

## OPTOTRONIC Intelligent – DEXAL (non-isolated)

Linear constant current LED driver – Dimmable



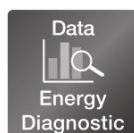
### Areas of application

- Linear lighting for office, education, industry, storage areas and retail
- DEXAL, easy connection to different partner BMS systems
- Suitable for "Works with OSRAM DEXAL" partner components
- Suitable for luminaires of protection class I

### Product family benefits

- Versatile non-isolated DEXAL LED driver up to 75 W due to flexible output characteristic
- Integrated DEXAL Bus power supply for sensors and wireless radios
- Simplified luminaire design for wireless lighting control system and sensors
- Locking and unlocking of luminaire/driver data
- Advanced luminaire/driver data (power, energy, operating hours...) for analytics
- Prepared for DiiA Specification Parts -250, -251, -252 and -253
- Fully programmable via T4T software (NFC, DALI Interface)
- Very high efficiency
- Protection against 4 kV burst and 1.5 kV surge voltage (L-N)
- Wide operating range up to 600 mA

OSRAM  
DEXAL®



## Product family datasheet

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### Product family features

- Line frequency: 0 Hz | 50 Hz | 60 Hz
- Supply voltage: 220...240 V
- Constant Lumen Output (CLO)
- Monitoring of luminaire operating parameters
- Non-isolated drivers

# Product family datasheet

## Technical data

### Electrical data

Product description	Nominal input voltage	Mains frequency	Input voltage AC	Input voltage DC	Current set
OTI DX 35/220...240/400 D NFC L	220...240 V	0/50/60 Hz	198...264 V	176...276 V	DALI / NFC / LEDset / Programmable
OTI DX 75/220...240/600 D NFC L	220...240 V	0/50/60 Hz	198...264 V	176...276 V	DALI / NFC / LEDset / Programmable

Product description	Total harmonic distortion	Power factor $\lambda$	Efficiency in full-load	Device power loss
OTI DX 35/220...240/400 D NFC L	< 10 % <sup>1)</sup>	> 0.95 <sup>2)</sup>	90 % <sup>3)</sup>	3.8 W
OTI DX 75/220...240/600 D NFC L	< 10 % <sup>1)</sup>	> 0.95 <sup>2)</sup>	93 % <sup>3)</sup>	5.25 W

Product description	Networked standby power	Inrush current	Max. ECG no. on circuit breaker 10 A (B)	Max. ECG no. on circuit breaker 16 A (B)
OTI DX 35/220...240/400 D NFC L	< 0.25 W <sup>3)</sup>	18 A	17	28
OTI DX 75/220...240/600 D NFC L	< 0.25 W <sup>3)</sup>	27 A <sup>5)</sup>	15	24

Product description	Surge capability (L/N-Ground)	Surge capability (L-N)	Nominal output voltage	U-OUT (working voltage)	Nominal output current
OTI DX 35/220...240/400 D NFC L	2 kV	1.5 kV	54...240 V	< 250 V	75...400 mA
OTI DX 75/220...240/600 D NFC L	2 kV	1.5 kV	54...240 V	< 250 V	120...600 mA

Product description	Default output current	Output current tolerance	Output ripple current (100 Hz)
OTI DX 35/220...240/400 D NFC L	60 mA <sup>4)</sup>	±5 %	< 4 %
OTI DX 75/220...240/600 D NFC L	60 mA <sup>4)</sup>	±5 %	< 4 %

Product description	Output PSTLM	Output SVM	Nominal output power	Maximum output power
OTI DX 35/220...240/400 D NFC L	≤1	≤0.4	4...38 W	38 W
OTI DX 75/220...240/600 D NFC L	≤1	≤0.4	6.5...75 W	75 W

Product description	Galvanic isolation
OTI DX 35/220...240/400 D NFC L	Non isolated
OTI DX 75/220...240/600 D NFC L	Non isolated

<sup>1)</sup> At full load

<sup>2)</sup> Full load at 230 V

<sup>3)</sup> at 230 V, 50 Hz

<sup>4)</sup> LEDset deactivated

<sup>5)</sup>  $t_{width} = 200 \mu s$  (measured at 50 %  $I_{peak}$ )

