OPTOTRONIC Intelligent – DALI NFC TW

Compact constant current LED driver – Dimmable



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

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 °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

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Product family datasheet

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

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Technical data

Electrical data

Product description	Nominal input voltage	Mains frequency	Input voltage AC	Input voltage DC	Total harmonic distortion	Power factor λ
OTi DALI 35/220...240/1A0 NFC TW	220...240 V	0/50/60 Hz	198...264 V [1)]	176...276 V	< 20 % [2)]	0.74C...0.96
OTi DALI 50/220...240/1A4 NFC TW	220...240 V	0/50/60 Hz	198...264 V [1)]	176...276 V	< 20 % [2)]	0.83C...0.97

Product description	Efficiency in full-load	Inrush current	Max. ECG no. on circuit breaker 10 A (C)	Max. ECG no. on circuit breaker 10 A (B)	Max. ECG no. on circuit breaker 16 A (B)
OTi DALI 35/220...240/1A0 NFC TW	90 % [3)]	19 A [4)]	-	22	36
OTi DALI 50/220...240/1A4 NFC TW	90.5 % [3)]	27 A [10)]	-	14	23

Product description	Max. ECG no. on circuit breaker 16 A (C)	Max. ECG no. on circuit breaker 25 A (B)	Surge capability (L/N-Ground)	Surge capability (L-N)
OTi DALI 35/220...240/1A0 NFC TW	-	-	2 kV	1 kV
OTi DALI 50/220...240/1A4 NFC TW	-	-	2 kV	1 kV

Product description	Nominal output voltage	U-OUT (working voltage)	Nominal output current	Default output current, 2-channel DT6
OTi DALI 35/220...240/1A0 NFC TW	15...54 V [5)]	60 V	350...1050 mA	350 mA [6)]
OTi DALI 50/220...240/1A4 NFC TW	15...54 V [5)]	60 V	600...1400 mA	600 mA [6)]

Product description	Default output current, TW DT8	Output current tolerance	Output ripple current (100 Hz)
OTi DALI 35/220...240/1A0 NFC TW	350 mA [7)]	±3 %	< 1 % [8)]
OTi DALI 50/220...240/1A4 NFC TW	600 mA [7)]	±3 %	< 1 % [8)]

Product description	Output PSTLM	Output SVM	Nominal output power	Maximum output power
OTi DALI 35/220...240/1A0 NFC TW	<1	<0.4	38 W [9)]	38 W
OTi DALI 50/220...240/1A4 NFC TW	<1	<0.4	55 W [11)]	55 W

Product description	Galvanic isolation primary/secondary	Networked standby power	Power loss in stand-by mode	Current set
OTi DALI 35/220...240/1A0 NFC TW	SELV	<0.25 W [3)]	<0.25 W	DALI / NFC
OTi DALI 50/220...240/1A4 NFC TW	SELV	<0.25 W [3)]	<0.25 W	DALI / NFC

Product description	Default output current	Galvanic isolation DALI/mains	Galvanic isolation DALI/output
OTi DALI 35/220...240/1A0 NFC TW	350 mA	Basic	SELV
OTi DALI 50/220...240/1A4 NFC TW	600 mA	Basic	SELV

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1) Permitted voltage range

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

3) at 230 V, 50 Hz

4) t_{width} = 200 µs (measured at 50 % I_{peak})

5) Maximum 60 V

6) Per channel

7) Sum of both channels

8) Ripple average at 100 Hz

9) Partial load 5.25…38 W

10) t_{width} = 205 µs (measured at 50 % I_{peak})

