

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 $T_C = 65\text{ °C}$, 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



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

Product family datasheet

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⁾	≥ 0.95
OTi DALI 50/220...240/1A4 NFC TW	220...240 V	0/50/60 Hz	198...264 V ¹⁾	176...276 V	< 20 % ²⁾	≥ 0.95

Product description	Efficiency in full-load	Networked standby power	Inrush current	Max. ECG no. on circuit breaker 10 A (C)
OTi DALI 35/220...240/1A0 NFC TW	90 % ³⁾	<0.25 W ³⁾	19 A ⁴⁾	-
OTi DALI 50/220...240/1A4 NFC TW	90.5 % ³⁾	<0.25 W ³⁾	27 A ¹⁰⁾	-

Product description	Max. ECG no. on circuit breaker 10 A (B)	Max. ECG no. on circuit breaker 16 A (C)	Max. ECG no. on circuit breaker 16 A (B)	Max. ECG no. on circuit breaker 25 A (B)
OTi DALI 35/220...240/1A0 NFC TW	22	-	36	-
OTi DALI 50/220...240/1A4 NFC TW	14	-	23	-

Product description	Surge capability (L/N-Ground)	Surge capability (L-N)	Nominal output voltage	U-OUT (working voltage)	Nominal output current
OTi DALI 35/220...240/1A0 NFC TW	2 kV	1 kV	15...54 V ⁵⁾	60 V	350...1050 mA
OTi DALI 50/220...240/1A4 NFC TW	2 kV	1 kV	15...54 V ⁵⁾	60 V	600...1400 mA

Product description	Default output current, 2-channel DT6	Default output current, TW DT8	Output current tolerance
OTi DALI 35/220...240/1A0 NFC TW	350 mA ⁶⁾	350 mA ⁷⁾	± 3 %
OTi DALI 50/220...240/1A4 NFC TW	600 mA ⁶⁾	600 mA ⁷⁾	± 3 %

Product description	Output ripple current (100 Hz)	Output PSTLM	Output SVM	Nominal output power
OTi DALI 35/220...240/1A0 NFC TW	< 1 % ⁸⁾	<1	<0.4	38 W ⁹⁾
OTi DALI 50/220...240/1A4 NFC TW	< 1 % ⁸⁾	<1	<0.4	55 W ¹¹⁾

Product description	Maximum output power	Galvanic isolation DALI/output	Current set
OTi DALI 35/220...240/1A0 NFC TW	38 W	SELV	DALI / NFC
OTi DALI 50/220...240/1A4 NFC TW	55 W	SELV	DALI / NFC

Product description	Galvanic isolation DALI/mains	Galvanic isolation primary/secondary
OTi DALI 35/220...240/1A0 NFC TW	Basic	SELV
OTi DALI 50/220...240/1A4 NFC TW	Basic	SELV

¹⁾ Permitted voltage range

Product family datasheet

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

3) at 230 V, 50 Hz

4) $t_{\text{width}} = 200 \mu\text{s}$ (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) $t_{\text{width}} = 205 \mu\text{s}$ (measured at 50 % I_{peak})

11) Partial load 9...55 W

Dimensions & weight

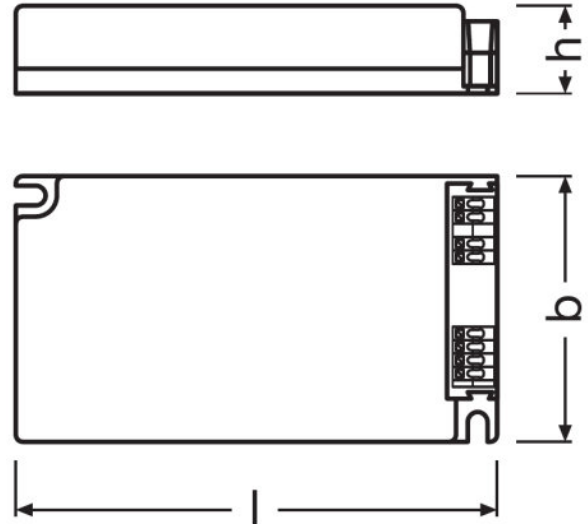
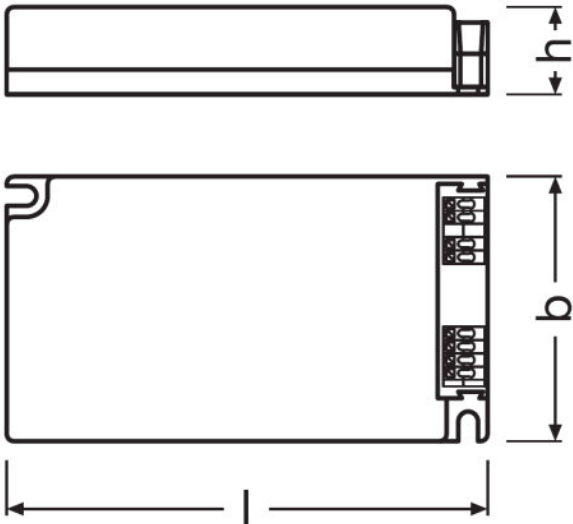
Product description	Mounting hole spacing, length	Mounting hole spacing, width	Product weight	Cable cross-section, input side	Cable cross-section, output side
OTi DALI 35/220...240/1A0 NFC TW	124.0 mm	64.0 mm	200.00 g	0.5...1.5 mm ² 1)	0.5...1.5 mm ² 1)
OTi DALI 50/220...240/1A4 NFC TW	124.0 mm	64.0 mm	220.00 g	0.5...1.5 mm ² 1)	0.5...1.5 mm ² 1)

