

OT DEXAL NFC IP20 Outdoor

D4i, DEXAL, AstroDIM, StepDIM - constant current LED drivers



Product family features

- DEXAL interface based on DALI-2 communication
- Available with different wattage: 40 W, 75 W, 110 W, 165 W
- Current output range: 70...1,050 mA
- AstroDIM for autonomous dimming with five independent levels (astro, time mode)
- Standby power consumption: < 0.5 W
- Integrated customizable thermal management (Driver Guard)
- Constant Lumen Output (CLO)

Product family benefits

- Zhaga Book18 compliant and D4i certified incl. Parts 25x + AUX
- Electrical interface and data communication fully based on open standards
- Fully programmable via software (DALI Interface, NFC)
- Low luminous efficacy tolerance through low output current tolerance of $\pm 3\%$
- High surge protection: up to 10 kV (1 pulse) in protection class I or II
- Lifetime: up to 100,000 h (depending on T_c temperature, max. 10 % failure rate)
- Mains input undervoltage protection
- Very high efficiency
- Fulfill safety requirement due to overload, overtemperature, Hot Plug protection



Product family datasheet

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

Product family datasheet

Technical data

Product description	Electrical data			Dimensions & weight
	Networked standby power	Maximum output power	Efficiency in full-load	Length
OT DX 40/220...240/1A0 DIMA LT2 E	< 0.50 W ¹⁾	40 W	89 % ¹⁾	133.0 mm
OT DX 75/220...240/1A0 DIMA LT2 E	< 0.50 W ¹⁾	75 W	93 % ¹⁾	150.0 mm
OT DX 110/220...240/1A0 DIMA LT2 E	< 0.50 W ¹⁾	110 W	93 % ¹⁾	170.0 mm
OT DX 165/220...240/1A0 DIMA LT2 E	< 0.50 W ¹⁾	165 W	94 % ¹⁾	170.0 mm

Product description	Width	Height	Mounting hole spacing, length	Product weight	Cable cross-section, input side	Cable cross-section, output side
OT DX 40/220...240/1A0 DIMA LT2 E	77.0 mm	40.0 mm	122.5 mm	235.00 g	0.2...1.5 mm ² ²⁾	0.2...1.5 mm ² ²⁾
OT DX 75/220...240/1A0 DIMA LT2 E	90.0 mm	40.0 mm	134.0 mm	335.00 g	0.2...1.5 mm ² ²⁾	0.2...1.5 mm ² ²⁾
OT DX 110/220...240/1A0 DIMA LT2 E	100.0 mm	40.0 mm	160.0 mm	1050.00 g	0.2...1.5 mm ² ²⁾	0.2...1.5 mm ² ²⁾
OT DX 165/220...240/1A0 DIMA LT2 E	100.0 mm	40.0 mm	160.0 mm	1050.00 g	0.2...1.5 mm ² ²⁾	0.2...1.5 mm ² ²⁾

Product description	Wire preparation length, input side	Mounting hole spacing, width	Temperatures & operating conditions		
			Ambient temperature range	Temperature range at storage	Maximum temperature at tc test point
OT DX 40/220...240/1A0 DIMA LT2 E	8.5...9.5 mm		-40...+55 °C	-25...85 °C	80 °C
OT DX 75/220...240/1A0 DIMA LT2 E	8.5...9.5 mm		-40...+55 °C	-25...85 °C	85 °C
OT DX 110/220...240/1A0 DIMA LT2 E	8.5...9.5 mm	90.0 mm	-40...+60 °C	-25...85 °C	85 °C
OT DX 165/220...240/1A0 DIMA LT2 E	8.5...9.5 mm	90.0 mm	-40...+55 °C	-25...85 °C	90 °C

Product description	Max.housing temperature in case of fault	Permitted rel. humidity during operation	Lifespan	Capabilities
			ECG lifetime	Intended for no-load operation
OT DX 40/220...240/1A0 DIMA LT2 E	120 °C	5...85 % ³⁾	100000 h ⁴⁾	No
OT DX 75/220...240/1A0 DIMA LT2 E	120 °C	5...85 % ³⁾	100000 h ⁷⁾	No
OT DX 110/220...240/1A0 DIMA LT2 E	120 °C	5...85 % ³⁾	100000 h ⁷⁾	No
OT DX 165/220...240/1A0 DIMA LT2 E	120 °C	5...85 % ³⁾	100000 h ⁸⁾	No