11) Partial load 9…55 W

Dimensions & weight

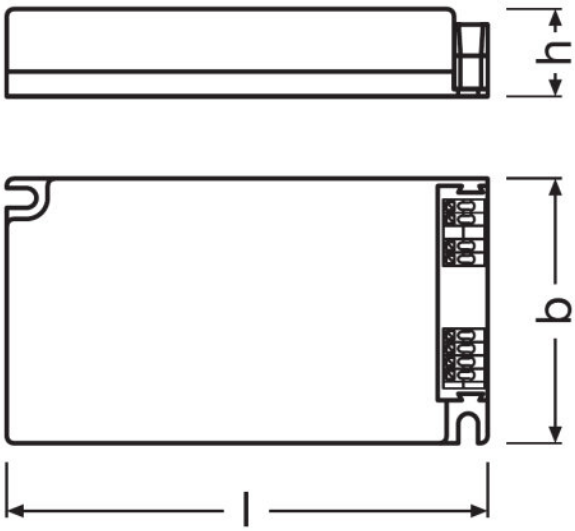
Product description	Mounting hole spacing, length	Mounting hole spacing, width	Product weight	Cable cross-section, input side	Cable cross-section, output side
OTi DALI 35/220…240/1A0 NFC TW	124.0 mm	64.0 mm	200.00 g	0.5…1.5 mm² 1)	0.5…1.5 mm² 1)
OTi DALI 50/220…240/1A4 NFC TW	124.0 mm	64.0 mm	220.00 g	0.5…1.5 mm² 1)	0.5…1.5 mm² 1)

Product description	Wire preparation length, input side	Wire preparation length, output side	Height	Width	Length
OTi DALI 35/220…240/1A0 NFC TW	8.0…9.0 mm	8.0…9.0 mm	25.0 mm	75.0 mm	135.0 mm
OTi DALI 50/220…240/1A4 NFC TW	8.0…9.0 mm	8.0…9.0 mm	25.0 mm	75.0 mm	135.0 mm

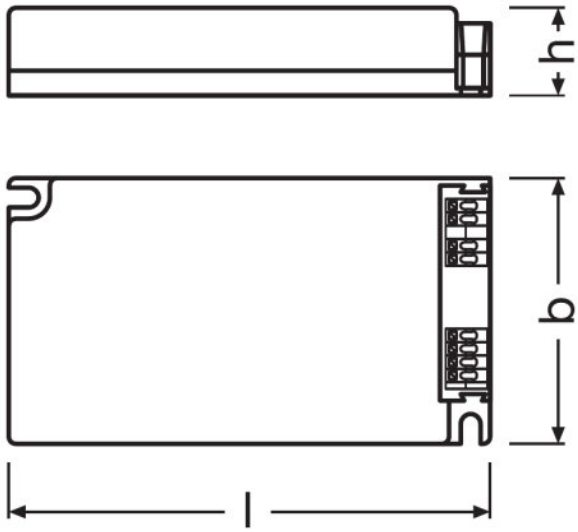
1) Solid or flexible leads

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Product line drawing



OTi DALI 35/220...240/1A0 NFC TW



OTi DALI 50/220...240/1A4 NFC TW

Colors & materials

Product description	Casing material
OTi DALI 35/220...240/1A0 NFC TW	Plastic
OTi DALI 50/220...240/1A4 NFC TW	Plastic

Temperatures & operating conditions

Product description	Ambient temperature range	Maximum temperature at tc test point	Max.housing temperature in case of fault	Temperature range at storage
OTi DALI 35/220...240/1A0 NFC TW	-25...+60 °C	75 °C [1)]	110 °C	-40...+85 °C
OTi DALI 50/220...240/1A4 NFC TW	-25...+50 °C	75 °C [1)]	110 °C	-40...+85 °C

Product description	Permitted rel. humidity during operation
OTi DALI 35/220...240/1A0 NFC TW	5...85 % [2)]
OTi DALI 50/220...240/1A4 NFC TW	5...85 % [2)]

[1)] Maximum at the Tc-point

[2)] Maximum 56 days/year at 85 %

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Lifespan

Product description	ECG lifetime
OTi DALI 35/220...240/1A0 NFC TW	50000 / 100000 h [1)]
OTi DALI 50/220...240/1A4 NFC TW	50000 / 100000 h [1)]

