

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

OTi DALI 50/220-240/1A4 NFC TW (PHASE OUT)

OPTOTRONIC Intelligent – DALI NFC TW | Compact constant current LED driver – Dimmable



Product family features

- Line frequency: 0 Hz | 50 Hz | 60 Hz
- Supply voltage: 220...240 V
- Usable as DT6 (2-channel) or DT8 (Tunable White) driver
- Constant Lumen Output (CLO)
- Integrated customizable thermal management (Driver Guard)
- SELV driver

Product family benefits

- Control of standard white or Tunable White light acc. DALI device type 8 (DT8)
- TouchDIM® Tunable White integrated for use without additional LMS
- Fully programmable via T4T software (NFC, DALI Interface)
- Lifetime: up to 100,000 h (temperature at $T_c = 65^\circ\text{C}$, max. 10 % failure rate)
- High-quality dimming of 1...100 % by amplitude dimming
- High quality of light thanks to <1% output ripple current
- Fulfill safety requirement due to overload, overtemperature, Hot Plug protection



Areas of application

- Classrooms
- Conference rooms
- Daylight simulation for windowless rooms
- For Tunable White as well as for 2-channel use (e.g. direct/indirect lighting)
- Healthcare and hospitality with HCL functionality
- Independent mounting via Cable Clamp Kit possible
- Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
- Office with high end HCL functionality
- Suitable for indoor and outdoor SELV installations

Technical data

Electrical data

Nominal input voltage	220...240 V
Mains frequency	0/50/60 Hz
Input voltage AC	198...264 V ¹⁾
Input voltage DC	176...276 V
Nominal input current at 230 V	0.27 A
Total harmonic distortion	< 20 % ²⁾
Power factor λ	0.83C...0.97
Efficiency in full-load	90 % ³⁾
Networked standby power	<0.25 W ³⁾
Inrush current	27 A ⁴⁾
Max. ECG no. on circuit breaker 10 A (B)	14
Max. ECG no. on circuit breaker 16 A (B)	23
Surge capability (L-N)	1 kV
Surge capability (L/N-Ground)	2 kV
Nominal output voltage	15...54 V ⁵⁾
U-OUT (working voltage)	60 V
Nominal output current	600...1400 mA ⁶⁾
Minimum output current	6 mA
Default output current	600 mA
Output current tolerance	±3 %
Output ripple current (100 Hz)	< 1 % ⁷⁾
Output PSTLM	<1
Output SVM	<0.4
Nominal output power	9...55 W ⁸⁾
Maximum output power	55 W
Galvanic isolation primary/secondary	SELV
Galvanic isolation DALI/mains	Basic
Galvanic isolation DALI/output	SELV

1) Permitted voltage range

2) At full load, 220...240 V, 50 Hz / see graphs

3) at 230 V, 50 Hz

4) $t_{width} = 205 \mu s$ (measured at 50 % I_{peak})

