

## OTi DALI 50/220-240/1A4 NFC TW

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

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

1) not relevant

2) Partial load 9...55 W

3) Maximum 60 V

4) Permitted voltage range

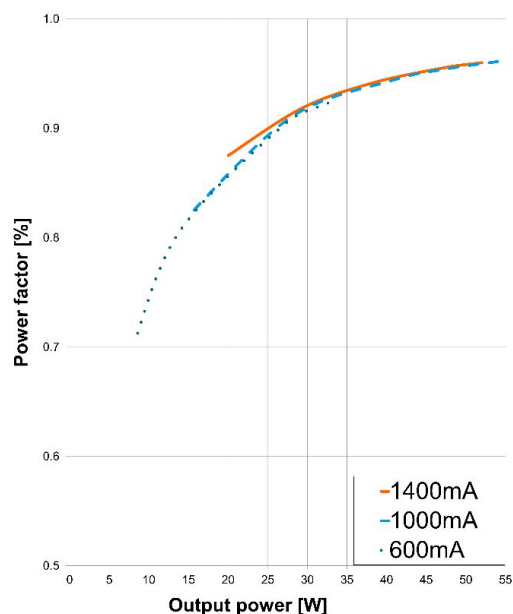
5) at 230 V, 50 Hz

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

7) Ripple average at 100 Hz

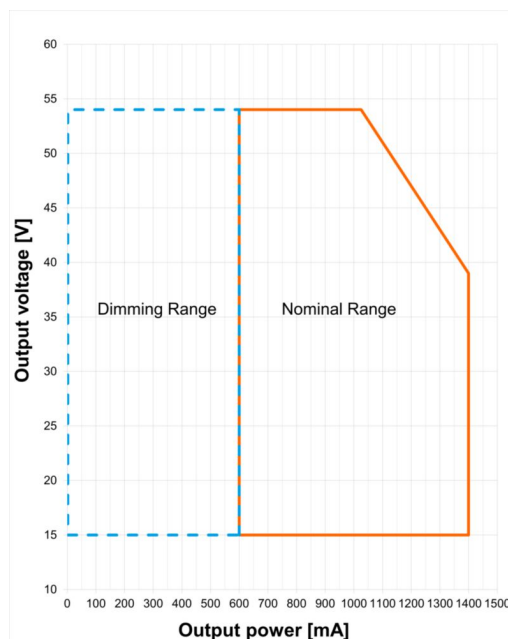
8) At full load, 220...240 V, 50 Hz / see graphs

## Typical Power Factor v Load



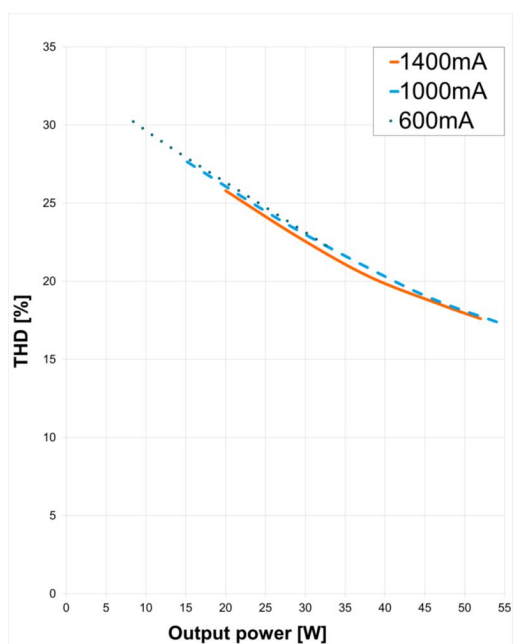
OTI DALI 50 NFC TW Typical Power Factor vs. Load

