

Electronic LED Power Supply

OPTOTRONIC®

Power Supply Guide

OT6/100-240/10COS
 OT25/120/10
 OT50/120/10
 LED power supplies compatible with:
 10V LED Modules

OT6/100-240/24COS
 OT20/120-240/24S
 LED power supplies compatible with:
 24V LED Modules

OSRAM OPTOTRONIC power supplies are compact and electronically stabilized. The wide range of input voltage from 100 to 240 VAC enables worldwide use on single-phase AC power lines. These supplies are available in 10Vdc and 24Vdc outputs.

The OPTOTRONIC power supplies are protected against open circuit, short circuit, overload and overheating. They are UL recognized and FCC compliant.



Key System Features

- New, small enclosure size (OT6, OT20, OT25 fit into small junction box)
- Lightweight, low profile
- -20°C through 50°C operation
- Wide input voltage range
- Isolated output
- UL Class 2 output
- Weather resistant housing
- Long life
- Short circuit and overload protection
- Low power supply losses
- Remote mounting possible
- OT50 model rated for outdoor, damp locations

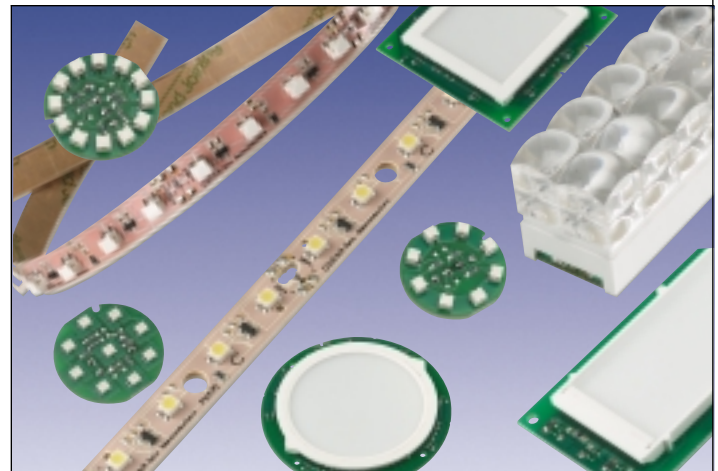
System Information

OSRAM SYLVANIA has introduced a full line of LED modules (Light Emitting Diodes) and power supply products. As a result of the steady increase in their luminous efficiency, LEDs are becoming an attractive alternative in general lighting.

LED modules can be used in a wide variety of applications due to our variable module design, module geometries, and range of available colors.

Exciting New Applications

- Wall and floor mounted luminaires
- Designer luminaires
- Illuminated advertising, i.e. the illumination of displays or advertising messages and signage
- Facade lighting
- Decorative, linear, and cove lighting as implemented at the Thomas Jefferson Memorial



Application Information

OSRAM OPTOTRONIC

power supplies are ideally suited for:

- Low & medium power applications
- Signs
- Compact installations
- Path and roadway marking
- Backlighting
- Step and seat marking
- Effect Lighting
- Panel lighting
- Ambience lighting inside furniture
- Wall washing
- General Lighting

LEDs are available in many different configurations. Below are some examples with their corresponding literature ordering codes:

Name	Description	Literature Ordering Code
LINEAR light	10V LED Modules	LED001
MARKER light	10V LED Rectangular Modules	LED002
MARKER light	24V LED Square and Circular Modules	LED003
EFFECT light	24V LED Modules	LED004
BACK light	10V LED Modules	LED005
COIN light SIDELED	24V LED Modules	LED009
COIN light TOPLED	24V LED Modules	LED010
LINEAR light FLEX TOPLED	24V Flexible LED Strip	LED011
LINEAR light FLEX SIDELED	10V Flexible LED Strip	LED012

For additional LED ordering information, contact OSRAM SYLVANIA.

ECS027R1

OPTOTRONIC® LED Power Supplies (DC Output)

Performance Guide

Power supply shall be LED OPTOTRONIC electronic power supply with [100 - 240], [120 - 240], [120] VAC input, [6], [20], [25], [50] watts output at [10.5], [24] VDC. Class 2 Outputs.

