The trusted value of OSRAM Digital Systems continues with Inventronics Global – where experience meets innovation.

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.

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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

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Technical data

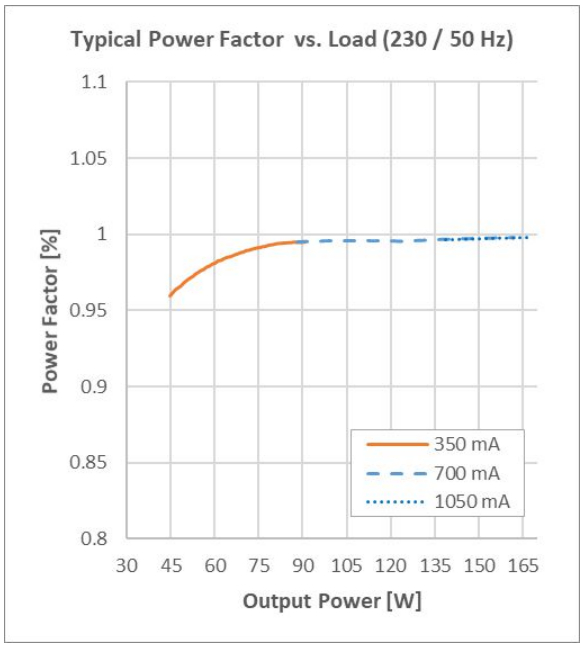
Electrical data

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

1) Additional fuse needed in DC operation
2) At full power
3) Full load
4) at 230 V, 50 Hz
5) At 180 µs
6) +/- 5% for LEDset down to 300mA
7) Max. 75% in DC operating mode

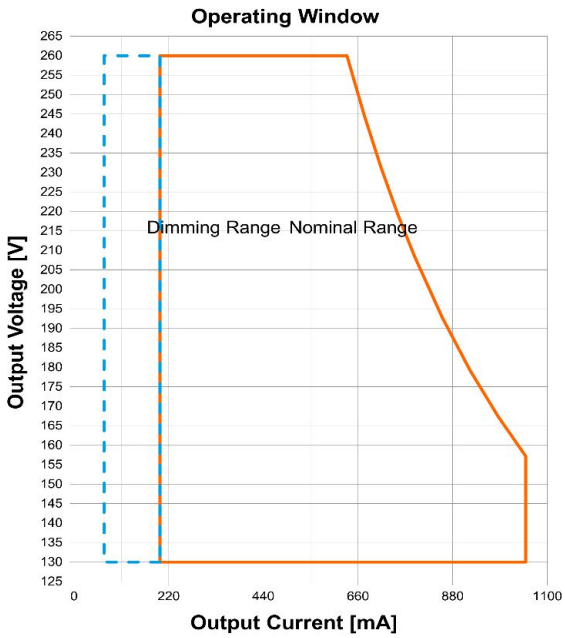
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Typical Power Factor v Load



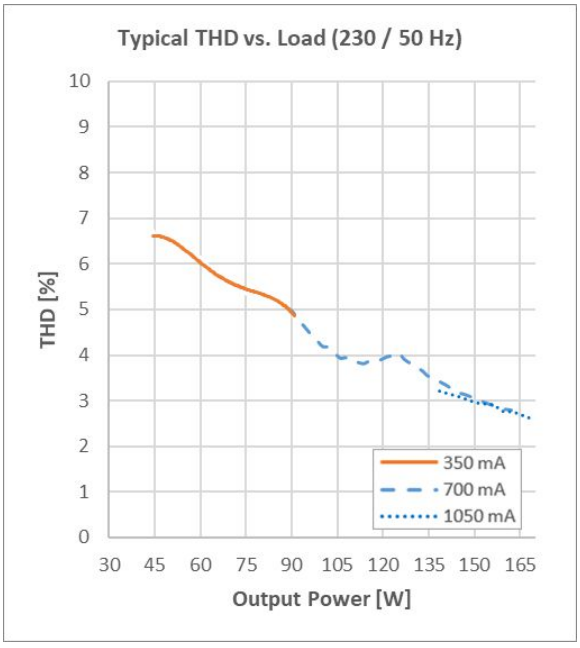
OT 165 4DIMLT2 G2 Typical Power Factor vs Load

