









Outdoor LED drivers – reliable, durable and efficient







OPTOTRONIC® 4DIM/DALI
Constant current, programmable






- 4DIM functionality in one device (StepDIM, AstroDIM, MainsDIM, DALI)
- Very high efficiency and reliability
- High surge protection: up to 8 kV (protection class I or II)
- Great flexibility due to wide operating temperature range of -40...55 or 60 °C
- Vibration- and humidity-protected (varnished, IP 20)
- Output current range: up to 1,050 mA
- Flexible current setting with multivendor LEDset2 interface (plug & play)
- Isolated DALI interface for bidirectional telemanagement systems
- Constant lumen function
- Overtemperature protection via external NTC and LEDset2 interface
- Suitable for protection class I and II luminaires


OPTOTRONIC® 2DIM/0-10 V LED (IP 64)
Constant current, programmable






- 2DIM functionality in one device (AstroDIM, 0–10V)
- High efficiency and reliability
- High surge protection: up to 6 kV (protection class I or II)
- Great flexibility due to wide operating temperature range of -40...55 °C
- High ingress protection (IP 64)
- Output current range: up to 1,400 mA
- Fast programming without mains voltage
- Flexible current setting with multivendor LEDset2 interface (plug & play)
- Isolated 0–10V interface for unidirectional telemanagement systems
- Constant lumen function
- Overtemperature protection with external NTC or LEDset2 interface
- Suitable for luminaires of protection classes I and II

OPTOTRONIC® ON/OFF (IP 65)
Constant current





- High efficiency and reliability
- High surge protection: up to 6 kV (protection class I)
- Great flexibility due to wide operating temperature range of -40...55 °C
- High ingress protection (IP 65)
- Fixed output current: 700 mA
- Integrated overtemperature protection

Outdoor lighting dimming
Through dimming of outdoor lighting applications, OSRAM enables significant cost and energy savings for cities while fulfilling the demand for reliable and more attractive light. By offering a variety of dimming options, OSRAM adapts the light to the specific needs of street lighting installations while minimizing energy consumption.

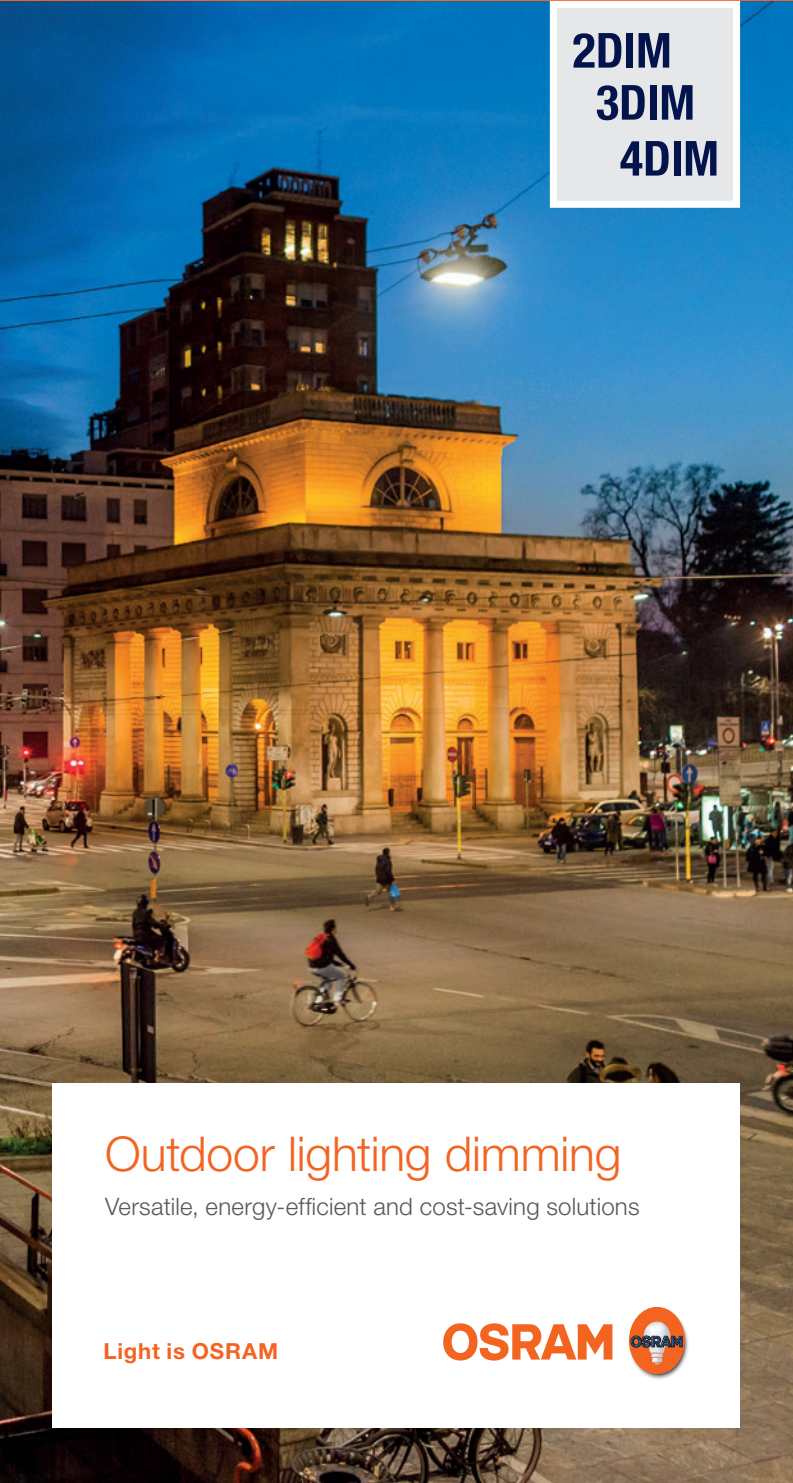
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2DIM
3DIM
4DIM

Outdoor lighting dimming

Versatile, energy-efficient and cost-saving solutions

Light is OSRAM



Outdoor lighting dimming – many possibilities with OPTOTRONIC® LED drivers

Stand-alone control



AstroDIM

AstroDIM provides multi-stage night-time power reduction based on an internal timer referenced to the power on/off time. There is no need for an external control infrastructure. The unit automatically performs a dimming profile based on the predefined scheduled reference to the midpoint, which is calculated based on the power on/off times.