Product family datasheet

Product description	Programming			
	Programming device	Tuner4TRONIC Field App	Tuner4TRONIC	Box programming
OT DX 40/220...240/1A0 DIMA LT2 E	DALI / NFC	Yes	Yes	Yes
OT DX 75/220...240/1A0 DIMA LT2 E	DALI / NFC	Yes	Yes	
OT DX 110/220...240/1A0 DIMA LT2 E	DALI / NFC	Yes	Yes	
OT DX 165/220...240/1A0 DIMA LT2 E	DALI / NFC	Yes	Yes	

Product description	Programmable features			
	Emergency Mode	DALI-2 Luminaire Data	Configuration Lock	Thermal Protection
OT DX 40/220...240/1A0 DIMA LT2 E	Yes	Yes ⁵⁾	Yes	Yes
OT DX 75/220...240/1A0 DIMA LT2 E	Yes	Yes ⁵⁾	Yes	Yes
OT DX 110/220...240/1A0 DIMA LT2 E	Yes	Yes ⁵⁾	Yes	Yes
OT DX 165/220...240/1A0 DIMA LT2 E	Yes	Yes ⁵⁾	Yes	Yes

Product description	Constant Lumen	Driver Guard	AstroDIM	StepDIM
OT DX 40/220...240/1A0 DIMA LT2 E	Yes	Yes	Yes	Yes ⁶⁾
OT DX 75/220...240/1A0 DIMA LT2 E	Yes	Yes	Yes	Yes ⁶⁾
OT DX 110/220...240/1A0 DIMA LT2 E	Yes	Yes	Yes	Yes ⁶⁾
OT DX 165/220...240/1A0 DIMA LT2 E	Yes	Yes	Yes	Yes ⁶⁾

Product description	Certificates & standards			Logistical data
	Type of protection	Standards	Approval marks – approval	Commodity code
OT DX 40/220...240/1A0 DIMA LT2 E	IP20	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 62384/Acc. to EN 55015:2006 + A1:2007 + A2:2009/Acc. to EN 61547/Acc. to FCC 47 part 15 class B/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 62386-101/Acc. to IEC 62386-102/Acc. to IEC 62386-207/Acc. to IEC 62386-150/Acc. to IEC 62386-250/Acc. to IEC 62386-251, -252, -253	CE / ENEC / VDE / VDE-EMC / CCC / EL / DALI-2 / D4i	850440829000

Product family datasheet

Product description	Certificates & standards			Logistical data
	Type of protection	Standards	Approval marks – approval	Commodity code
OT DX 75/220...240/1A0 DIMA LT2 E	IP20	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 62384/Acc. to EN 55015:2006 + A1:2007 + A2:2009/Acc. to EN 61547/Acc. to FCC 47 part 15 class B/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 62386-101/Acc. to IEC 62386-102/Acc. to IEC 62386-207/Acc. to IEC 62386-150/Acc. to IEC 62386-250/Acc. to IEC 62386-251, -252, -253	CE / ENEC / VDE / VDE-EMC / CCC / EL / DALI-2 / D4i	850440829000
OT DX 110/220...240/1A0 DIMA LT2 E	IP20	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 62384/Acc. to EN 55015:2006 + A1:2007 + A2:2009/Acc. to EN 61547/Acc. to FCC 47 part 15 class B/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 62386-101/Acc. to IEC 62386-102/Acc. to IEC 62386-207/Acc. to IEC 62386-150/Acc. to IEC 62386-250/Acc. to IEC 62386-251, -252, -253	CE / ENEC / VDE / VDE-EMC / CCC / EL / DALI-2 / D4i	850440829000
OT DX 165/220...240/1A0 DIMA LT2 E	IP20	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 62384/Acc. to EN 55015:2006 + A1:2007 + A2:2009/Acc. to EN 61547/Acc. to FCC 47 part 15 class B/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 62386-101/Acc. to IEC 62386-102/Acc. to IEC 62386-207/Acc. to IEC 62386-150/Acc. to IEC 62386-250/Acc. to IEC 62386-251, -252, -253	CE / ENEC / VDE / VDE-EMC / CCC / EL / DALI-2 / D4i	850440829000