Operating Window



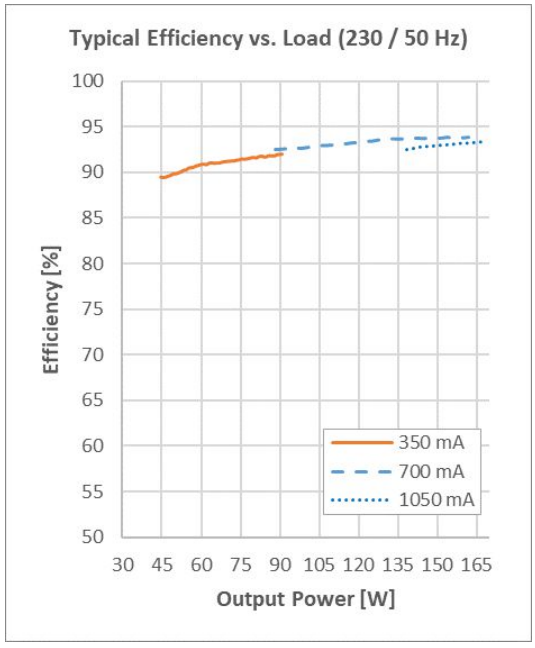
OT 165 4DIMLT2 G2 Operating Window

Typical THD v Load



OT 165 4DIMLT2 G2 Typical THD vs Load

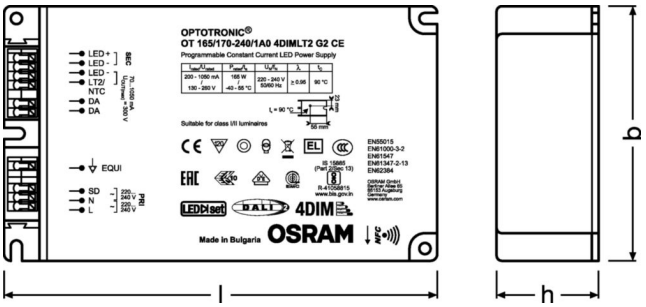
Typical Efficiency v Load 230 V 50 Hz



OT 165 4DIMLT2 G2 Typical Efficiency vs Load

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Dimensions & weight



Product weight	980.00 g
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 mm²
Cable cross-section, output side	0.2…1.5 mm²
Wire preparation length, input side	8.5…9.5 mm

Colors & materials

Casing material	Plastic

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 % [1)]

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

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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

ECG lifetime	50000 h / 100000 h [1)]

1) At maximum T_c = 90°C / 10% failure rate / At Tc = 78°C / 10% failure rate

Capabilities

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

1) Acc. DALI part 253
2) Acc. DALI part 252
3) Output wires must be routed as close as possible to each other

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Programming

Programming device	DALI / NFC
Tuner4TRONIC	Yes
Tuner4TRONIC Field App	Yes

Programmable features

DALI-2 Luminaire Data	Yes [1)]
Configuration Lock	Yes
AstroDIM	Yes
StepDIM	Yes
MainsDIM	Yes
Driver Guard	Yes
Thermal Protection	Yes
Emergency Mode	Yes

1) Acc. DALI part 251

Certificates & standards

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

Logistical data

Commodity code	85044083900

Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACh)	
Date of Declaration	26-02-2025
Primary Article Identifier	4062172053952 | 8010703816770 | 4055462326874
Declaration No. in SCIP database	In work
SCIP_STATUS	In work
SCIP_ID	

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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.

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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.

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Download Data

File		
Certificates	PDF	►OT VDE ENEC 40050684 290125
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 1DIMLT2 G1 4DIMLT2 G2 CE 3806542 06 180225
User instruction	PDF	►OPTOTRONIC Outdoor

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Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4062172053952 OSRAM	OT 165/170-240/1A0 4DIMLT2 G2 CE	Shipping carton box 10 Pieces	395 x 148 x 248 mm	14.50 dm³	1053.60 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 Inventronics driver can be configured using the Tuner4TRONIC software. This requires registering on www.inventronicsglobal.com/ds and downloading theTuner4TRONIC 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, Inventronics can read out operating data from devices for maintenance and service purposes even when a password key has been assigned. In individual cases, Inventronics 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	▸6977078996907
OT 165/170-240/1A0 4DIMLT2 G2 CE	DALI magic	▸4008321582768
OT 165/170-240/1A0 4DIMLT2 G2 CE	DALI magic	▸6977078997416
OT 165/170-240/1A0 4DIMLT2 G2 CE	PRH101 -USB	▸6977078996938
OT 165/170-240/1A0 4DIMLT2 G2 CE	PRH101 -USB	▸6937186112354
OT 165/170-240/1A0 4DIMLT2 G2 CE	CPR30+	▸6977078996945
OT 165/170-240/1A0 4DIMLT2 G2 CE	CPR30+	▸6937186112378
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
OT 165/170-240/1A0 4DIMLT2 G2 CE	NFC Scanner by TERTIUM Technology	▸6937186114891

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