OPTOTRONIC®
OT 80/220-240/24 DIM P

Dimmable Constant Voltage LED Power supply for 24V LED - Modules

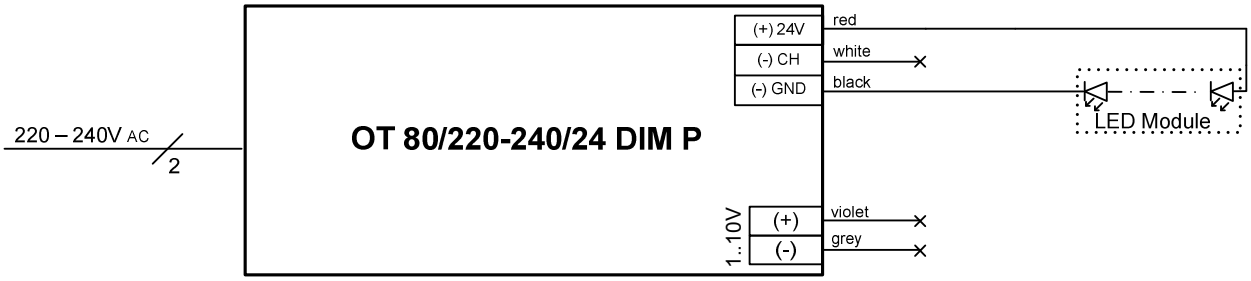
1. Technical Data

Nominal Voltage	220 – 240 Vac
Input Voltage	198 – 264 Vac
Line Current, nominal	0,4A@230 Vac
Mains Frequency	50 / 60 Hz
Power Factor	= 0.95 @ 230 Vac
Interface	1…10V insulated
IP Rating	IP 67
Max Output Power	80 Watt

Output Voltage	24 Vdc (-0,5V/+0,9V)
Efficiency	87% @230Vac
Ambient Temperature Ta	-25°C to +55°C
Max. Case Temperature at Tc	+ 80°C
Max. Cable Length	10m
Max load per circuit breaker B10	7
Max load per circuit breaker B16	10
Max load per circuit breaker C10	10

2. Connection Schemes

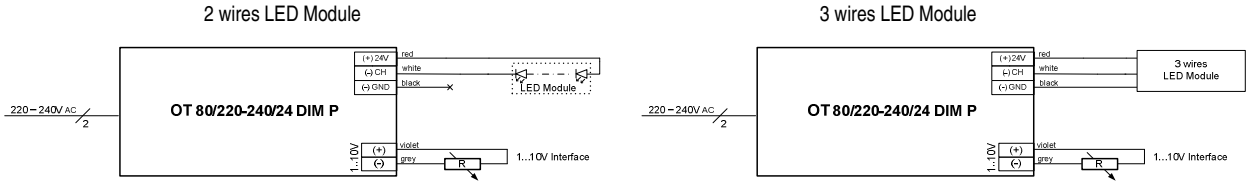
a. *Non – Dim* operation



Ensure proper insulation of not connected wire terminals.

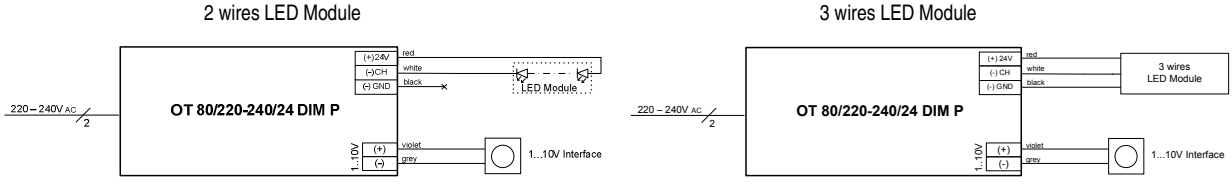
b. *Dim* operation

i. *Non – Dim* operation 3 wires LED module



a) Ensure proper insulation of not connected wire terminals.
b) The maximum input capacitance of all connected LED modules (dimmable) should be less the 130nF.
c) Required type of Potentiometer for use **= 47kOhm.**

ii. Control via 1…10 Dimmer



a) Ensure proper insulation of not connected wire terminals.
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OSRAM AG
www.osram.com

Steinerne Furt 62, 86167 Augsburg, Germany

No. 1, North Industrial Road
528000 Foshan Guangdong, P.R. China

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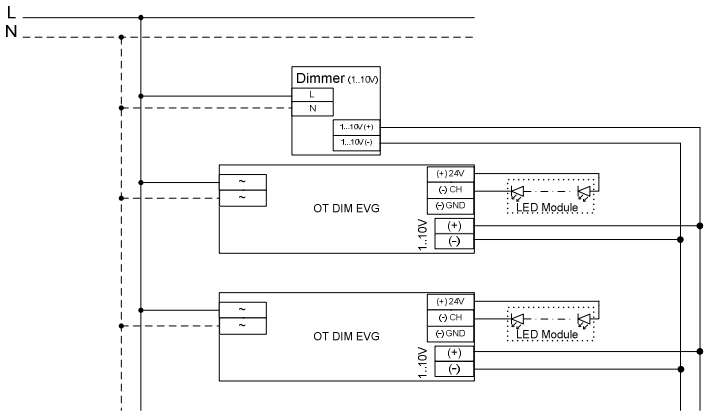
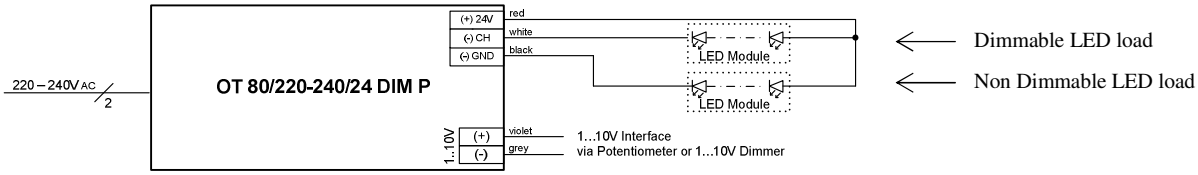
iii. Single control of more power supplies