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

1) Solid or flexible leads

Product family datasheet

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 %

Product family datasheet

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

Capabilities

Product description	Dimmable	Dimming interface	Dimming range	Dimming method
OTi DALI 35/220...240/1A0 NFC TW	Yes	DALI / Touch DIM / Touch DIM Sensor	1...100 % ¹⁾	Amplitude Modulation
OTi DALI 50/220...240/1A4 NFC TW	Yes	DALI / Touch DIM / Touch DIM Sensor	1...100 % ¹⁾	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	I / II	Push terminal
OTi DALI 50/220...240/1A4 NFC TW	No	2.0 m	I / II	Push terminal

Product description	Type of connection, output side	Number of channels	Suitable for emergency lighting	Constant lumen function
OTi DALI 35/220...240/1A0 NFC TW	Push terminal	2 ²⁾	Yes	Programmable
OTi DALI 50/220...240/1A4 NFC TW	Push terminal	2 ²⁾	Yes	Programmable

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

¹⁾ For maximum nominal output current

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

Programming

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

Product description	Box programming
OTi DALI 35/220...240/1A0 NFC TW	Yes
OTi DALI 50/220...240/1A4 NFC TW	Yes

Product family datasheet

Programmable features

Product description	OEM Key	Configuration Lock	Emergency Mode
OTi DALI 35/220...240/1A0 NFC TW	No	Yes	Yes
OTi DALI 50/220...240/1A4 NFC TW	No	Yes	Yes
Product description	TouchDIM + Sensor	Dim to Dark	Soft Switch Off
OTi DALI 35/220...240/1A0 NFC TW	Yes	Yes	Yes
OTi DALI 50/220...240/1A4 NFC TW	Yes	Yes	Yes
Product description	Driver Guard	DALI Settings	Corridor Functionality
OTi DALI 35/220...240/1A0 NFC TW	Yes	Yes	Yes
OTi DALI 50/220...240/1A4 NFC TW	Yes	Yes	Yes
Product description	Constant Lumen	Lamp Operating Time	
OTi DALI 35/220...240/1A0 NFC TW	Yes	Yes	
OTi DALI 50/220...240/1A4 NFC TW	Yes	Yes	

Certificates & standards

Product description	Approval marks – approval	Standards	Protection class	Type of protection
OTi DALI 35/220...240/1A0 NFC TW	CE / 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 / 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	850440829000
OTi DALI 50/220...240/1A4 NFC TW	850440829000

Product family datasheet

Environmental information

Product description	Date of Declaration	Primary Article Identifier	Candidate List Substance 1
OTi DALI 35/220...240/1A0 NFC TW	23-12-2021	4062172123501 4050732497308	Lead
OTi DALI 50/220...240/1A4 NFC TW	23-12-2021	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.	e3748cf7-f939-4d7a-ba93-725b6c174659
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.	0d241297-b899-4681-a166-f39ea3ec187b


Application advice

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









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 161221
 Certificates OT EMC 40044675 250621
 Declarations of conformity OTi DALI NFC TW CE 4274927 020921
 Declarations of conformity OTi DALI NFC TW UK CE 4281062 290121

Product family datasheet

	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
	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
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Product family datasheet

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

Disclaimer

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