OTI DX 35/220-240/400 D NFC L

OPTOTRONIC Intelligent – DEXAL (non-isolated) | Linear constant current LED driver – Dimmable

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 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®

Luminaire Data

Data Energy Diagnostic

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

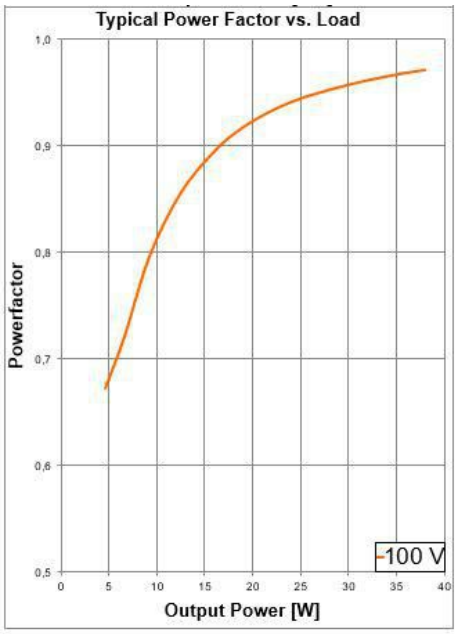
Technical data

Electrical data

Nominal input voltage	220…240 V
Mains frequency	0/50/60 Hz
Input voltage AC	198…264 V
Input voltage DC	176…276 V
Current set	DALI / NFC / LEDset / Programmable
Total harmonic distortion	< 10 % [1)]
Power factor λ	0.45C…0.96 [2)]
Efficiency in full-load	90 % [3)]
Device power loss	3.8 W
Inrush current	18 A
Max. ECG no. on circuit breaker 10 A (B)	17
Max. ECG no. on circuit breaker 16 A (B)	28
Surge capability (L/N-Ground)	2 kV
Surge capability (L-N)	1.5 kV
Nominal output voltage	54…240 V
U-OUT (working voltage)	< 250 V
Nominal output current	75…400 mA
Default output current	60 mA [4)]
Output current tolerance	±5 %
Output current LEDset open	60 mA
Output current LEDset shorted	120 mA
Output ripple current (100 Hz)	< 4 %
Output PSTLM	≤1
Output SVM	≤0.4
Nominal output power	4…38 W
Maximum output power	38 W
Galvanic isolation	Non isolated
DEXAL Supply Voltage	15 V
DEXAL Peak Supply Current	60 mA
DEXAL Guaranteed Supply Current	53 mA

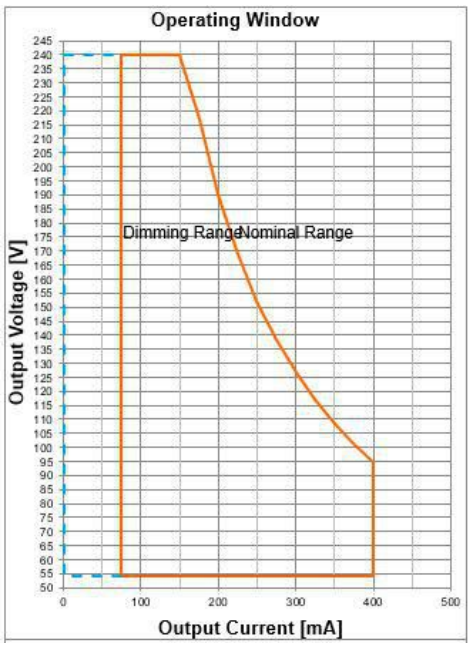
1) At full load
2) Full load at 230 V
3) at 230 V, 50 Hz
4) LEDset deactivated

