

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

OT 20/170-240/1A0 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

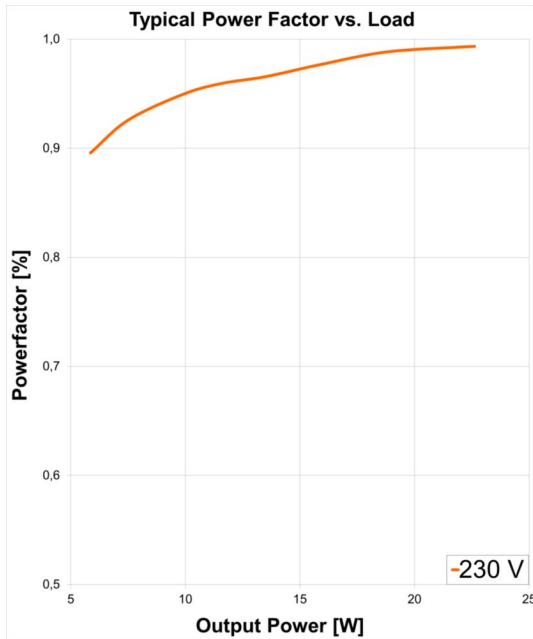
Technical data

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	< 10 % ²⁾
Power factor λ	0.57C...0.99 ³⁾
Efficiency in full-load	87 % ⁴⁾
Device power loss	3.5 W
Inrush current	25 A ⁵⁾
Max. ECG no. on circuit breaker 10 A (B)	22
Max. ECG no. on circuit breaker 16 A (B)	35
Surge capability (L-N)	6 kV
Surge capability (L/N-Ground)	10 kV
Nominal output voltage	10...38 V
U-OUT (working voltage)	60 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 PSTLM	≤ 1
Output SVM	≤ 0.4
Output current LEDset open	70 mA
Output current LEDset shorted	Not allowed
Nominal output power	22 W ⁷⁾
Maximum output power	22 W

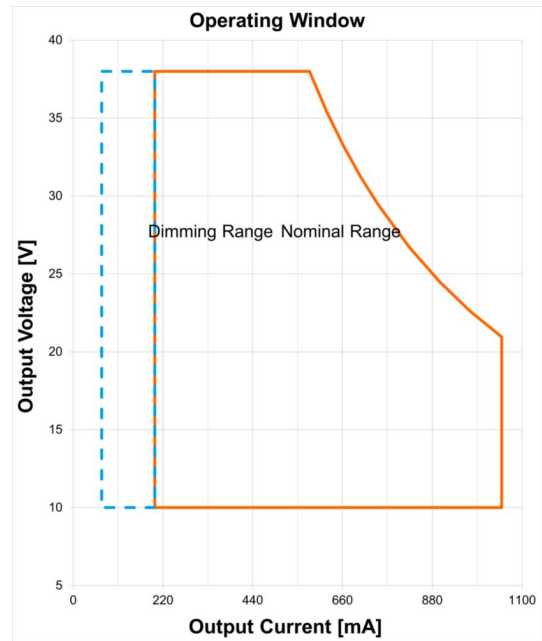
- 1) Additional fuse needed in DC operation
- 2) At full power
- 3) Full load
- 4) at 230 V, 50 Hz
- 5) At 150 μ s
- 6) +/- 5% for LEDset down to 300mA
- 7) Max. 75% in DC operating mode

Typical Power Factor v Load



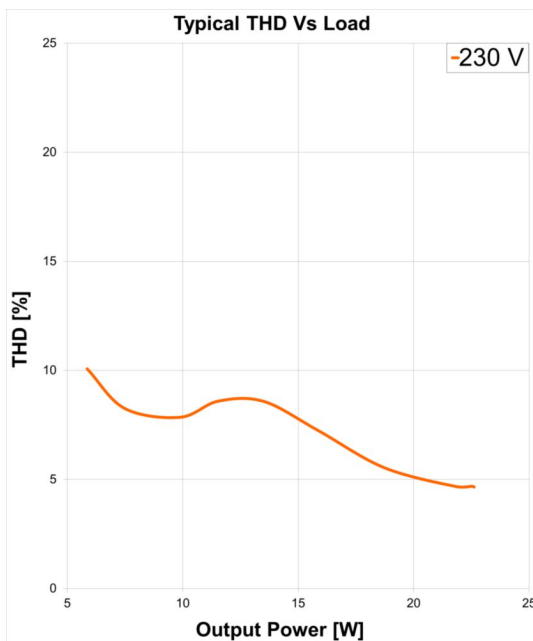
OT 20/170-240/1A0 4DIMLT2 G2 CE Typical Power Factor vs. Load