## Product family datasheet

### Dimensions & weight

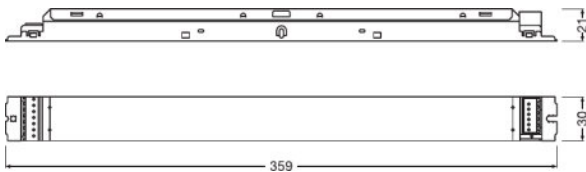
Product description	Mounting hole spacing, length	Product weight	Cable cross-section, input side	Cable cross-section, output side	Wire preparation length, input side
OTI DX 35/220...240/400 D NFC L	350.0 mm	227.40 g	0.5...1.5 mm <sup>2</sup> <sup>1)</sup>	0.5...1.5 mm <sup>2</sup> <sup>1)</sup>	8.0...9.0 mm
OTI DX 75/220...240/600 D NFC L	350.0 mm	243.00 g	0.5...1.5 mm <sup>2</sup> <sup>1)</sup>	0.5...1.5 mm <sup>2</sup> <sup>1)</sup>	8.0...9.0 mm

Product description	Wire preparation length, output side
OTI DX 35/220...240/400 D NFC L	8.0...9.0 mm
OTI DX 75/220...240/600 D NFC L	8.0...9.0 mm

<sup>1)</sup> Solid or flexible leads

### Product line drawing



OTI DX 35/220...240/400 D NFC L, OTI DX 75/220...240/600 D NFC L

### Colors & materials

Product description	Casing material
OTI DX 35/220...240/400 D NFC L	Metal
OTI DX 75/220...240/600 D NFC L	Metal

## Product family datasheet

### 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 DX 35/220...240/400 D NFC L	-25...+60 °C	75 °C <sup>1)</sup>	110 °C	-40...+85 °C
OTI DX 75/220...240/600 D NFC L	-25...+55 °C	75 °C <sup>1)</sup>	110 °C	-40...+85 °C

Product description	Permitted rel. humidity during operation
OTI DX 35/220...240/400 D NFC L	5...85 % <sup>2)</sup>
OTI DX 75/220...240/600 D NFC L	5...85 % <sup>2)</sup>

<sup>1)</sup> Maximum at the T<sub>c</sub>-point

<sup>2)</sup> Maximum 56 days/year at 85 %

### Lifespan

Product description	ECG lifetime
OTI DX 35/220...240/400 D NFC L	50000 / 100000 h <sup>1)</sup>
OTI DX 75/220...240/600 D NFC L	50000 / 100000 h <sup>1)</sup>

<sup>1)</sup> At maximum T<sub>c</sub> = 75°C / 10% failure rate / At T<sub>c</sub> = 65°C / 10% failure rate

### Expected Lifetime

Product name				
OTI DX 35/220...240/400 D NFC L	ECG ambient temperature [ta]	60	50	-
	Temperature at tc-point [°C]	75	65	-
	Lifetime [h]	50000 <sup>1)</sup>	100000 <sup>1)</sup>	-
OTI DX 75/220...240/600 D NFC L	ECG ambient temperature [ta]	55	45	-
	Temperature at tc-point [°C]	75	65	-
	Lifetime [h]	50000 <sup>2)</sup>	100000 <sup>2)</sup>	-

<sup>1)</sup> Max. 10% failure rate at tc max and input voltage 230 V<sub>AC</sub>

<sup>2)</sup> Max. 10% failure rate at tc max and input voltage 230 V<sub>AC</sub>

### Additional product data

Product description	Encapsulated
OTI DX 35/220...240/400 D NFC L	No
OTI DX 75/220...240/600 D NFC L	No

## Product family datasheet

### Capabilities

Product description	Programming interface	Dimmable	Dimming interface	Dimming range
OTI DX 35/220...240/400 D NFC L	DEXAL, NFC, LEDset	Yes	DALI-2 / DEXAL	1...100 %
OTI DX 75/220...240/600 D NFC L	DEXAL, NFC, LEDset	Yes	DALI-2 / DEXAL	1...100 %

Product description	Dimming method	Overheating protection	Overload protection
OTI DX 35/220...240/400 D NFC L	Full analogue dimming <sup>1)</sup>	Automatic reversible	Non-reversible
OTI DX 75/220...240/600 D NFC L	Full analogue dimming <sup>1)</sup>	Automatic reversible	Non-reversible

