

LED Lighting Systems

LED Module System

Philips LED Module System (on/off)



Description

Philips LED modules on/off offer an integrated solution for easy access to LED lighting. Thanks to their small size and freedom of configuration, these modules offer extensive opportunities for new lighting concepts. The Philips LED Module System on/off is a complete LED subsystem for integration into luminaires and other applications.

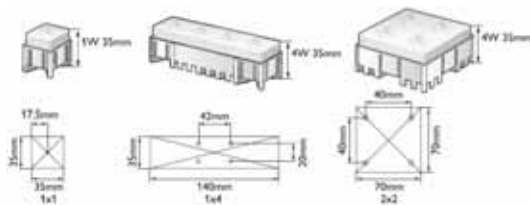
A highly versatile modular system that consists of LED Modules, Xitanium LED power drivers. The LED Modules contain LED's, optics, LED-driver electronics, control functions and an integrated heat sink to ensure reliable and highly efficient performance. The Xitanium drivers when used with the LMS LED Modules transform the mains supply into a stable 24V DC on which the LED Modules are operated.

The LED Modules are IP 67 rated suitable for outdoor and indoor use.

Choice is between LED Modules based on the "1 W" Luxeon. LED's are available in Warm white, Cool white, Red, Blue, Green and Amber.

The 1x1 module contains 1 LED, the square 2x2 and elongated 1x4 Modules both contain 4 LED's. Three different optics complete the choice package. A narrow beam optic (about $8^\circ = 8D$), a medium wide beam optic (about $36^\circ = 36D$) and for White LED Modules a line beam optic giving a light distribution of 8° in one direction and 50° in the perpendicular direction ($8D \times 50$).

Dimension control interface



Features and Benefits

- Modular system: many configurations possible
- Output consistency. The lumen output is calibrated to achieve a maximum deviation of +/- 15%
- Long life: low maintenance LED Module based on 1W: 35KHrs 70% lumen maintenance <5% failures at max. case temperature of 60° C.
- Integrated optics: ease of use, rapid system development
- Low voltage 20-24V DC operation of the LED Modules: safety, ease of use
- Burning Position is universal.

<p>Mounting Instruction</p>	<p>Application</p> <ul style="list-style-type: none"> Outdoor and indoor 						
<p>Maximum number of LED Modules to be connected to a 17w Xitanium driver:</p>							
<p style="text-align: center;">Connection in parallel</p>	<table border="1"> <thead> <tr> <th>Xitanium</th> <th>LMS 1W</th> <th>LMS 4W</th> </tr> </thead> <tbody> <tr> <td>17W</td> <td>n=9 max</td> <td>n=3 max</td> </tr> </tbody> </table>	Xitanium	LMS 1W	LMS 4W	17W	n=9 max	n=3 max
Xitanium	LMS 1W	LMS 4W					
17W	n=9 max	n=3 max					
<p>Warm & Coolwhite, Red, Blue, Green, Amber</p> <p>Narrow Beam:</p> <p>Medium Wide Beam:</p> <p>Line Beam:</p>	<p>Module Variety</p> <p>By color: Warm & Cool white, Red, Blue, Green, Amber</p> <p>By optics: Narrow beam, medium wide beam, line beam</p>						

Technical data
LED Module on/off

Shape	Wattage	Color	Optics beam	Type	Correlated color temp./ wavelength	Maximum power consumption	Lumen output (expected maximum case temp.)	Beam Intensity (expected maximum case temp.)	Advised maximum case temp.	Minimum ambient temp.
					K / nm	W	lm	cd	°C	°C
1x1	1W	Cool white	Narrow	LMS 1x1 1W 24VDC /763 8D on/off	6300	1,8	21	600	60	-30
			Medium	LMS 1x1 1W 24VDC /763 36D on/off	6300	1,8	21	80	60	-30
		Red	Narrow	LMS 1x1 1W 24VDC R 8D on/off	613,5-620,5	1,8	24	690	60	-30
			Amber	LMS 1x1 1W 24VDC A 8D on/off	589,5-592,0	1,8	10	270	60	-30
			Blue	LMS 1x1 1W 24VDC B 8D on/off	470,0-475,0	1,8	9	250	60	-30
			Green	LMS 1x1 1W 24VDC G 8D on/off	530,0-535,0	1,8	26	750	60	-30
2x2	4W	Warm white	Medium	LMS 2x2 4W 24VDC /932 36D on/off	3150	7,3	40	70	60	-30
				LMS 2x2 4W 24VDC /763 36D on/off	6300	7,3	88	320	60	-30
1x4	4W	Cool white	Line	LMS 1x4 4W 24VDC /763 8Dx50 on/off	6300	7,3	88	660	60	-30
				LMS 1x4 4W 24VDC R 8Dx50 on/off	613,5-620,5	7,3	96	710	60	-30
				LMS 1x4 4W 24VDC A 8Dx50 on/off	589,5-592,0	7,3	40	300	60	-30
				LMS 1x4 4W 24VDC B 8Dx50 on/off	470,0-475,0	7,3	36	270	60	-30
				LMS 1x4 4W 24VDC G 8Dx50 on/off	530,0-535,0	7,3	106	790	60	-30

Philips Xitanium LED Power Driver



Description

These drivers are included in the illumination segment of the Xitanium™ family of products. The Xitanium™ drivers are designed specifically to optimally power Luxeon™ high power LEDs. The constant DC current output provides the long life and optimum operation of high power LEDs. Xitanium™ drivers have an operating life matching that of LEDs.

Xitanium™ drivers also perfectly operate the Philips LED Module System: lighting blocks which can be joined in flexible “domino” like arrays.

New design opportunities

The Xitanium’s small, compact size enables you to innovate with new, low-profile designs.

Hazard-free

All the major safety requirements (as defined in CE, ENEC, KEMA, and UL) are met, so you can install them in practically any location.

Excellent reliability

Xitanium LED Drivers last up to 50,000 hours, to take advantage of the long life of LEDs. They come with the Philips electronic ballast guarantee.

Improved safety

Xitanium LED Drivers generate a limited output voltage and current and also provide isolation for safe operation.

Low-temperature performance (-40°C)

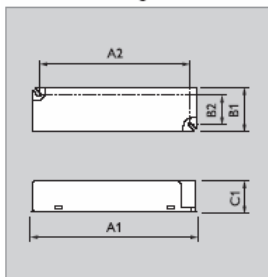
So you can be confident in any outdoor application (IP66).

Universality

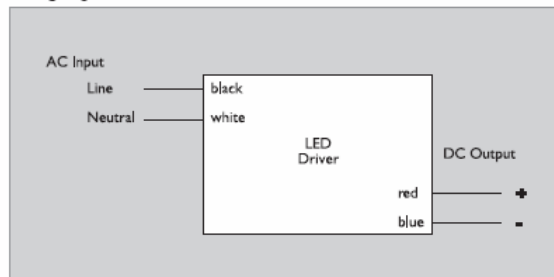
Although optimized for high power Luxeon LEDs, the Xitanium range of Drivers is also suitable for other LED based systems.

17W outdoor

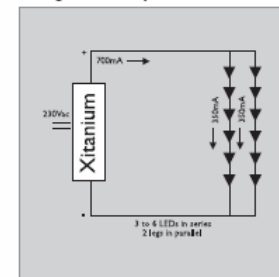
Dimensional drawing



Wiring diagram



Configuration arrays



Dimension drawing table

	A1	A2	B1	B2	C1	D1
17W outdoor	132,0	122,4	34,2	24,6	25,0	4,4