Specifications

UL Class 2 Outputs

Input Voltage Range:
 OT6: 94 – 254 VAC
 OT20: 108 – 254 VAC
 OT25, OT50: 108-132 VAC

Input Frequency: 50/60Hz
Ambient Temp. Range:
 -20°C through +50°C

Max. Case Temp.:
 OT6: 70°C
 OT20: 75°C
 OT25, OT50: 90°C

UL: OT6: UL 1950 Recognized for US and Canada, Class 2 Output
 OT20: UL 1310 Recognized for US and Canada, Class 2 Unit
 OT25, OT50: UL 1310, UL48 Recognized for US & Canada Class 2 Unit

CSA: OT6, OT25 & OT50 are CSA approved

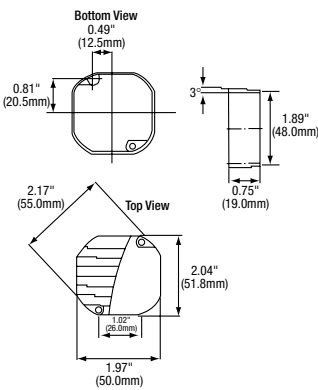
FCC 47CFR Part 15
OT6, OT20: Class B (residential)
OT25, OT50: Class A (commercial non-consumer)

Item Number	Description	Nominal Input Voltage (VAC)	Nominal Input Current (Amps)	Output Voltage (VDC)	Min. Power (W)	Max. Power (W)	Max. Line Ripple (V)	Remote Mounting (ft)
51500	OT6/100-240/10COS	100-240	0.150@120V 0.050@240V	10.5±0.5	0.2	6	±0.4V	26
51505	OT25/120/10	120	0.26@120V	10.5±1.0	3	25	±1.1V	10
51508	OT50/120/10	120	0.52@120V	10.5±1.0	10	50	±1.1V	8
51501	OT6/100-240/24COS	100-240	0.150@120V 0.050@240V	24.0±0.5	0.2	6	±0.4V	26
51512	OT20/120-240/24S	120-240	0.35@120V 0.23@240V	24.0±0.5	0.9	20	±0.2V	32

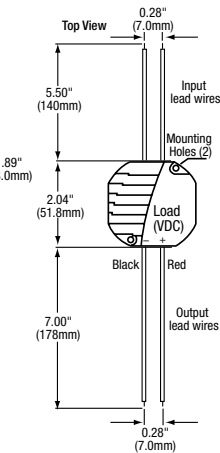
OT-6 Case:

Packaging:

Quantity: 20 pieces/carton
 Weight: 0.16 lbs each (approx.)
 3.72 lbs/carton



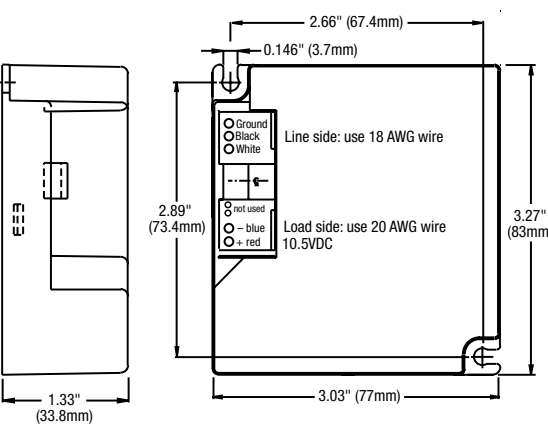
***Wiring:** Leads only (no connectors)
 Input: (18AWG wire)
 Output: (20AWG wire)



OT-25 Case:

Packaging:

Quantity: 72 pieces/carton
 Weight: 0.385 lbs each (approx.), 30.43 lbs/carton



***Wiring:** Connectors only (No leads provided) Use solid or tinned copper wire only

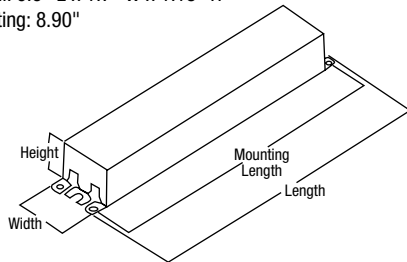
OT-50 Case:

Packaging:

Quantity: 20 pieces/carton
 Weight: 1.22 lbs each (approx.)
 24.70 lbs/carton

Dimensions "OT50" Enclosure:

Overall: 9.5" L x 1.7" W x 1.18" H
 Mounting: 8.90"