[1)] T_c = 75°C, 0.2% / 1,000 h failure rate / T_c = 65°C, 0.1% / 1,000 h failure rate

Additional product data

Product description	Encapsulated
OTi DALI 35/220...240/1A0 NFC TW	No
OTi DALI 50/220...240/1A4 NFC TW	No

Capabilities

Product description	Dimmable	Dimming interface	Dimming range	Dimming method
OTi DALI 35/220...240/1A0 NFC TW	Yes	DALI-2 / Touch DIM / Touch DIM Sensor	1...100 %	Amplitude Modulation
OTi DALI 50/220...240/1A4 NFC TW	Yes	DALI-2 / Touch DIM / Touch DIM Sensor	1...100 %	Amplitude Modulation

Product description	Overheating protection	Overload protection	Short-circuit protection	No-load proof
OTi DALI 35/220...240/1A0 NFC TW	Automatic reversible	Automatic reversible	Automatic reversible	Yes
OTi DALI 50/220...240/1A4 NFC TW	Automatic reversible	Automatic reversible	Automatic reversible	Yes

Product description	Intended for no-load operation	Max. cable length to lamp/LED module	Suitable for fixtures with prot. class	Type of connection, input side
OTi DALI 35/220...240/1A0 NFC TW	No	2.0 m [1)]	I / II	Push terminal
OTi DALI 50/220...240/1A4 NFC TW	No	2.0 m [1)]	I / II	Push terminal

Product description	Type of connection, output side	DALI-2 Diagnostic Data	DALI-2 Energy Data
OTi DALI 35/220...240/1A0 NFC TW	Push terminal	Yes [2)]	Yes [3)]
OTi DALI 50/220...240/1A4 NFC TW	Push terminal	Yes [2)]	Yes [3)]

Product description	Programming interface	Constant lumen function	Suitable for emergency lighting	Number of channels
OTi DALI 35/220...240/1A0 NFC TW	DALI, NFC	Programmable	Yes	2 [4)]
OTi DALI 50/220...240/1A4 NFC TW	DALI, NFC	Programmable	Yes	2 [4)]

Product description	Control interface	Suitable for through-wiring
OTi DALI 35/220...240/1A0 NFC TW	DALI-2	Yes with optional cable clamp

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Product description	Control interface	Suitable for through-wiring
OTi DALI 50/220...240/1A4 NFC TW	DALI-2	Yes with optional cable clamp

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

2) Acc. DALI part 253

3) Acc. DALI part 252

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

Programming

Product description	Box programming	Tuner4TRONIC	Tuner4TRONIC Field App
OTi DALI 35/220...240/1A0 NFC TW	Yes	Yes	No
OTi DALI 50/220...240/1A4 NFC TW	Yes	Yes	No

Product description	Programming device
OTi DALI 35/220...240/1A0 NFC TW	DALI / NFC
OTi DALI 50/220...240/1A4 NFC TW	DALI / NFC

Programmable features

Product description	Lamp Operating Time	Constant Lumen	Operating Current
OTi DALI 35/220...240/1A0 NFC TW	Yes	Yes	Yes
OTi DALI 50/220...240/1A4 NFC TW	Yes	Yes	Yes

Product description	OEM Key	Corridor Functionality	TouchDIM + Sensor
OTi DALI 35/220...240/1A0 NFC TW	No	Yes	Yes
OTi DALI 50/220...240/1A4 NFC TW	No	Yes	Yes

Product description	Dim to Dark	Soft Switch Off	Configuration Lock
OTi DALI 35/220...240/1A0 NFC TW	Yes	Yes	Yes
OTi DALI 50/220...240/1A4 NFC TW	Yes	Yes	Yes