1) at 230 V, 50 Hz

2) Solid/ Flexible Leads

3) Non condensing, absolute humidity: 36g/m³

4) At $T_{case} = 68^{\circ}C$ at T_c point / 10% failure rate

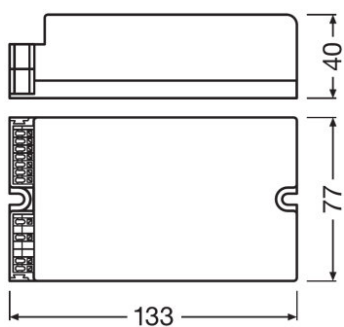
5) Acc. DALI part 251

6) StepDIM functionality with external component 'OT DX SD BOX' only

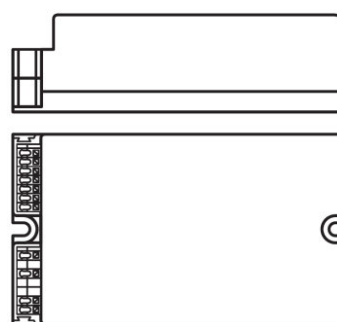
7) At $T_{case} = 73^{\circ}C$ at T_c point / 10% failure rate

8) At $T_{case} = 78^{\circ}C$ at T_c point / 10% failure rate

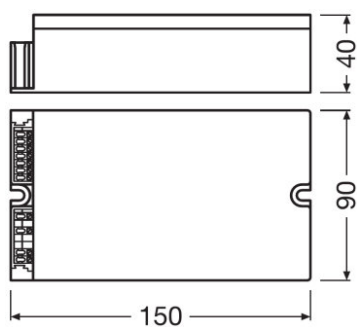
Product family datasheet



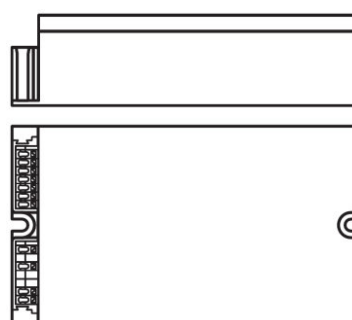
OT DX 40220-2401A0 DIMA LT2 E



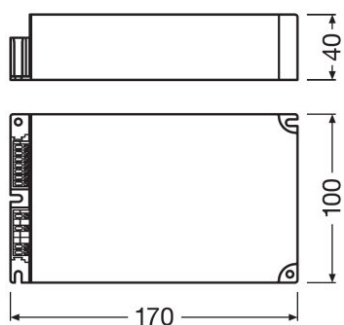
OT DX 40220-2401A0 DIMA LT2 E



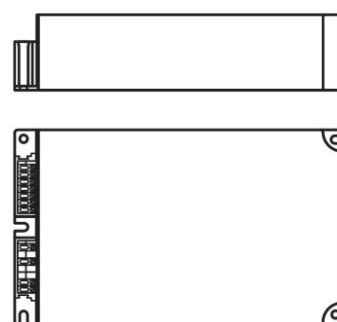
OT DX 75220-2401A0 DIMA LT2 E



OT DX 75220-2401A0 DIMA LT2 E

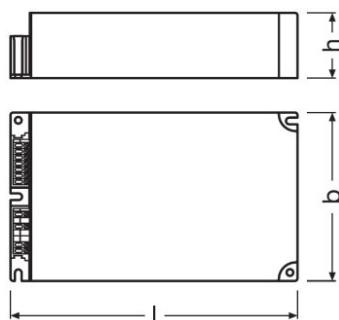


OT DX 110220-2401A0 DIMA LT2 E



OT DX 110220-2401A0 DIMA LT2 E

Product family datasheet



OT DX 165220-2401A0 DIMA LT2 E

Application advice

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

Additional product information

- Default output current is 700 mA without any resistor connected to the LEDset port. As soon as the driver detects one time a resistor value within the resistor range of 4,7 kOhm (1050 mA) and 24,9 kOhm (200 mA) for more than 3 s, the driver activates the LEDset2 mode.
- The driver withstands an input voltage of up to 300 V AC for a maximum of two hours. An output load shutdown can occur in case the supply voltage exceeds the input voltage range defined.
- Shut down of output load happens if the input voltage of the load is below the allowed minimum output voltage of the driver. The driver automatically tries to switch on the load cyclically.
- The driver automatically reduces the output current in case the maximum allowed output power is exceeded, as long as the input voltage of the load is within the declared output voltage range of the driver. In all other cases the driver may shut down the load.
- The driver is protected against temporary overheating by automatically reduction of the output current.
- Several external NTCs are supported for temperature protection of the LED module or luminaire. The type of NTC can be selected in the programming software in the temperature based mode. By default the resistor based mode is activated with following values: start derating: 6.3 kOhm, end derating 5.0 kOhm, shut off: 4.3 kOhm, derating level 50 %.
- If the dimming mode is changed via NFC while the driver is not powered, one additional power on/off cycle is needed before the dimming mode becomes active.
- The constant lumen feature is disabled by default.
- If any output level is below the physical min level, the physical min level will be used.
- The driver is intended for luminaire built-in use.
