

## OT 165/170-240/1A0 4DIMLT2 G2 CE

OPTOTRONIC - 4DIM NFC IP20 | DALI-2, AstroDIM, StepDIM, MainsDIM – constant current LED drivers



### Product family features

- Supply voltage: 220...240 V
- Current output range: 70...1,050 mA
- Easy and fast wireless luminaire programming via NFC
- Flexible current setting with one additional wire (LEDset2)
- AstroDIM for autonomous dimming with five independent levels (astro, time mode)
- Allows for energy saving in twilight phases
- MainsDIM function for dimming via reduction of line voltage amplitude
- Isolated DALI interface for bidirectional telemanagement systems
- Standby power consumption: < 0.35 W
- Constant Lumen Output (CLO)
- Overtemperature protection via external NTC
- Integrated customizable thermal management (Driver Guard)

### Product family benefits

- 4DIM functionality in one device (StepDIM, AstroDIM, MainsDIM, DALI)
- DALI-2 certified incl. Parts 251, 252, 253
- Easy and fast wireless luminaire programming
- Very high efficiency
- Wide current output range: 200 mA...1050 mA
- High surge protection: up to 10 kV (in protection class I or II)
- Great flexibility due to wide operating temperature range of -40...55 °C or 60 °C
- Protection through double isolation between mains input and LED output



Specifications are subject to changes without notice.

[www.inventronicsglobal.com](http://www.inventronicsglobal.com)

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### Areas of application

- Street and urban lighting
- Industry
- Suitable for outdoor applications in luminaires with IP > 54
- Suitable for use in outdoor luminaires of protection class I and II

## Technical data

### Electrical data

Nominal input voltage	220...240 V
Mains frequency	0/50/60 Hz <sup>1)</sup>
Input voltage AC	170...264 V
Input voltage DC	176...276 V <sup>1)</sup>
Total harmonic distortion	< 5 % <sup>2)</sup>
Power factor $\lambda$	0.85C...0.99 <sup>3)</sup>
Efficiency in full-load	93.5 % <sup>4)</sup>
Device power loss	11.5 W
Protective conductor current	< 0.35 mA
Inrush current	77 A <sup>5)</sup>
Max. ECG no. on circuit breaker 10 A (B)	5
Max. ECG no. on circuit breaker 16 A (B)	9
Surge capability (L/N-Ground)	10 kV
Surge capability (L-N)	6 kV
Nominal output voltage	130...260 V
U-OUT (working voltage)	300 V
Nominal output current	200...1050 mA
Default output current	700 mA
Output current tolerance	$\pm 3$ % <sup>6)</sup>
Output current LEDset open	70 mA
Output current LEDset shorted	Not allowed
Output ripple current (100 Hz)	< 5 %
Nominal output power	165 W <sup>7)</sup>
Maximum output power	165 W
Galvanic isolation	Double