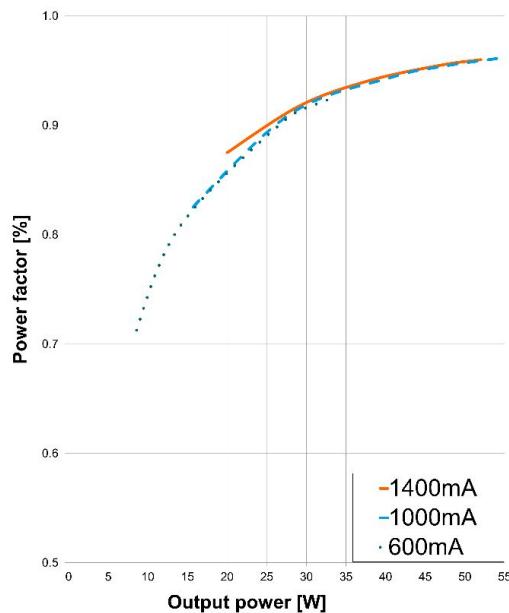
5) Maximum 60 V

6) not relevant

7) Ripple average at 100 Hz

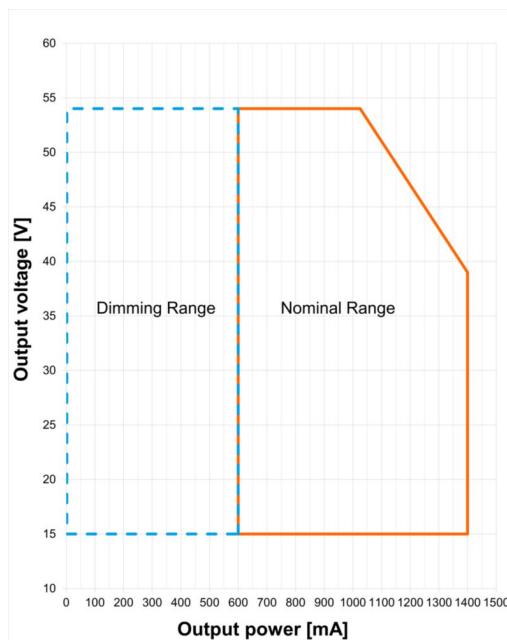
8) Partial load 9...55 W

Typical Power Factor v Load



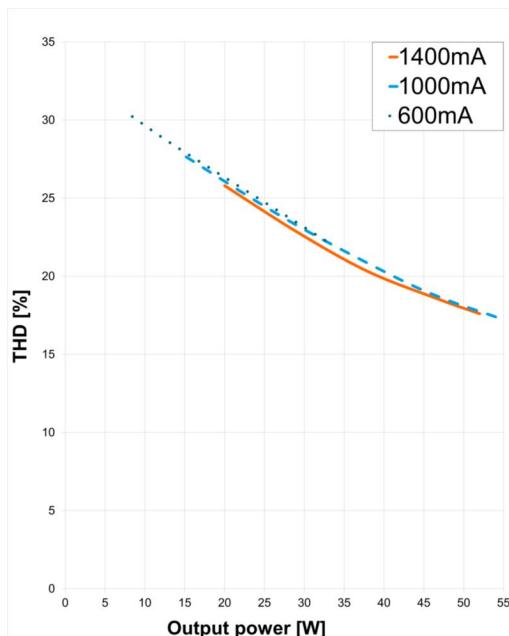
OTI DALI 50 NFC TW Typical Power Factor vs. Load

Operating Window



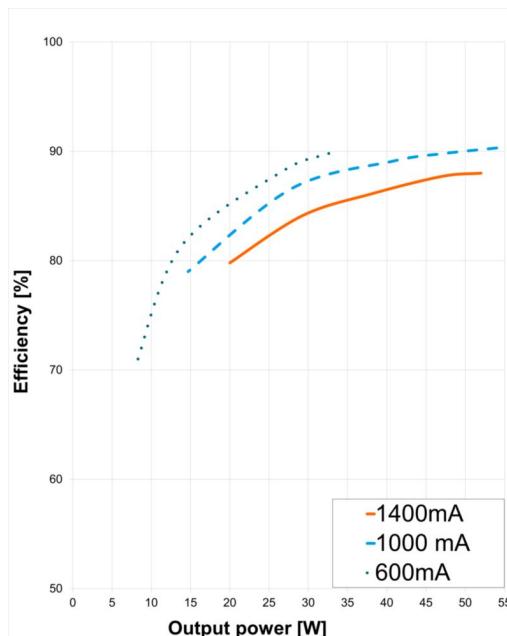
OTI DALI 50 NFC TW Operating window

Typical THD v Load



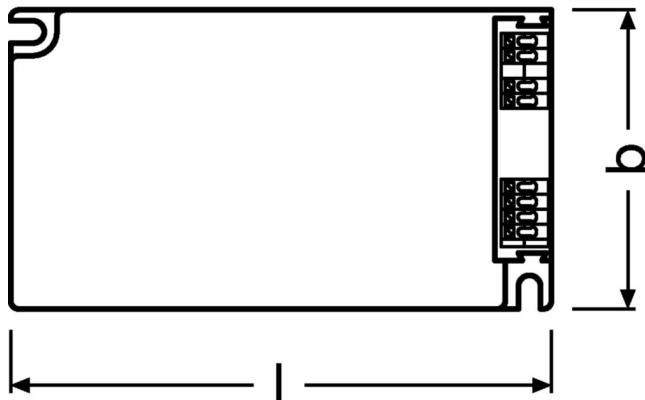
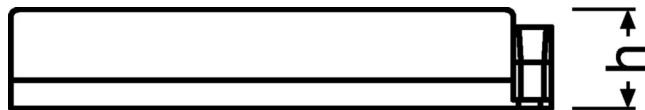
OTI DALI 50 NFC TW Typical THD Vs Load

Typical Efficiency v Load 230 V 50 Hz



OTI DALI 50 NFC TW Typical Efficiency vs. Load (230 V / 50 Hz)

Dimensions & weight



Product weight	220.00 g
Length	135.0 mm
Width	75.0 mm
Height	25.0 mm
Mounting hole spacing, length	124.0 mm
Mounting hole spacing, width	64.0 mm
Cable cross-section, input side	0.5...1.5 mm ² ¹⁾
Cable cross-section, output side	0.5...1.5 mm ² ¹⁾
Wire preparation length, input side	8.0...9.0 mm
Wire preparation length, output side	8.0...9.0 mm
Cable/wire length, output side	2000 mm