- Mind the polarity of the DALI lines. DA+ to DA+, DA- to DA- only.
- The DEXAL interface is polarity sensitive, even if the DEXAL bus power supply in the driver is turned off. Therefore the polarity of all connected drivers should not be mixed.
- For efficiency and standby power measurement, the D4i bus power supply shall be switched off by using Tuner4TRONIC. Refer to www.tuner4tronic.com.

Sales and Technical Support





Sales and Technical Support www.osram.com

Product family datasheet

Download Data

File	
	User instruction OPTOTRONIC Outdoor
	Brochures Technical application guide DEXAL LED drivers (EN)
	Brochures Technical Application Guide - 4DIMLT2 G2 CE LED drivers (EN)
	Certificates OT ENEC 40050684 060421
	Certificates OT EMC 40050085 200220
	Certificates VDE ENEC Certificate 40043863
	Certificates OT EMC 40044675 250621
	Declarations of conformity OT DX DIMA LT2 E CE 3745354 051219
	CAD data OT DX 40 DIMA LT2E IGS 030220
	CAD data OT DX 40 DIMA LT2E STEP 030220
	CAD Data 2-dim OT DX 40 DIMA LT2E CAD2PDF 030220
	CAD data 3-dim OT DX 40 DIMA LT2E CAD3PDF 030220
	CAD data OT DX 75 DIMA LT2E IGS 060220
	CAD data OT DX 75 DIMA LT2E STEP 060220
	CAD Data 2-dim OT DX 75 DIMA LT2E CAD2PDF 060220
	CAD data 3-dim OT DX 75 DIMA LT2E CAD3PDF 060220
	Certificates OT DX DIMA LT2 E CB DE1 63485 060520
	CAD data OT DX 110 DIMA LT2E IGS 060220
	CAD data OT DX 110 DIMA LT2E STEP 060220
	CAD Data 2-dim OT DX 110 DIMA LT2E CAD2PDF 060220
	CAD data 3-dim OT DX 110 DIMA LT2E CAD3PDF 060220

Product family datasheet

	CAD data OT DX 165 DIMA LT2E IGS 120220
	CAD data OT DX 165 DIMA LT2E STEP 120220
	CAD Data 2-dim OT DX 165 DIMA LT2E CAD2PDF 120220
	CAD data 3-dim OT DX 165 DIMA LT2E CAD3PDF 120220

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
4052899999664	OT DX 40/220...240/1A0 DIMA LT2 E	Shipping carton box 20	609 mm x 289 mm x 118 mm	20.77 dm ³	5264.00 g
4052899999671	OT DX 75/220...240/1A0 DIMA LT2 E	Shipping carton box 10	385 mm x 300 mm x 125 mm	14.44 dm ³	3691.00 g
4052899999688	OT DX 110/220...240/1A0 DIMA LT2 E	Shipping carton box 10	303 mm x 285 mm x 205 mm	17.70 dm ³	11137.00 g
4052899999695	OT DX 165/220...240/1A0 DIMA LT2 E	Shipping carton box 10	303 mm x 285 mm x 205 mm	17.70 dm ³	11137.00 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
OT DX 40/220...240/1A0 DIMA LT2 E	OT DX SD BOX	4062172048002
OT DX 75/220...240/1A0 DIMA LT2 E	OT DX SD BOX	4062172048002

Product family datasheet

OT DX 110/220...240/1A0 DIMA LT2 E	OT DX SD BOX	▶ 4062172048002
OT DX 165/220...240/1A0 DIMA LT2 E	OT DX SD BOX	▶ 4062172048002

Data privacy

This OSRAM driver can be configured using the Tuner4TRONIC software. This requires registering on 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.

Disclaimer

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