1) Additional fuse needed in DC operation

2) At full power

3) Full load

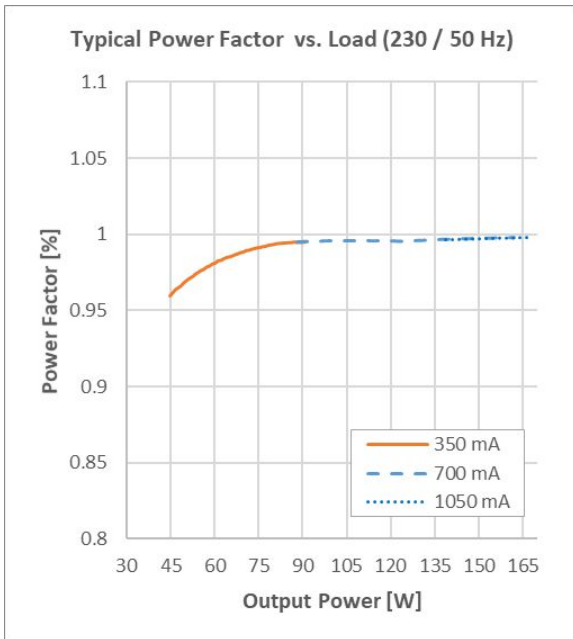
4) at 230 V, 50 Hz

5) At 180  $\mu$ s

6) +/- 5% for LEDset down to 300mA

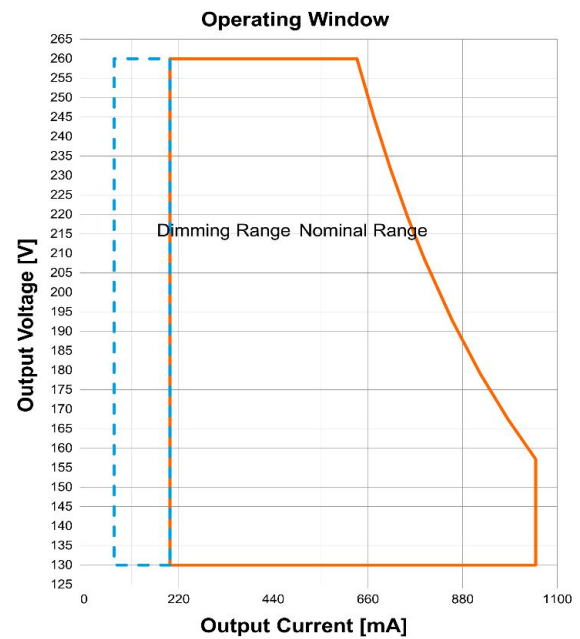
7) Max. 75% in DC operating mode

## Typical Power Factor v Load



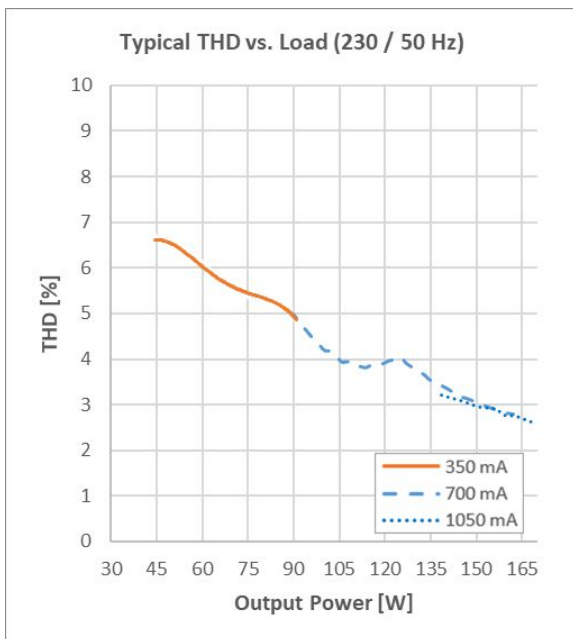
OT 165 4DIMLT2 G2 Typical Power Factor vs Load