Product description	Short-circuit protection	No-load proof	Intended for no-load operation	Max. cable length to lamp/LED module
OTI DX 35/220...240/400 D NFC L	Automatic reversible	Yes	No	2.0 m
OTI DX 75/220...240/600 D NFC L	Automatic reversible	Yes	No	2.0 m

Product description	Suitable for fixtures with prot. class	Type of connection, input side	Type of connection, output side
OTI DX 35/220...240/400 D NFC L	I	Push terminal	Push terminal
OTI DX 75/220...240/600 D NFC L	I	Push terminal	Push terminal

<sup>1)</sup> Selectable by Tuner4TRONIC

### Programming

Product description	Programming device	Tuner4TRONIC Field App	Tuner4TRONIC
OTI DX 35/220...240/400 D NFC L	DALI magic / NFC Scanner	Yes	Yes
OTI DX 75/220...240/600 D NFC L	DALI magic / NFC Scanner	Yes	Yes

Product description	Box programming
OTI DX 35/220...240/400 D NFC L	Yes
OTI DX 75/220...240/600 D NFC L	Yes

### Programmable features

Product description	Constant Lumen	Driver Guard	DEXAL Power Supply Unit
OTI DX 35/220...240/400 D NFC L	Yes	Yes	Yes
OTI DX 75/220...240/600 D NFC L	Yes	Yes	Yes

Product description	DALI-2 Luminaire Data	Soft Switch Off	Dim to Dark
OTI DX 35/220...240/400 D NFC L	Yes	Yes	Yes
OTI DX 75/220...240/600 D NFC L	Yes	Yes	Yes

Product description	TouchDIM + Sensor	Operating Current	Lamp Operating Time
OTI DX 35/220...240/400 D NFC L	Yes	Yes	Yes
OTI DX 75/220...240/600 D NFC L	Yes	Yes	Yes

## Product family datasheet

### Certificates & standards

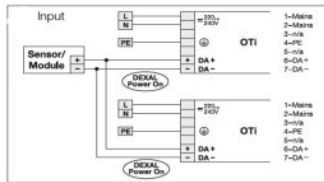
Product description	Approval marks – approval	Standards	Type of protection
OTI DX 35/220...240/400 D NFC L	CE / EL / VDE-ENEC / VDE-EMC / EAC / CCC / BIS / RCM	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 62384/Acc. to EN 61000-3-2/Acc. to EN 61000-3-3/Acc. to EN 61547	IP20
OTI DX 75/220...240/600 D NFC L	CE / EL / VDE-ENEC / VDE-EMC / EAC / CCC / BIS / RCM	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 62384/Acc. to EN 61000-3-2/Acc. to EN 61000-3-3/Acc. to EN 61547	IP20

### Logistical data

Product description	Commodity code
OTI DX 35/220...240/400 D NFC L	850440829000
OTI DX 75/220...240/600 D NFC L	850440829000

# Product family datasheet

## Wiring Diagram



OTI DX 35/220...240/400 D NFC L, OTI DX  
75/220...240/600 D NFC L

### Application advice

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

### Additional product information

- 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](http://www.tuner4tronic.com).

### Sales and Technical Support












Sales and Technical Support [www.osram.com](http://www.osram.com)

### Download Data

File



## Product family datasheet

	User instruction OPTOTRONIC LED Power Supply
	Brochures Technical application guide DEXAL LED drivers (EN)
	Certificates OT EMC 40050085 200220
	Certificates OT ENEC 40038085 130720
	Certificates OT EMC 40044675 250621
	Declarations of conformity OTi DX D NFC L UK DoC 4281283 080321
	Declarations of conformity OTI DX D NFC L CE 3704710 020921
	CAD data OTI DX D NFC L IGS 281119
	CAD data OTI DX D NFC L STEP 281119
	CAD Data 2-dim OTI DX D NFC L CAD2PDF 281119
	CAD data 3-dim OTI DX D NFC L CAD3PDF 281119

### 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
4052899590380	OTI DX 35/220...240/400 D NFC L	Shipping carton box 20	385 mm x 160 mm x 100 mm	6.16 dm <sup>3</sup>	4722.00 g
4052899590403	OTI DX 75/220...240/600 D NFC L	Shipping carton box 20	385 mm x 160 mm x 100 mm	6.16 dm <sup>3</sup>	5034.00 g

## Product family datasheet

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### Logistical Data

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.

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### 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.

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### Disclaimer

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