Operating Window



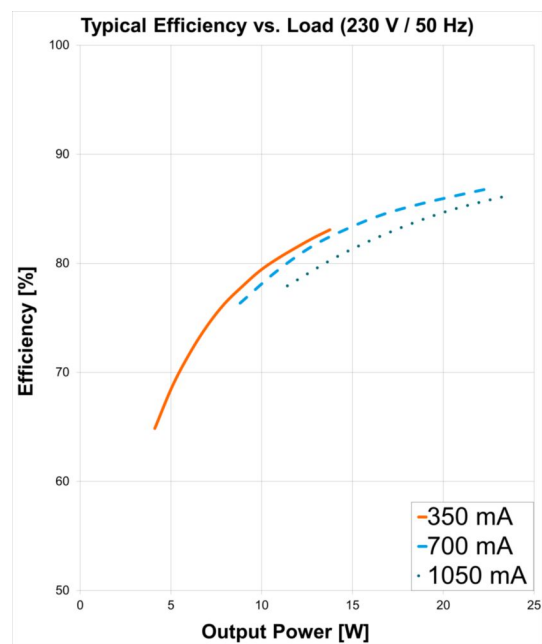
OT 20/170-240/1A0 4DIMLT2 G2 CE Operating Window

Typical THD v Load



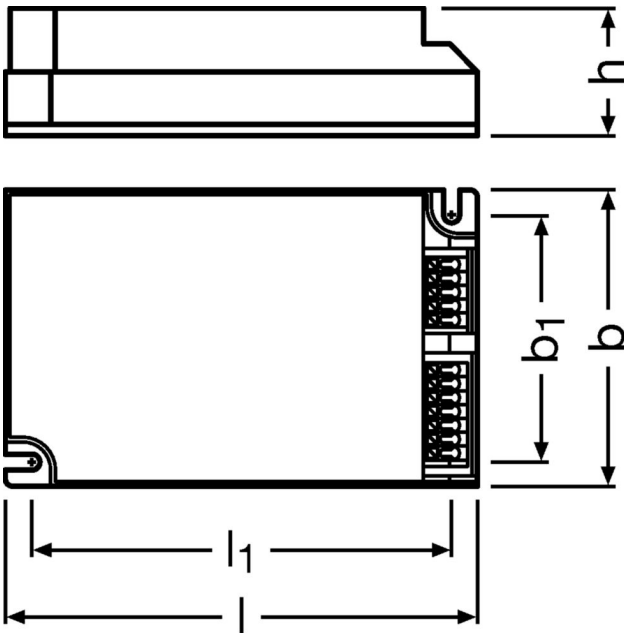
OT 20/170-240/1A0 4DIMLT2 G2 CE Typical THD Vs Load

Typical Efficiency v Load 230 V 50 Hz



OT 20/170-240/1A0 4DIMLT2 G2 CE Typical Efficiency vs. Load (230 V 50 Hz)

Dimensions & weight



Product weight	210.00 g
Length	123.0 mm
Width	79.0 mm
Height	33.0 mm
Mounting hole spacing, length	111.0 mm
Mounting hole spacing, width	67.0 mm
Cable cross-section, input side	0.2...1.5 mm ²
Cable cross-section, output side	0.2...1.5 mm ²
Wire preparation length, input side	8.5...9.5 mm

Colors & materials

Casing material	Plastic
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Temperatures & operating conditions

Ambient temperature range	-40...+60 °C
Maximum temperature at tc test point	75 °C
Max.housing temperature in case of fault	120 °C
Temperature range at storage	-25...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.