Typical Power Factor v Load



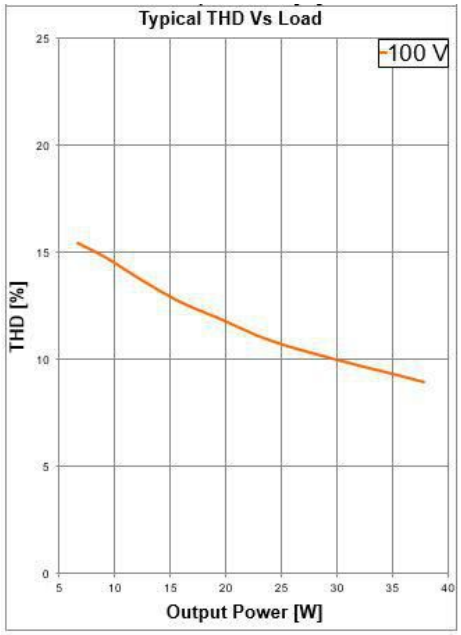
OTI DX 35/400 D NFC L Typical Power Factor vs. Load

Operating Window



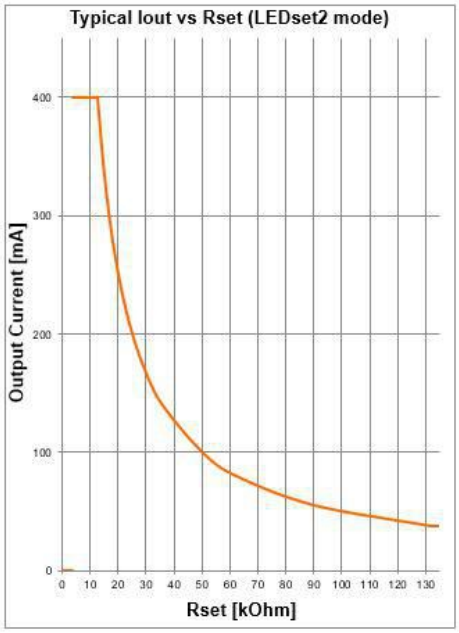
OTI DX 35/400 D NFC L Operating window

Typical THD v Load



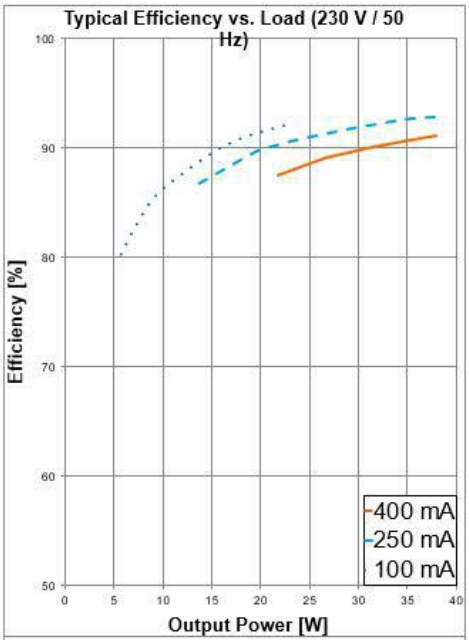
OTI DX 35/400 D NFC L Typical THD Vs Load

Typical Iout v Rset LEDset2 mode



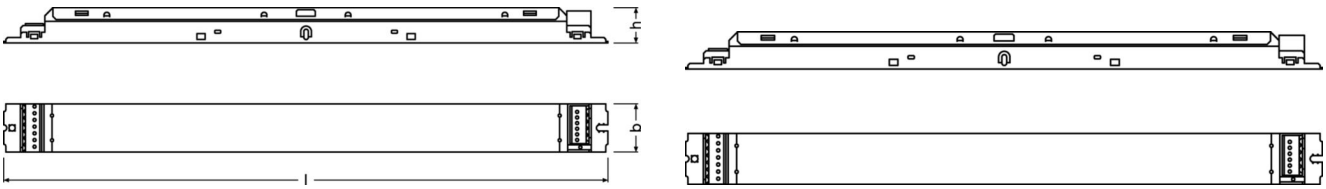
OTI DX 35/400 D NFC L Typical Lout vs Rset (LEDset2 mode)

Typical Efficiency v Load 230 V 50 Hz



OTI DX 35/400 D NFC L Typical Efficiency vs. Load (230 V / 50 Hz)