Control of more OT 80/220-240/24 DIM P to an external Dimmer/Potentiometer. Thanks to the fully isolated 1…10V interface, two different kind of dimming devices are possible

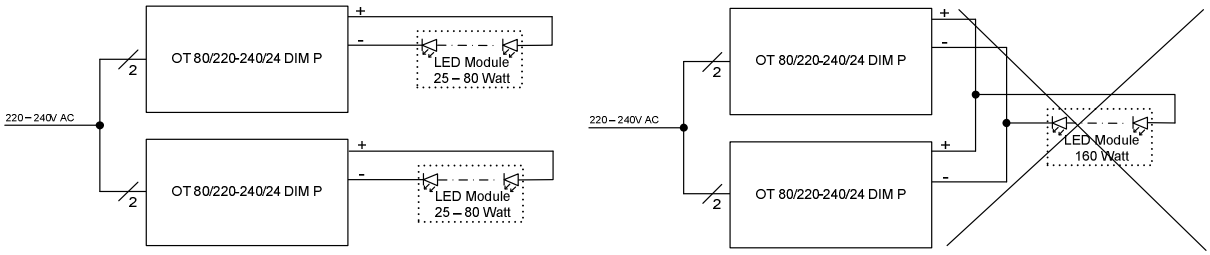
1) Potentiometer - the value will be 47K Ohm / **n** where **n** is the number of Power supplies to be controlled
2) Active Dimmer - Dimmer is connected to mains (see Figure 1c)

iv. Combination of “dimmable” and “non dimmable” LED Modules



The maximum input capacitance of all connected LED modules (dimmable) should be less the 130nF.

3. Safety



Power supplies can be connected in parallel on the primary side, but not on the secondary side

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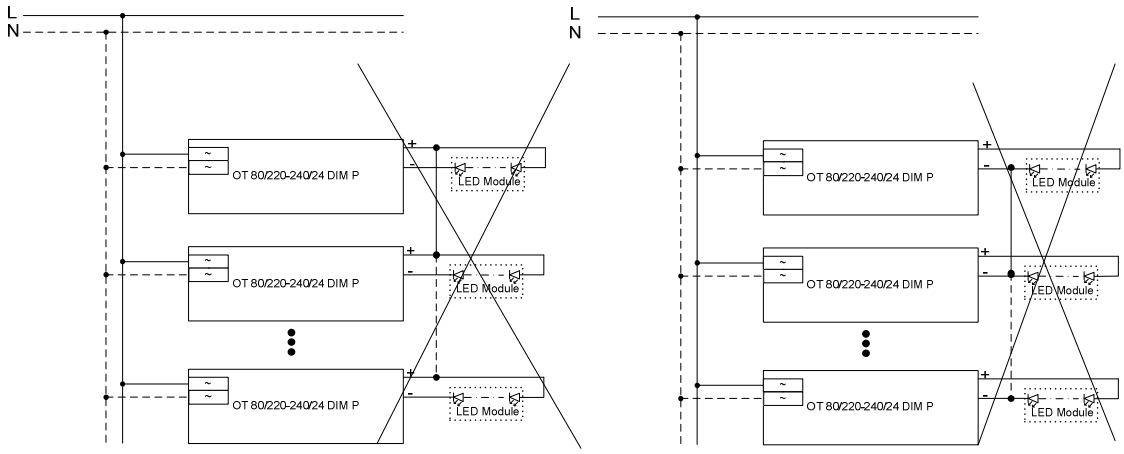

a) The installation of two ore more OPTOTRONIC® *OT 80/220-240/24 DIM P* Power supplies with common "-" or "+" is forbidden.

Wiring and Connection

- Ensure that the LED module load is within the range of rated voltage, current and power supply (see Technical data)
- Maximum output cable length is limited by EMI and cross diameter
- Use output cable sections adequate to the load demand
- The luminaire manufacturer is responsible for providing the required clearances and creepage distances and also for protection against electrical shock, especially for the line and load wires
- Please avoid direct exposure of sunlight and in case of exposure to UV rays, protect the cables with suitable silicone sheath.
- Not used output cables have to be insulated separately

Earth Connection

- OT 80/24 P is a "Protection Class II" power supply, therefore ground connection is not required

Mounting and Environmental protection

- The control gear is a build in type for luminaire integration
- Maximum permissible ambient temperature must not be exceeded. Make sure there is adequate space to avoid a build-up of heat. In critical installations the temperature at t_c has to be controlled

General Note

- Power supplies must be installed by a qualified electrician
- Disconnected from mains supplies before wiring work
- For further information see also "OPTOTRONIC – Technical guide" at www.osram.com

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