

OTI DX 150/220...240/850 D NFC IND L

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



Product family features

- Line frequency: 0 Hz | 50 Hz | 60 Hz
- Versatile scope of application due to output power range of up to 150 W
- Monitoring of luminaire operating parameters
- Supply voltage: 220...240 V
- Available with output current range: up to 850 mA
- Constant Lumen Output (CLO)
- Integrated customizable thermal management (Driver Guard)
- Non-isolated drivers

Product family benefits

- Versatile non-isolated DEXAL LED driver up to 150 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)
- Lifetime: up to 100,000 h (temperature at $T_c = 75\text{ }^\circ\text{C}$, max. 10 % failure rate)
- High light quality: 1...100% amplitude dimming and <1% output ripple current
- Wide operating temperature range: -40...+65 °C
- High surge protection: up to 4 kV (L-N) / 4 kV (L/N-PE)
- Integrated inrush current limiter
- Very high efficiency (up to 96%)

Product datasheet

Areas of application

- Linear and area lighting
- Industry lighting
- Suitable for luminaires of protection class I

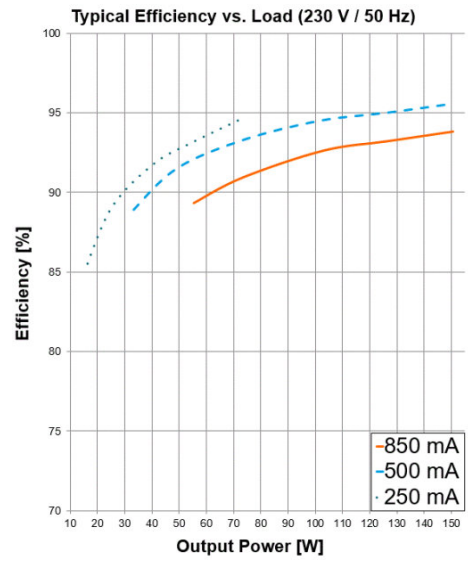
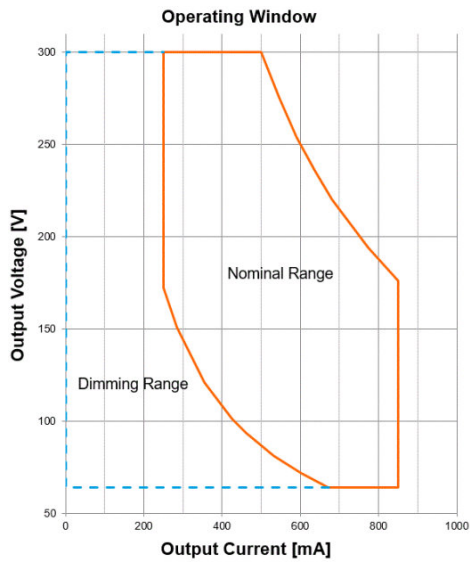
Technical data

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	NFC / LEDset / Programmable
Total harmonic distortion	< 10 %
Power factor λ	> 0.95
Efficiency in full-load	95 % ¹⁾
Device power loss	2.5 W
Inrush current	≤ 5 A
Max. ECG no. on circuit breaker 10 A (B)	14
Max. ECG no. on circuit breaker 10 A (C)	-
Max. ECG no. on circuit breaker 16 A (B)	22
Max. ECG no. on circuit breaker 16 A (C)	-
Max. ECG no. on circuit breaker 25 A (B)	-
Surge capability (L/N-Ground)	4 kV
Surge capability (L-N)	4 kV
Nominal output voltage	64...300 V
U-OUT (working voltage)	< 310 V
Nominal output current	250...850 mA
Output current LEDset open	125 mA
Output current LEDset shorted	250 mA
Default output current	125 mA ²⁾
Output current tolerance	±3 %
Output ripple current (100 Hz)	< 1 %
Output PSTLM	≤1
Output SVM	≤0.4
Nominal output power	43...150 W
Maximum output power	150 W
Galvanic isolation	Non isolated
Power loss in stand-by mode	<0.25 W
DEXAL Supply Voltage	15 V
DEXAL Peak Supply Current	60 mA
DEXAL Guaranteed Supply Current	53 mA