## Operating Window



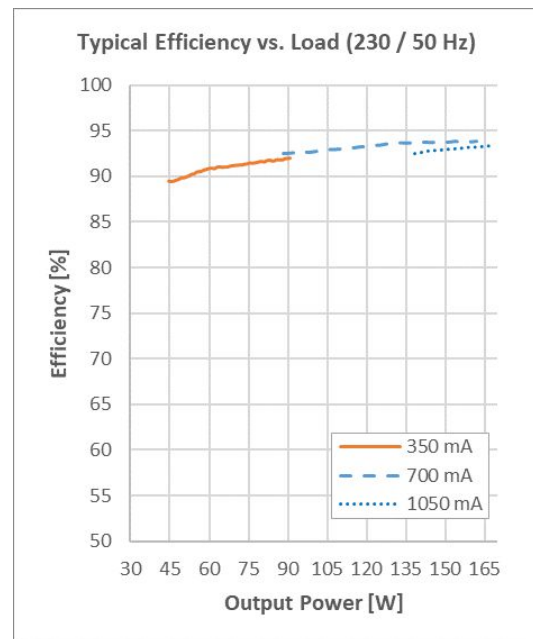
OT 165 4DIMLT2 G2 Operating Window

## Typical THD v Load



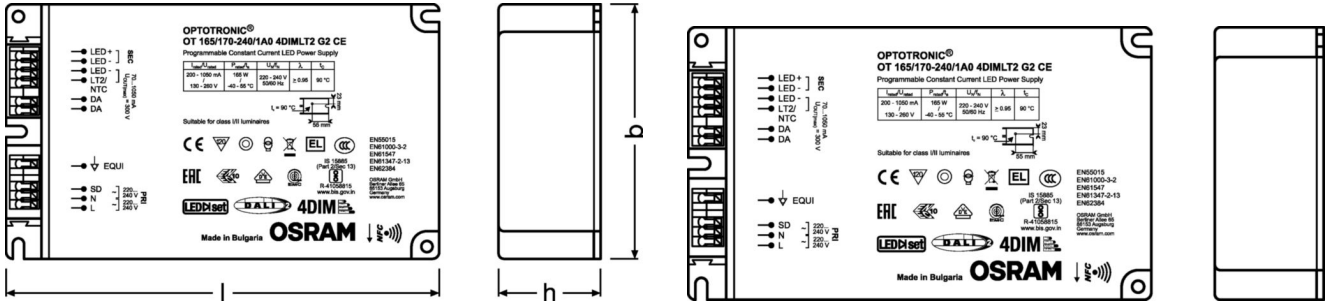
OT 165 4DIMLT2 G2 Typical THD vs Load

## Typical Efficiency v Load 230 V 50 Hz



OT 165 4DIMLT2 G2 Typical Efficiency vs Load

## Dimensions & weight



Length	170.0 mm
Width	100.0 mm
Height	40.0 mm
Mounting hole spacing, length	160.0 mm
Mounting hole spacing, width	90.0 mm
Cable cross-section, input side	0.2... 1.5 mm <sup>2</sup>
Cable cross-section, output side	0.2... 1.5 mm <sup>2</sup>
Wire preparation length, input side	8.5...9.5 mm
Product weight	980.00 g

## Colors & materials

Casing material	Plastic
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## Temperatures & operating conditions

Ambient temperature range	-40...+55 °C
Maximum temperature at tc test point	90 °C
Max.housing temperature in case of fault	110 °C
Temperature range at storage	-40...+85 °C
Permitted rel. humidity during operation	5...95 % <sup>1)</sup>

1) The luminaire manufacturer must ensure that condensation water cannot be created within the fixture.

## Expected Lifetime

Product name				
OT 165/170-240/1A0 4DIMLT2 G2 CE	ECG ambient temperature [ta]	55	45	43
	Temperature at tc-point [°C]	90	80	78
	Lifetime [h]	50000	85000	100000

## Lifespan

<b>ECG lifetime</b>	50000 h / 100000 h <sup>1)</sup>
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1) At maximum  $T_c = 90^\circ\text{C}$  / 10% failure rate / At  $T_c = 78^\circ\text{C}$  / 10% failure rate

## Additional product data

<b>Predecessor EAN</b>	4052899925212
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## Capabilities

<b>Dimmable</b>	Yes
<b>Dimming interface</b>	4DIM / AstroDIM / DALI / MainsDIM / StepDIM
<b>Dimming range</b>	10...100 %
<b>DALI-2 Diagnostic Data</b>	Yes <sup>1)</sup>
<b>DALI-2 Energy Data</b>	Yes <sup>2)</sup>
<b>Constant lumen function</b>	Programmable
<b>LEDset</b>	Yes
<b>Max. cable length to lamp/LED module</b>	2.0 m <sup>3)</sup>
<b>Suitable for fixtures with prot. class</b>	I / II
<b>Suitable for emergency lighting</b>	Yes
<b>Type of connection, input side</b>	Push terminal
<b>Type of connection, output side</b>	Push terminal
<b>Number of channels</b>	1
<b>Overheating protection</b>	Automatic reversible
<b>Overload protection</b>	Automatic reversible
<b>Short-circuit protection</b>	Automatic reversible
<b>Intended for no-load operation</b>	No
<b>No-load proof</b>	Yes

1) Acc. DALI part 253

2) Acc. DALI part 252

3) Output wires must be routed as close as possible to each other

## Programming

Programming device	DALI / NFC
Tuner4TRONIC	Yes
Tuner4TRONIC Field App	Yes

## Programmable features

Emergency Mode	Yes
DALI-2 Luminaire Data	Yes <sup>1)</sup>
Configuration Lock	Yes
AstroDIM	Yes
StepDIM	Yes
MainsDIM	Yes
Driver Guard	Yes
Thermal Protection	Yes

1) Acc. DALI part 251

## Certificates & standards

Approval marks – approval	BIS / CCC / CE / DALI-2 / EL / ENEC / VDE / VDE-EMC
Standards	Acc. to EN 61347-1 / Acc. to EN 61347-2-13 / Acc. to EN 62384 / Acc. to EN 55015:2006 + A1:2007 + A2:2009 / Acc. to EN 61547 / Acc. to FCC 47 part 15 class B / Acc. to IEC 61000-3-2 / Acc. to IEC 61000-3-3 / Acc. to IEC 62386-101 / Acc. to IEC 62386-102 / Acc. to IEC 62386-207 / UL-8750
Type of protection	IP20
Protection class	1+2