Product description	DALI-2 Luminaire Data	Emergency Mode	DALI Settings
OTi DALI 35/220...240/1A0 NFC TW	Yes [1)]	Yes	Yes
OTi DALI 50/220...240/1A4 NFC TW	Yes [1)]	Yes	Yes

Product description	Driver Guard	End of Life
OTi DALI 35/220...240/1A0 NFC TW	Yes	-
OTi DALI 50/220...240/1A4 NFC TW	Yes	-

1) Acc. DALI part 251

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Certificates & standards

Product description	Approval marks – approval	Standards	Protection class	Type of protection
OTi DALI 35/220...240/1A0 NFC TW	CE / UKCA / EAC / DALI-2 / EL	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	II	IP20
OTi DALI 50/220...240/1A4 NFC TW	CE / UKCA / EAC / DALI-2 / EL	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	II	IP20

Logistical data

Product description	Commodity code
OTi DALI 35/220...240/1A0 NFC TW	85044083900
OTi DALI 50/220...240/1A4 NFC TW	85044083900

Environmental information
Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACh)

Product description	Date of Declaration	Primary Article Identifier	Candidate List Substance 1
OTi DALI 35/220...240/1A0 NFC TW	21-07-2023	4062172123501 | 4050732497308	Lead
OTi DALI 50/220...240/1A4 NFC TW	21-07-2023	4062172123525 | 4050732497315	Lead

Product description	CAS No. of substance 1	Safe Use Instruction	Declaration No. in SCIP database
OTi DALI 35/220...240/1A0 NFC TW	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	a8162289-3e12-4f4d-8104-490069fe2434 | adaf701f-b8b2-4355-b326-d0be798f2e5a
OTi DALI 50/220...240/1A4 NFC TW	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	129a71b3-1c82-4a8f-8d0c-870827f842e9 | e34b9cb6-8048-4a46-9c3b-5f3bd2b2c48d

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Application advice

For more detailed application information and graphics please see product datasheet.

Additional product information

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

Sales and Technical Support

Sales and Technical Support www.osram.com

Download Data

	File
	User instruction OPTOTRONIC LED Power Supply
	User instruction OPTOTRONIC LED Power Supply
	Certificates OTI DALI NFC TW CB DE1 64955 010621
	Certificates OT ENEC 40038447 260623
	Certificates OT EMC 40044675 031022
	Declarations of conformity OTi DALI NFC TW CE 4274927 161023
	Declarations of conformity OTi DALI NFC TW UK CE 4281062 040923
	CAD data OTI DALI 35 NFC TW IGS 101220
	CAD data OTI DALI 35 NFC TW STEP 101220
	CAD Data 2-dim OTI DALI 35 NFC TW CAD2PDF 101220
	CAD data 3-dim OTI DALI 35 NFC TW CAD3PDF 101220
	CAD data OTI DALI 50 NFC TW IGS 111220
	CAD data OTI DALI 50 NFC TW STEP 111220
	CAD Data 2-dim OTI DALI 50 NFC TW CAD2PDF 111220

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	CAD data 3-dim OTI DALI 50 NFC TW CAD3PDF 111220

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
4062172123501	OTi DALI 35/220...240/1A0 NFC TW	Shipping carton box 20	303 mm x 262 mm x 98 mm	7.78 dm^3	4285.00 g
4062172123525	OTi DALI 50/220...240/1A4 NFC TW	Shipping carton box 20	303 mm x 262 mm x 98 mm	7.78 dm^3	4685.00 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.

Accessories Optional

Product description	Accessory name	Accessory code
OTi DALI 35/220...240/1A0 NFC TW	OT CABLE CLAMP A-STYLE	4052899089570
OTi DALI 35/220...240/1A0 NFC TW	OT CABLE CLAMP A-STYLE TL	4052899325982
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 TL	4052899325982

Data privacy

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This OSRAM driver can be configured using the Tuner4TRONIC software. This requires registering on www.myosram.com 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, 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.

Disclaimer

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