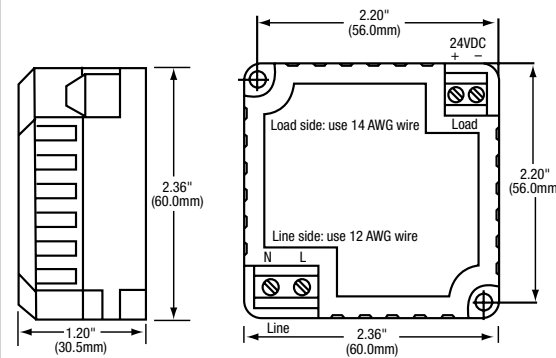


***Wiring:** Leads only (no connectors)
 Input: 9" (18AWG wire) black & white wires
 Output: 9" (18AWG wire) red+ & blue- wires

OT-20 Case:

Packaging:

Quantity: 30 pieces/carton
 Weight: 0.21 lbs each (approx.)
 6.30 lbs/carton



***Wiring:** Connectors only (No leads provided) Use solid or stranded copper wire only

System Life / Warranty

OPTOTRONIC LED Power Supply Products are covered by our QUICK 60+ system warranty, a comprehensive light source, ballast and power supply system warranty. For additional details, refer to our latest version of the QUICK 60+ warranty bulletin.

Ordering Guide

Item Number: 51500 OT 6/ 100-240/ 10 COS
 OPTOTRONIC
 Output Wattage (6 watts)

Circular Opto Semi-conductor; S: square
 Output Voltage (DC)
 Input Voltage (AC)

Specifications subject to change without notice.

Electronic LED Dimming Module OPTOTRONIC® OTDIM

Dimming Module Guide

OTDIM operates in conjunction with the following LED Power Supplies:

- OT6/100-240/10COS
- OT6/100-240/24COS
- OT20/120-240/24S

Key System Features

- Lightweight, low profile
- -20°C through 50°C ambient operation
- Long life
- Utilizes pulse width modulation, (PWM)
- 1 – 10 VDC control voltage
- Dimming Range: 0 – 100%
- 10V – 24 VDC Input Voltage
- Short Circuit, Overload and Overheating Protection

Application Information

OSRAM OPTOTRONIC OTDIM modules are ideally suited for:

- Backlighting signs and panels
- Path and roadway marking
- Step and seat marking
- Ambience lighting inside furniture
- Effect lighting
- Panel Lighting
- Wall washing
- General lighting
- Any application where a variable amount of light is desirable
- Combining with multi-color LED modules for color mixing

The OPTOTRONIC OTDIM are compact electronically stabilized dimming modules with a nominal output power of 50 watts at 10 VDC and 120 watts at 24 VDC. The range of input line voltage from 10 – 24 VDC enables use on most popular LED power supply modules.

The OTDIM module provides open circuit, short circuit, overload and overheating protection.

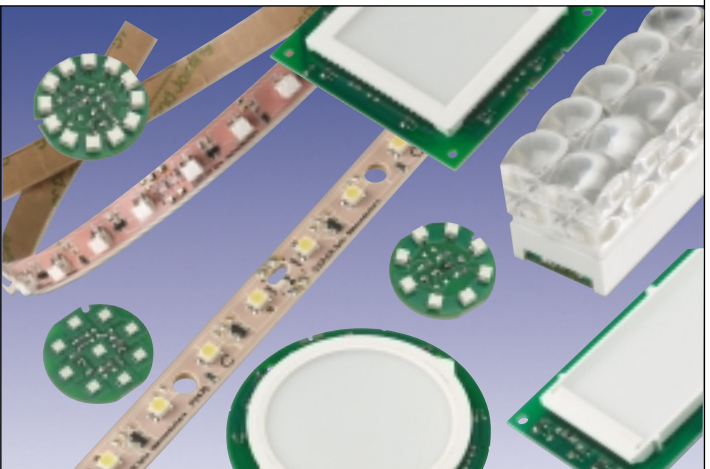
Newly introduced by OSRAM SYLVANIA for dimming light emitting diodes, the OT DIM control module completes the system of innovative control gear and opens up even more possibilities for dynamic control of LED based lighting solutions. It is ideal for use in color mixing applications in combination with multi-color LED modules.

System Information

To combine with the variety of LED modules, OSRAM SYLVANIA offers specifically matched OPTOTRONIC Power Supply Units with rated voltages of 10V and 24V.

The OT DIM control module operates on the principle of pulse width modulation and is used on the secondary side of the power supply unit, i.e. wired between the OPTOTRONIC and the LED modules (diagram). The OT DIM can be controlled via a 1 ... 10V interface.