## Logistical data

Commodity code	85044083900
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## Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)	
Date of Declaration	04-06-2024
Primary Article Identifier	4062172053952   8010703816770   4055462326874
Declaration No. in SCIP database	In work

### Additional product information

- The luminaire manufacturer must ensure that condensation water cannot be created within the fixture and, in particular, cannot affect the functionality of the product. Failing to comply with this requirement will make invalid any warranty claim.



## Download Data

File		
Certificates	PDF	▶ OT VDE ENEC 40050684 290923
Certificates	PDF	▶ OT 165 4DIM G2 CE BIS 34496 170420
Certificates	PDF	▶ OT 165 4DIM LT2 G2 EATON AM27702 210520
Certificates	PDF	▶ OT 165 4DIM LT2 G2 INOTEC AM27702 210520
CAD data 3-dim	Compressed	▶ OT 165 4DIMLT2G2CE CAD3PDF 060820
CAD data 2-dim	Compressed	▶ OT 165 4DIMLT2G2CE CAD2PDF 060820
CAD data	Compressed	▶ OT 165 4DIMLT2G2CE IGS 060820
CAD data	Compressed	▶ OT 165 4DIMLT2G2CE STEP 060820
Mandatory Publications	PDF	▶ OT 4DIMLT2 G2 CE 3813028 100921
Mandatory Publications	PDF	▶ OT 165 4DIMLT2 G2 CE UK DoC 4310787 010621
User instruction	PDF	▶ OPTOTRONIC Outdoor

## Ecodesign regulation information:

Intended for use with LED modules.

The forward voltage of the LED light source shall be within the defined operating window of the control gear in all operating conditions including dimming if applicable.

Separate control gear and light sources must be disposed of at certified disposal companies in accordance with Directive 2012/19/EU (WEEE) in the EU and with Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 in the UK. For this purpose, collection points for recycling centres and take-back systems (CRSO) are available from retailers or private disposal companies, which accept separate control gear and light sources free of charge. In this way, raw materials are conserved and materials are recycled.

## Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4062172053952	OT 165/170-240/1A0 4DIMLT2 G2 CE	Shipping carton box 10 Pieces	395 x 148 x 248 mm	14.50 dm <sup>3</sup>	736.00 g

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit

## Data privacy

This OSRAM driver can be configured using the Tuner4TRONIC software. This requires registering on [www.myosram.com](http://www.myosram.com) and downloading the Tuner4TRONIC software from the Internet. The Tuner4TRONIC software enables users to access and view the operational data of a luminaire or driver via the corresponding programming interfaces. A password key (Config Lock) must be set up in the driver via the Tuner4TRONIC software in order to control which users can access and view operational data. Follow the instructions for password setup. To grant an external person or company rights to access or view operational data, you can assign password keys. In this case, however, you are responsible for ensuring that the third party concerned takes notice of the information described here.

However, OSRAM can read out operating data from devices for maintenance and service purposes even when a password key has been assigned. In individual cases, OSRAM will also use its access rights in order to optimize or improve driver hardware and driver functions. In accordance with data privacy principles, any user of operating data (luminaire manufacturers, third parties with access rights) must ensure that personal data (e.g. name, address, location IDs) are only merged with the prior written consent of the person (end user) concerned. The respective user of the operating data is responsible for providing evidence of consent.

## Accessories Optional

Product description	Accessory name	Accessory code
OT 165/170-240/1A0 4DIMLT2 G2 CE	DALI magic	▶ 4062172379328
OT 165/170-240/1A0 4DIMLT2 G2 CE	DALI magic	▶ 6977078996907
OT 165/170-240/1A0 4DIMLT2 G2 CE	PRH101 -USB	▶ 6977078996938
OT 165/170-240/1A0 4DIMLT2 G2 CE	CPR30 -USB	▶ 6977078996945
OT 165/170-240/1A0 4DIMLT2 G2 CE	NFC Scanner by TERTIUM Technology	▶ 4055462203571
OT 165/170-240/1A0 4DIMLT2 G2 CE	NFC Scanner by TERTIUM Technology	▶ 4055462290281

## Disclaimer

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.