

# WenglorTPL Vision Lighting High-Powered Back Light

**wenglor**TPL



**OPT2420**

The WenglorTPL Vision Back light is a high-powered solution for all backlighting applications and quality control tasks, including detection of presence/absence, analysing edge defects, liquid fill level measurement and silhouetting.

The WenglorTPL Vision Back Light has exceptionally narrow borders (only 4mm wide), making the useful illumination area of the light easy to integrate into your system. The unit's LEDs are mounted with highly efficient lenses, engineered to distribute the highest brightness and uniformity balance available for machine vision backlights.

The Back Light also features integrated current control, making it easy to wire, install and use.

## WenglorTPL Vision Back Lighting Selection Guide

Part Number	Price	Color of Light	Light Temperature	Area of Light	Overdrive	Mode of Operation	Drawings
<a href="#"><u>OPT2418</u></a>	\$676.00	White	5700K	200 x 200mm [7.87 x 7.87 in]	No	Continuous or strobe	<a href="#"><u>PDF</u></a>
<a href="#"><u>OPT2420</u></a>	\$1,135.00			300 x 300mm [11.81 x 11.81 in]			<a href="#"><u>PDF</u></a>
<a href="#"><u>OPT2422</u></a>	\$1,646.00			400 x 400mm [15.75 x 15.75 in]			<a href="#"><u>PDF</u></a>

## WenglorTPL Vision Infrared Back Lighting Selection Guide

Part Number	Price	Color of Light	Wavelength	Area of Light	Overdrive	Mode of Operation	Drawings
<a href="#"><u>OPT2419</u></a>	\$841.00	Infrared	850nm	200 x 200mm [7.87 x 7.87 in]	No	Continuous or strobe	<a href="#"><u>PDF</u></a>
<a href="#"><u>OPT2421</u></a>	\$1,546.00			300 x 300mm [11.81 x 11.81 in]			<a href="#"><u>PDF</u></a>
<a href="#"><u>OPT2423</u></a>	\$2,271.00			400 x 400mm [15.75 x 15.75 in]			<a href="#"><u>PDF</u></a>

## WenglorTPL Vision Lighting Bracket Selection Guide

Part Number	Price	Description	Material	Qty in Package	Drawing
<a href="#"><u>OPT2433</u></a>	\$82.00	Mounting bracket	Aluminium	4	<a href="#"><u>PDF</u></a>



**OPT2433**

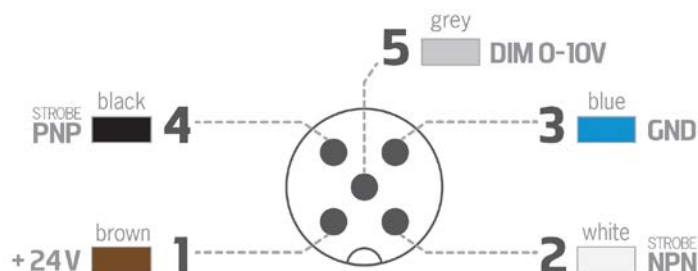
# WenglorTPL Vision Lighting High-Powered Back Light

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## Back Light General Specifications

Electronics	
Power Supply	24VDC $\pm 10\%$
Functioning Mode	Continuous or strobe
Strobe Input	PNP: From 5 to 24V for 100% ON. From 0 to 1V for 100% OFF NPN: Less than 1V for 100% ON. Above 2V for 100% OFF. Max 20V
Overdrive	No
Strobe Conditions (ON time, duty cycle)	No restriction
Dimming	Pin 5 (M12 5-pole connector): 0-10 V = 100-30% respectively
Maximum Rising Time	15 $\mu$ s
Maximum Falling Time	10 $\mu$ s
Control	Connector M12 5 poles
Consumption	White: 21.6 W (OPT2418), 48.6 W (OPT2420), 86.4 W (OPT2422) Infrared: 27.5 W (OPT2419), 61.9 W (OPT2421), 110 W (OPT2423)
Minimum Functioning Voltage	20V at the light input
Normal Functioning Voltage	24V at the light output ( $\pm 10\%$ )
Maximum Functioning Voltage	30V at the light input
Maximum Consumption Strobe Signal On Largest Product (400x400 mm)	250mA
Maximum Consumption Dimming Signal On Largest Product (400x400 mm)	150mA
Optics	
Color	White (5700K) Infrared (850nm)
Mechanics	
Thickness	45mm
Weight	23.2 kg/m <sup>2</sup> $\pm 15\%$
Materials	Aluminum and loaded ABS
Diffuser	White PMMA
Mounting	4 M4 nuts (supplied) to insert in the groove or 4 M4x20 screws (not supplied) applied to the corner slots
Environment	
Operating Temperature	-10°C to 40°C / 80% humidity without condensation No thermal shock (maximum temperature variation 10C in 24 hours)
Storage Temperature	-20°C to 60°C / 80% humidity without condensation No thermal shock (maximum temperature variation 10C in 24 hours)
IP Protection	IP40

## Connections



Strobe PNP		Strobe NPN	
1	+24V	1	+24V
2	Not connected	2	NPN
3	Ground	3	Ground
4	PNP	4	Not connected
5	Dim 0-10 V	5	Dim 0-10 V

Continuous Mode			
1	+24V	OR	+24V
2	Not connected		Ground
3	Ground		Ground
4	+24V		Not connected
5	Dim 0-10 V		Dim 0-10 V

# WenglorTPL Vision Lighting Flat Dome Light

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**OPT2435**

WenglorTPL Vision's Flat Dome Light is a high-power flat dome illumination solution for machine vision applications such as Pick and Place or Logistics. The LEDs are mounted with highly efficient lenses, engineered to distribute the highest brightness and uniformity balance available for machine vision applications.

