|---|---|
| -u | 365nm | UV- | **-365** |
| U | 400nm | UV | **-400** |
| B | 470nm | BLUE | **-470** |
| G | 525nm | GREEN | **-525** |
| R | 630nm | RED | **-630** |
| i | 850nm/880nm | IR | **-850/-880** |
| W | | WHITE | **-W00** |
| | | 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 |
| | Projector lighting |
| | Axial lighting |

## Z3.7 - Types of light legend

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