Expected Lifetime

Product name				
OT 20/170-240/1A0 4DIMLT2 G2 CE	ECG ambient temperature [ta]	60	50	48
	Temperature at tc-point [°C]	75	65	63
	Lifetime [h]	50000	85000	100000

Lifespan

ECG lifetime	50000 h / 100000 h ¹⁾
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1) At maximum $T_c = 75^\circ\text{C}$ / 10% failure rate / At $T_c = 63^\circ\text{C}$ / 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
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

Programming

Programming device	DALI / NFC
Tuner4TRONIC	Yes
Tuner4TRONIC Field App	Yes
Box programming	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	CCC / CE / DALI-2 / EL / ENEC / RCM / 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
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Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)	
Date of Declaration	19-02-2025
Primary Article Identifier	4052899981928 4050732430770
Declaration No. in SCIP database	In work
SCIP_STATUS	In work
SCIP_ID	

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.

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 290125
Certificates	PDF	▶ OT 20 4DIM LT2 G2 EATON AM35336 210520
Certificates	PDF	▶ OT 20 4DIM LT2 G2 INOTEC AM35336 210520
Certificates	PDF	▶ EATON(CEAG)-Conformity declaration AM04626_OT20_170-240_1A0_4DIMLT2_G2_CE
Certificates	PDF	▶ INOTEC- Conformity declaration AM04626_OT20_170-240_1A0_4DIMLT2_G2_CE
Certificates	PDF	▶ EATON(CEAG) Conformity declaration Appendix (DE)
Certificates	PDF	▶ INOTEC-Conformity declaration Appendix (DE)
CAD data 3-dim	Compressed	▶ OT 20 4DIMLT2G2CE CAD3PDF 060820
Brochures	PDF	▶ 4 DIM NFC G3 CE LED drivers and T4T C (EN)
CAD data 2-dim	Compressed	▶ OT 20 4DIMLT2G2CE CAD2PDF 060820
CAD data	Compressed	▶ CAD data STEP OT 20/170-240/1A0 4DIMLT2 G2 CE
CAD data	Compressed	▶ OT 20 4DIMLT2G2CE IGS 060820
CAD data	Compressed	▶ OT 20 4DIMLT2G2CE STEP 060820
Mandatory Publications	PDF	▶ OT 1DIMLT2 G1 4DIMLT2 G2 CE 3806542 06 180225
User instruction	PDF	▶ OPTOTRONIC Outdoor

ISOLATION	Input/Mains	EQUI	DALI	LEDset	LED Output	Case	AUX	LSI	NTC
Input/Mains	-	Double	Basic	SELV	SELV	Double			SELV
EQUI	Double	-	Double	Basic	Basic	Basic			Double
DALI	Basic	Double	-	Double	Double	Double			Double
LEDset	SELV	Basic	Double	-		Basic			
LED Output	SELV	Basic	Double		-	Basic			
Case	Double	Basic	Double	Basic	Basic	-			Basic
AUX							-		
LSI								-	
NTC	SELV	Double	Double			Basic			-

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4052899981928	OT 20/170-240/1A0 4DIMLT2 G2 CE	Shipping carton box 20 Pieces	400 x 277 x 119 mm	13.19 dm ³	232.75 g
4052899981928	OT 20/170-240/1A0 4DIMLT2 G2 CE	Shipping carton box 10 Pieces	280 x 175 x 102 mm	5.00 dm ³	227.90 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 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, 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 20/170-240/1A0 4DIMLT2 G2 CE	DALI magic	▶ 6977078996907
OT 20/170-240/1A0 4DIMLT2 G2 CE	DALI magic	▶ 4008321582768
OT 20/170-240/1A0 4DIMLT2 G2 CE	DALI magic	▶ 6977078997416
OT 20/170-240/1A0 4DIMLT2 G2 CE	PRH101 -USB	▶ 6977078996938
OT 20/170-240/1A0 4DIMLT2 G2 CE	PRH101 -USB	▶ 6937186112354
OT 20/170-240/1A0 4DIMLT2 G2 CE	CPR30 -USB	▶ 6977078996945
OT 20/170-240/1A0 4DIMLT2 G2 CE	CPR30 -USB	▶ 6937186112378
OT 20/170-240/1A0 4DIMLT2 G2 CE	NFC Scanner by TERTIUM Technology	▶ 4055462203571
OT 20/170-240/1A0 4DIMLT2 G2 CE	NFC Scanner by TERTIUM Technology	▶ 4055462290281
OT 20/170-240/1A0 4DIMLT2 G2 CE	NFC Scanner by TERTIUM Technology	▶ 6937186114891

Disclaimer

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