The Flat Dome Light also features integrated current control, making it easy to wire, install and use. The central opening allows for simple placement of cameras using lenses up to 65mm [2.56 in] in diameter.

## WenglorTPL Vision White Illumination Flat Dome Light Selection Guide

Part Number	Price	Color of Light Emission	Temperature	Area of Light	Overdrive	Mode of Operation	Drawings
<a href="#">OPT2435</a>	\$1,002.00	White	5700K	200 x 200mm	No	Continuous or strobe	<a href="#">PDF</a>
<a href="#">OPT2437</a>	\$1,432.00			300 x 300mm			<a href="#">PDF</a>

## WenglorTPL Vision Infrared Illumination Flat Dome Light Selection Guide

Part Number	Price	Color of Light Emission	Wavelength	Area of Light	Overdrive	Mode of Operation	Drawings
<a href="#">OPT2436</a>	\$1,169.00	Infrared	850nm	200 x 200 mm	No	Continuous or Strobe	<a href="#">PDF</a>
<a href="#">OPT2438</a>	\$1,682.00			300x300 mm			<a href="#">PDF</a>

Part Number	Price	Description	Material	QTY in Package	Drawings
<a href="#">OPT2433</a>	\$82.00	Mounting Bracket	Aluminium	4	<a href="#">PDF</a>



**OPT2433**

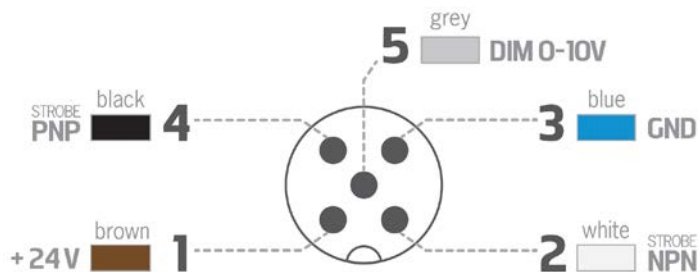
# WenglorTPL Vision Lighting Flat Dome Light

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## Flat Dome Light General Specifications

Electronics	
Power Supply	24VDC $\pm 10\%$
Functioning Mode	Continuous or strobe
Strobe Input	PNP: From 5 to 24V for 100% ON. From 0 to 1V for 100% OFF NPN: Less than 1V for 100% ON. Above 2V for 100% OFF. Max 20V
Overdrive	No
Strobe Conditions (ON time, duty cycle)	No restriction
Dimming	Pin 5 (M12 5-pole connector): 0-10 V = 100-30% respectively
Maximum Rising Time	15us
Maximum Falling Time	10us
Control	Connector M12 5 poles
Consumption	White: 21.6 W (OPT2435), 48.6 W (OPT2437) Infrared: 27.5 W (OPT2436), 61.9 W (OPT2438)
Minimum Functioning Voltage	20V at the light input
Normal Functioning Voltage	24V at the light output ( $\pm 10\%$ )
Maximum Functioning Voltage	30V at the light input
Maximum Consumption Strobe Signal On Largest Product (400x400 mm)	250mA
Maximum Consumption Dimming Signal On Largest Product (400x400 mm)	150mA
Optics	
Color	White (5700k) Infrared (850nm)
Mechanics	
Thickness	45mm
Internal Diameter	65mm
Weight	23.8 kg/m <sup>2</sup> $\pm 15\%$
Materials	Aluminum and loaded ABS
Diffuser	White PMMA
Mounting	4 M4 nuts (supplied) to insert in the groove or 4 M4x20 screws (not supplied) applied to the corner slots
Environment	
Operating Temperature	-10°C to 40°C / 80% humidity without condensation No thermal shock (maximum temperature variation 10°C in 24 hours)
Storage Temperature	-20°C to 60°C / 80% humidity without condensation No thermal shock (maximum temperature variation 10°C in 24 hours)
IP Protection	IP40

## Connections



Strobe PNP		Strobe NPN	
1	+24V	1	+24V
2	Not connected	2	NPN
3	Ground	3	Ground
4	PNP	4	Not connected
5	Dim 0-10 V	5	Dim 0-10 V

Continuous Mode			
1	+24V	OR	+24V
2	Not connected		Ground
3	Ground		Ground
4	+24V		Not connected
5	Dim 0-10 V		Dim 0-10 V