Dimensions & weight



Length	360.0 mm
Width	30.0 mm
Height	21.0 mm
Mounting hole spacing, length	350.0 mm
Cable cross-section, input side	0.5…1.5 mm² 1)
Cable cross-section, output side	0.5…1.5 mm² 1)
Wire preparation length, input side	8.0…9.0 mm
Wire preparation length, output side	8.0…9.0 mm
Product weight	227.40 g

1) Solid or flexible leads

Colors & materials

Casing material	Metal

Temperatures & operating conditions

Ambient temperature range	-25…+60 °C
Maximum temperature at tc test point	75 °C 1)
Max.housing temperature in case of fault	110 °C
Temperature range at storage	-40…+85 °C
Permitted rel. humidity during operation	5…85 % 2)

1) Maximum at the Tc-point
2) Maximum 56 days/year at 85 %

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	100000	

Lifespan

ECG lifetime	50000 h / 100000 h [1)]

1) At maximum T_c = 75°C / 10% failure rate / At T_c = 65°C / 10% failure rate

Additional product data

Encapsulated	No

Capabilities

Programming interface	DEXAL, NFC, LEDset
Control interface	DEXAL
Dimmable	Yes
Dimming interface	DALI-2 / DEXAL
Dimming range	1…100 %
Dimming method	Full analogue dimming [1)]
DALI-2 Diagnostic Data	Yes
DALI-2 Energy Data	Yes
Constant lumen function	Programmable
Max. cable length to lamp/LED module	2.0 m [2)]
Suitable for fixtures with prot. class	I
Suitable for emergency lighting	Yes
Type of connection, input side	Push terminal
Type of connection, output side	Push terminal
Number of channels	1
Overheating protection	Automatic reversible
Overload protection	Non-reversible
Short-circuit protection	Automatic reversible
Intended for no-load operation	No
No-load proof	Yes

1) Selectable by Tuner4TRONIC
2) Output wires must be routed as close as possible to each other

Programming

Programming device	DALI magic / NFC Scanner
Tuner4TRONIC	Yes
Tuner4TRONIC Field App	Yes
Box programming	Yes

Programmable features

Emergency Mode	Yes
DALI-2 Luminaire Data	Yes
TouchDIM + Sensor	Yes
Dim to Dark	Yes
Soft Switch Off	Yes
Tuning Factor	Yes
Driver Guard	Yes
Emergency Mode	Yes

Certificates & standards

Approval marks – approval	CE / EL / VDE-ENEC / VDE-EMC / EAC / CCC / BIS / RCM
Standards	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
Type of protection	IP20
Protection class	I

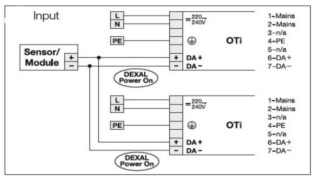
Logistical data

Commodity code	85044083900

Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACh)	
Date of Declaration	30-05-2024
Primary Article Identifier	4052899590380
Declaration No. in SCIP database	In work

Wiring Diagram



Wiring diagram OTI DX D NFC L

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.

Download Data

File		
Certificates	PDF	►OT ENEC 40038085 111023
CAD data 3-dim	Compressed	►OTI DX D NFC L CAD3PDF 281119
Brochures	PDF	►Technical application guide DEXAL LED drivers (EN)
CAD data 2-dim	Compressed	►OTI DX D NFC L CAD2PDF 281119
CAD data	Compressed	►OTI DX D NFC L IGS 281119
CAD data	Compressed	►OTI DX D NFC L STEP 281119
Mandatory Publications	PDF	►OTI DX D NFC L UK DoC 4281283 01 080923
Mandatory Publications	PDF	►OTI DX D NFC L CE 3704710 05 160523
User instruction	PDF	►OPTOTRONIC LED Power Supply

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 Pieces	385 x 160 x 100 mm	6.16 dm³	174.00 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 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.

Accessories Optional

Product description	Accessory name	Accessory code
OTI DX 35/220-240/400 D NFC L	PRH101 -USB	▸6977078996938
OTI DX 35/220-240/400 D NFC L	CPR30 -USB	▸6977078996945

Disclaimer

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