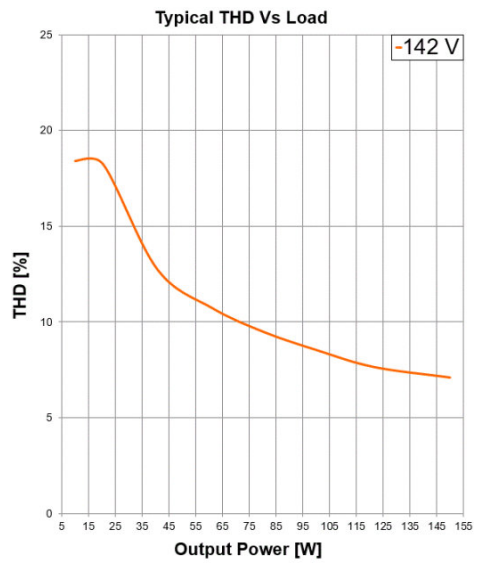
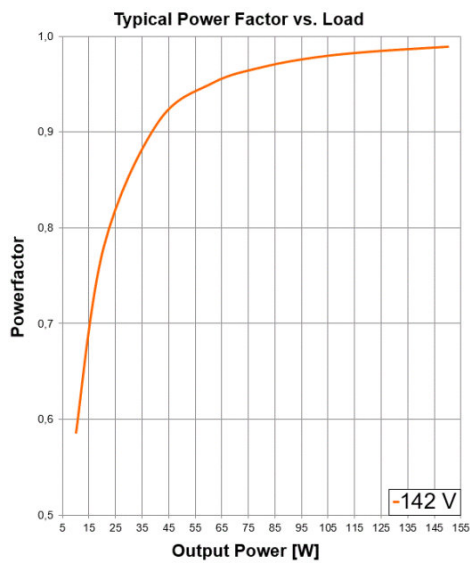
¹⁾ at 230 V, 50 Hz

²⁾ LEDset deactivated



Operating window OTI DX 150850 D NFC IND L

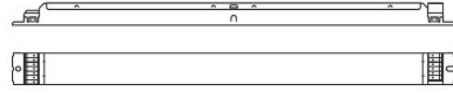
Typical Efficiency vs. Load (230 V 50 Hz) OTI DX 150850 D NFC IND L



Typical Power Factor vs. Load OTI DX 150850 D NFC IND L

Typical THD vs. Load OTI DX 150850 D NFC IND L

Dimensions & weight



Mounting hole spacing, length	414.0 mm
Product weight	318.93 g
Cable cross-section, input side	0.5...1.5 mm ²
Cable cross-section, output side	0.5...1.5 mm ²
Wire preparation length, input side	8.0...9.0 mm
Wire preparation length, output side	8.0...9.0 mm
Length	425.0 mm
Width	30.0 mm
Height	21.0 mm

Colors & materials

Casing material	Metal
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Temperatures & operating conditions

Ambient temperature range	-40...+65 °C
Maximum temperature at tc test point	85 °C
Max.housing temperature in case of fault	110 °C
Temperature range at storage	-40...+85 °C
Permitted rel. humidity during operation	5...85 % ¹⁾

¹⁾ Maximum 56 days/year at 85 %

Lifespan

ECG lifetime	100000 / 50000 h
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Additional product data

Encapsulated	No
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Capabilities

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

¹⁾ 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

DEXAL Power Supply Unit	Yes
DALI-2 Luminaire Data	Yes

Certificates & standards

Approval marks – approval	CE / EL / VDE-ENEC / VDE-EMC / EAC / CCC / BIS / RCM
Standards	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 62386/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61547
Type of protection	IP20

Product datasheet

Logistical data

Commodity code	850440839000
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Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)	
Date of Declaration	18-10-2022
Primary Article Identifier	4062172050920
Candidate List Substance 1	Lead
CAS No. of substance 1	7439-92-1
Safe Use Instruction	The identification of the Candidate List substance is sufficient to allow safe use of the article.
Declaration No. in SCIP database	9f93bb03-a796-4ce2-9c58-824ceaf02fde

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	
	User instruction OPTOTRONIC LED Power Supply
	Brochures Technical application guide DEXAL LED drivers (EN)
	Certificates OT ENEC 40038085 010322
	Certificates OT EMC 40044675 031022
	Declarations of conformity OTI DX D NFC IND L CE 3790165 020921
	Declarations of conformity OTI DX D NFC IND L UK DoC 4287982 090221
	CAD data OTI DX D NFC IND L IGS 191219
	CAD data OTI DX D NFC IND L STEP 191219
	CAD Data 2-dim OTI DX D NFC IND L CAD2PDF 191219

Product datasheet



CAD data 3-dim
OTI DX D NFC IND L CAD3PDF 191219

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
4062172050920	OTI DX 150/220...240/850 D NFC IND L	Shipping carton box 20	447 mm x 160 mm x 101 mm	7.22 dm ³	6577.00 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 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.

Product datasheet

Disclaimer

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