In pulse width modulation, the power supply to the LED Modules is interrupted at a frequency of 135 Hz. This permits individual adjustment of the required light output. In this context, the high frequency provides flicker-free lighting. Pulse width modulation technology guarantees a linear dimming characteristic for the eye at maximum dimming speed without any color shift from the LED.



OPTOTRONIC® OTDIM Module

OT DIM

Item Number	Description	Nominal Input Voltage (VDC)	Nominal Input Current (A)	Control Voltage (VDC)	Output Power (W)	Max. Output Current (A)
51516	OTDIM	10.5	5.3	0-10VDC	0-52.5	5
		24	5.3	0-10VDC	0-120	5

Performance Guide

Dim module shall be an LED OPTOTRONIC electronic dimming module with 10 - 24 VDC input, with 0 -10 VDC control voltage.

Specifications

Dimensions:

6.77" L x 1.65" W x 0.79" H
(172mm L x 42mm W x 20mm H)

Lead Lengths:

Non-lead

Wiring Requirements:

Input, load and control wires: 14AWG solid or stranded Cu only

Packaging:

Quantity: 20 pieces/carton
Weight: 0.165 lbs ea. (approx.)
3.3 lbs/carton

Dim Module

Input Voltage Range: 9.5-25VDC

Input Current: 5.3 Amps max.

Output Frequency: 135 Hz

Output Current: 5 Amps max.

Dimming Range: 0 - 100%

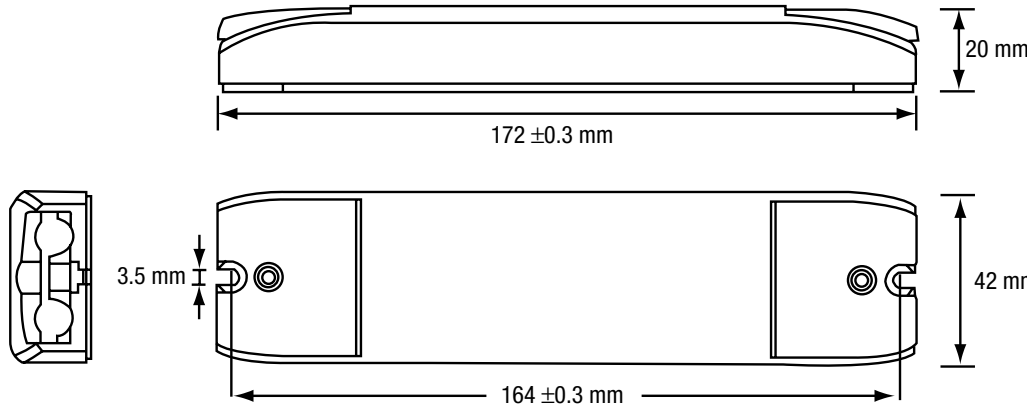
Control Voltage: 0 - 10 VDC,
0.6 ma max.

Temp. Range: -20°C through
+50°C

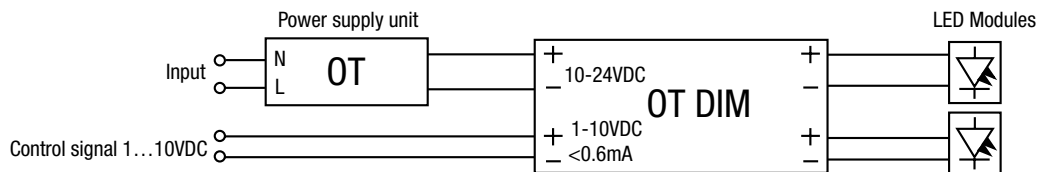
Max. Case Temperature: 70°C

Color Mixing: Yes*

* For compatibility information with color mixing protocols/1-10V dimming controls, contact OSRAM SYLVANIA.



Wiring Diagram:



System Life / Warranty

OPTOTRONIC OTDIM are warranted for 5 years. OPTOTRONIC and QUICKTRONIC Products are covered by our QUICK 60+ system warranty, a comprehensive light source, ballast and power supply system warranty. For additional details, refer to our latest version of the QUICK 60+ warranty bulletin.

Item Number _____ 51516 OT DIM
OPTOTRONIC _____
Dimming Module _____

Ordering Guide

Specifications subject to change without notice.