## Operating Window



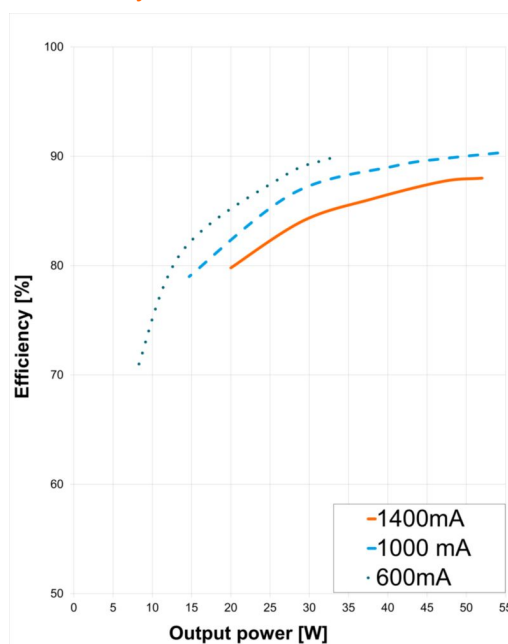
OTI DALI 50 NFC TW Operating window

## Typical THD v Load



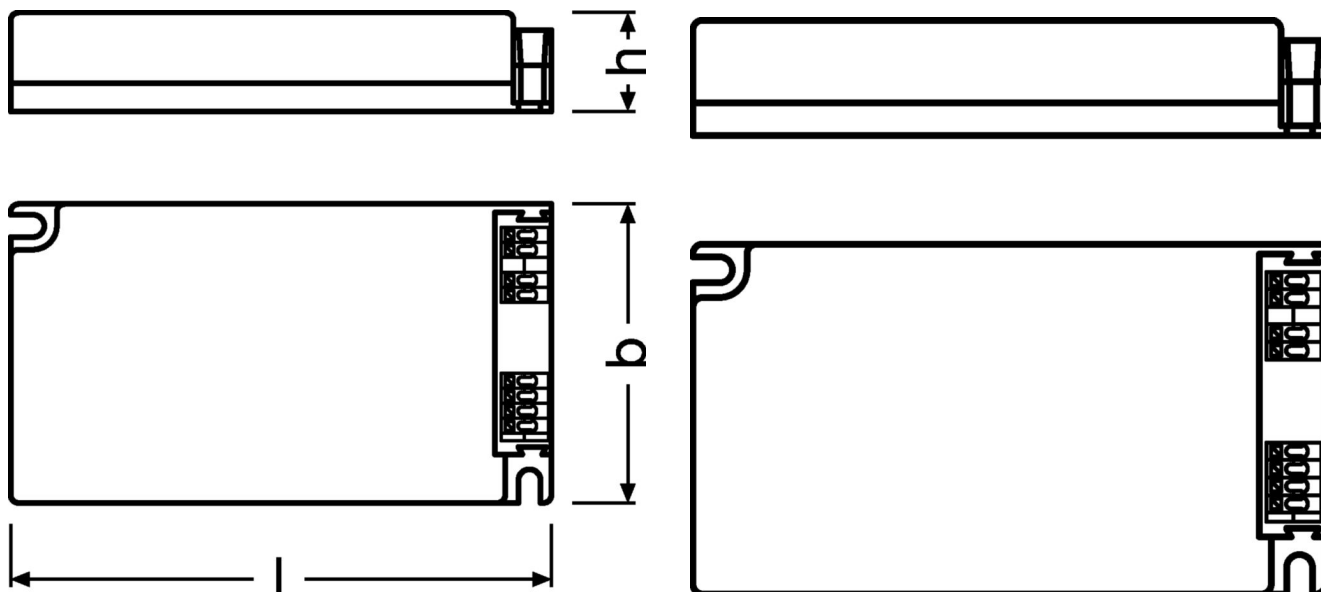
OTI DALI 50 NFC TW Typical THD Vs Load

## 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
Height	25.0 mm
Width	75.0 mm
Cable cross-section, input side	0.5...1.5 mm <sup>2 1)</sup>
Cable cross-section, output side	0.5...1.5 mm <sup>2 1)</sup>
Cable/wire length, output side	2000 mm
Mounting hole spacing, length	124.0 mm
Mounting hole spacing, width	64.0 mm
Wire preparation length, input side	8.0...9.0 mm
Wire preparation length, output side	8.0...9.0 mm

1) Solid or flexible leads

## Colors & materials

Casing material	Plastic
Product color	White

## Temperatures & operating conditions

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

1) Maximum at the Tc-point

2) Maximum 56 days/year at 85 %

## Lifespan

ECG lifetime	50000 h / 100000 h <sup>1)</sup>
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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

Max. cable length to lamp/LED module	2.0 m <sup>1)</sup>
Number of channels	2 <sup>2)</sup>
Dimmable	Yes
Dimming interface	DALI-2 / Touch DIM / Touch DIM Sensor
Dimming method	Amplitude Modulation
Dimming range	1...100 %
Overload protection	Automatic reversible
Overheating protection	Automatic reversible
Short-circuit protection	Automatic reversible
Suitable for through-wiring	Yes with optional cable clamp
Suitable for emergency lighting	Yes
Suitable for fixtures with prot. class	I / II
Type of connection, input side	Push terminal
Type of connection, output side	Push terminal
Constant lumen function	Programmable
No-load proof	Yes
Programming interface	DALI, NFC

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

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

## Programming

Box programming	Yes
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## Programmable features

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

1) Acc. DALI part 251

## Certificates & standards

Type of protection	IP20
Standards	Acc. to IEC 61347-1 / Acc. to IEC 61347-2-13 / Acc. to IEC 62384 / Acc. to EN 55015 / Acc. to IEC 62386 / Acc. to IEC 61000-3-2 / Acc. to IEC 61000-3-3 / Acc. to IEC 61547 / Acc. to CISPR 15 / Acc. to ETSI EN 300 330 / Acc. to ETSI EN 301 489 - 1 / Acc. to ETSI EN 301 489-3
Approval marks – approval	CE / UKCA / EAC / DALI-2 / EL

## Logistical data

Commodity code	85044083900
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## Additional product information

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

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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.

## 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 161023
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	OTi DALI 50/220-240/1A4 NFC TW	Shipping carton box 20 Pieces	303 x 262 x 98 mm	7.78 dm³	285.00 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
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 TL	▶ 4052899325982
OTi DALI 50/220-240/1A4 NFC TW	PRH101 -USB	▶ 6977078996938
OTi DALI 50/220-240/1A4 NFC TW	CPR30 -USB	▶ 6977078996945

### Disclaimer

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