Presence-controlled

In this dimming mode, the light output can be adjusted to the activity around each light point with an additional external sensor powered by the mains, regardless of the actual dimming level of the AstroDIM mode.

Group control



StepDIM

The StepDIM (bi-power) mode allows switching between two output levels, the “normal” mode and the “reduced load” mode, by means of an additional switched phase. In the “reduced load” mode, the driver reduces the lighting level and therefore the energy consumption. The light levels can be preprogrammed flexibly.



MainsDIM

This feature is mainly used in combination with magnetic ballasts for outdoor applications. The light output is reduced by lowering the mains voltage. The reduction of the mains voltage is applied by a controller in the distribution cabinet.

Network control



DALI

In the DALI mode, the driver can be integrated in a light management system such as the OSRAM Street Light Control system. The standardized DALI interface enables bi-directional communication between the driver and the light management system, which means that stepless dimming, status requests and addressing of each individual fixture are possible.



0–10V

With the 0–10V interface, the driver can be integrated in a light management system such as the OSRAM Street Light Control system. This uni-directional interface allows adjusting the light output of the system.

Dimming functionalities per product family

OPTOTRONIC® LED drivers		
	4DIMLT2	2DIMLT2
AstroDIM	x	x
Presence-controlled	x	x + ext. relay
StepDIM	x	x + ext. relay
MainsDIM	x	
DALI	x	
0–10V		x
Constant lumen	x	x
Multivendor LED interface LEDset2	x	x
Tuning factor	x	

Additional cost-saving features



Constant lumen

To ensure the maintenance interval of the system, the light level must be achieved also at the end of the entire lifetime. Due to lumen depreciation of the light source over time, the system usually needs to be overpowered at the beginning which leads to increased energy cost. This is not necessary by means of the constant lumen function as the operating output is adjusted continuously to compensate for the lumen loss.



LEDset2 + tuning factor

LEDset2 is a multivendor LED module interface which ensures optimal efficiency, a high level of reliability and the adaptability of the LED drivers to the latest LED technologies without reprogramming. In case the necessary light level falls between two lumen packages, it can be adjusted by the tuning factor. This allows further energy reduction and prevents unnecessary light pollution.



High overvoltage protection

With the OSRAM developed EQUI connection, these drivers (depending on the OPTOTRONIC® family type) offer a high overvoltage protection up to 8 kV in common mode (6 kV in differential mode) for protection class I or II, protecting not only the LED driver, but also the connected module.

OPTOTRONIC® 4DIMLT2 E (IP 20)					
Product reference	Product number	Output current	Output power	Surge capability	Protection class
OT 40/120-277/1A0 4DIMLT2 E	4052899925182	70–1050 mA	40 W	6/8 kV	I&II
OT 60/170-240/1A0 4DIMLT2 E	4052899925199	70–1050 mA	60 W	6/8 kV	I&II
OT 90/170-240/1A0 4DIMLT2 E	4052899925205	70–1050 mA	90 W	6/8 kV	I&II
OT 165/170-240/1A0 4DIMLT2 E	4052899925212	70–1050 mA	165 W	6/8 kV	I&II

OPTOTRONIC® 2DIMLT2 (IP 64)					
Product reference	Product number	Output current	Output power	Surge capability	Protection class
OT 50/120-277/800 2DIMLT2 P	4052899173781	105–800 mA	50 W	6/6 kV	I&II
OT 50/120-277/1A2 2DIMLT2 P	4052899173804	180–1250 mA	50 W	6/6 kV	I&II
OT 100/120-277/800 2DIMLT2 P	4052899253414	105–800 mA	100 W	6/6 kV	I&II
OT 110/120-277/1A4 2DIMLT2 P	4052899253438	180–1400 mA	110 W	6/6 kV	I&II

OPTOTRONIC® ON/OFF (IP 65)					
Product reference	Product number	Output current	Output power	Surge capability	Protection class
OT 50/120-277/700 P5	4052899259003	700 mA	50 W	6/6 kV	I only
OT 100/120-277/700 P5	4052899259065	700 mA	100 W	6/6 kV	I only
OT 180/120-277/700 P5	4052899259027	700 mA	180 W	6/6 kV	I only
OT 250/120-277/700 P5	4052899259041	700 mA	250 W	6/6 kV	I only



Programming hardware and software		
Product reference	Product number	Product types
DALI magic	4052899039551	For all DALI drivers
OT Programmer	4052899209640	For 2DIMLT2 P drivers
Tuner4TRONIC*		Supports DALI magic, OT Programmer

*Software is available for free download at www.myosram.com for OEMs

Street Light Control		
Product reference	Product number	Interfaces
SLC Luminaire Controller	4052899906907	DALI, 0...10 V
SLC Pole Controller	4052899930315	DALI, 0...10 V
SLC Gateway	4052899072275	GP RS, LAN, fiber optics