1) Solid or flexible leads

Colors & materials

Casing material	Plastic
Product color	White

Temperatures & operating conditions

Ambient temperature range	-25...+50 °C
Maximum temperature at tc test point	75 °C ¹⁾
Max.housing temperature in case of fault	110 °C
Temperature range at storage	-40...+85 °C
Permitted rel. humidity during operation	5...85 % ²⁾

1) Maximum at the Tc-point

2) Maximum 56 days/year at 85 %

Lifespan

ECG lifetime	50000 h / 100000 h ¹⁾
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1) $T_c = 75^\circ\text{C}$, 0.2% / 1,000 h failure rate / $T_c = 65^\circ\text{C}$, 0.1% / 1,000 h failure rate

Additional product data

Encapsulated	No
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Capabilities

Programming interface	DALI, NFC
Control interface	DALI-2, Touch DIM, Corridor
Dimmable	Yes
Dimming interface	DALI-2 / Touch DIM / Corridor
Dimming range	1...100 %
Dimming method	Amplitude Modulation
DALI-2 Diagnostic Data	Yes ¹⁾
DALI-2 Energy Data	Yes ²⁾
Constant lumen function	Programmable
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
Suitable for through-wiring	Yes with optional cable clamp
Number of channels	2 ⁴⁾
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

4) Default operation mode: tunable white DT8; optional operation mode: 2-channel DT6

Programming

Programming device	DALI / NFC
Tuner4TRONIC	Yes
Tuner4TRONIC Field App	No
Box programming	Yes

Programmable features

DALI Settings	Yes
DALI-2 Luminaire Data	Yes ¹⁾
TouchDIM + Sensor	Yes
Corridor Functionality	Yes
Dim to Dark	Yes
Soft Switch Off	Yes
Tuning Factor	Yes
Configuration Lock	Yes
Driver Guard	Yes
Emergency Mode	Yes

1) Acc. DALI part 251

Certificates & standards

Approval marks – approval	CE / UKCA / ENEC / EAC / DALI-2 / EL
Standards	IEC 61347-1 / IEC 61347-2-13 / IEC 62384 / EN 55015 / IEC 62386 / IEC 61000-3-2 / IEC 61000-3-3 / IEC 61547 / CISPR 15 / ETSI EN 300 330 / ETSI EN 301 489 - 1 / ETSI EN 301 489-3
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	30-05-2025
Primary Article Identifier	4062172123525 4050732497315 6937186150165
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

- Electrical connections between the two output channels are not allowed.

Download Data

File		
Certificates	PDF	► OT ENEC 40038447 270224
CAD data 3-dim	Compressed	► OTI DALI 50 NFC TW CAD3PDF 111220
CAD data 2-dim	Compressed	► OTI DALI 50 NFC TW CAD2PDF 111220
CAD data	Compressed	► OTI DALI 50 NFC TW IGS 111220
CAD data	Compressed	► OTI DALI 50 NFC TW STEP 111220
Mandatory Publications	PDF	► OTi DALI NFC TW CE 4274927 05 040225
Mandatory Publications	PDF	► OTi DALI NFC TW UK DoC 4281062 040923
User instruction	PDF	► OPTOTRONIC LED Power Supply
User instruction	PDF	► OPTOTRONIC LED Power Supply

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4062172123525 OSRAM	OTi DALI 50/220-240/1A4 NFC TW	Shipping carton box 20 Pieces	303 x 262 x 98 mm	7.78 dm ³	234.25 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
OTi DALI 50/220-240/1A4 NFC TW	OT CABLE CLAMP A-STYLE	► 4052899089570
OTi DALI 50/220-240/1A4 NFC TW	OT CABLE CLAMP A-STYLE	► 4050732499425
OTi DALI 50/220-240/1A4 NFC TW	OT CABLE CLAMP A-STYLE	► 6977770432048
OTi DALI 50/220-240/1A4 NFC TW	OT CABLE CLAMP A-STYLE TL	► 4052899325982
OTi DALI 50/220-240/1A4 NFC TW	OT CABLE CLAMP A-STYLE TL	► 6977770432062
OTi DALI 50/220-240/1A4 NFC TW	PRH101 -USB	► 6977078996938
OTi DALI 50/220-240/1A4 NFC TW	PRH101 -USB	► 6937186112354
OTi DALI 50/220-240/1A4 NFC TW	CPR30 -USB	► 6977078996945
OTi DALI 50/220-240/1A4 NFC TW	CPR30 -USB	► 6937186112378

Disclaimer

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