

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

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



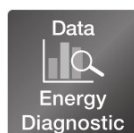
Product family features

- 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®



Product datasheet

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 | > 0.95 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 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 |
| Power loss in stand-by mode | <0.25 W ⁵⁾ |
| DEXAL Supply Voltage | 15 V |
| DEXAL Peak Supply Current | 60 mA |
| DEXAL Guaranteed Supply Current | 53 mA |

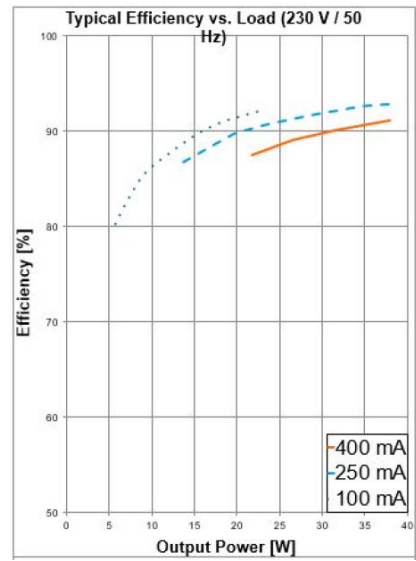
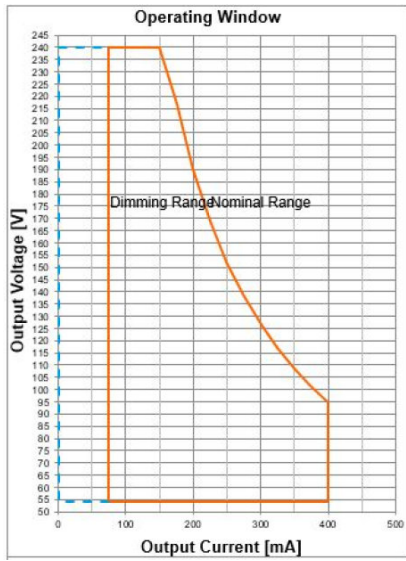
¹⁾ At full load

²⁾ Full load at 230 V

³⁾ at 230 V, 50 Hz

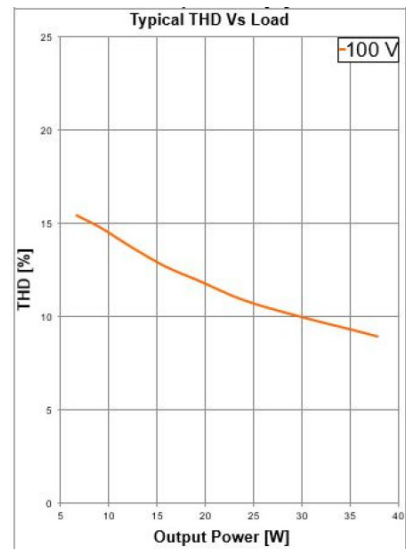
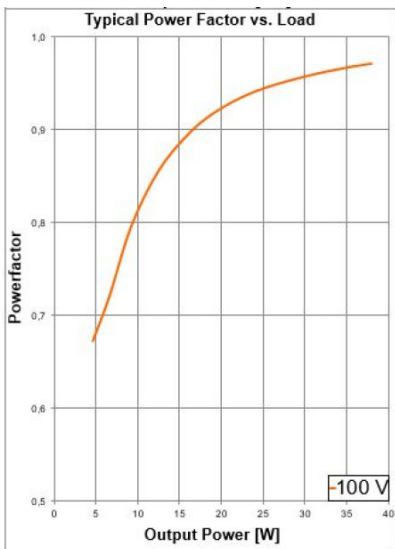
⁴⁾ LEDset deactivated

⁵⁾ DEXAL "OFF"



OTI DX 35400 D NFC L Operating window

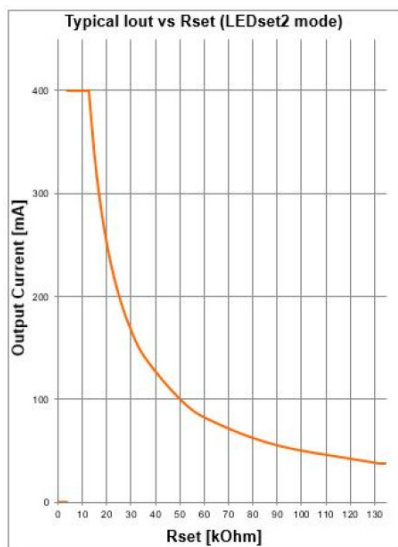
OTI DX 35400 D NFC L Typical Efficiency vs. Load (230 V 50 Hz)



OTI DX 35400 D NFC L Typical Power Factor vs. Load

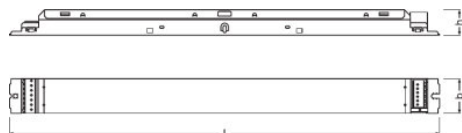
OTI DX 35400 D NFC L Typical THD Vs Load

Product datasheet



OTI DX 35400 D NFC L Typical Iout vs Rset (LEDset2 mode)

Dimensions & weight



| | |
|---|---|
| Mounting hole spacing, length | 350.0 mm |
| Product weight | 227.40 g |
| Cable cross-section, input side | 0.5...1.5 mm ² ¹⁾ |
| Cable cross-section, output side | 0.5...1.5 mm ² ¹⁾ |
| Wire preparation length, input side | 8.0...9.0 mm |
| Wire preparation length, output side | 8.0...9.0 mm |
| Length | 360.0 mm |
| Width | 30.0 mm |
| Height | 21.0 mm |

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 T_c-point

²⁾ Maximum 56 days/year at 85 %

Lifespan

| | |
|--------------|--------------------------------|
| ECG lifetime | 50000 / 100000 h ¹⁾ |
|--------------|--------------------------------|

¹⁾ At maximum T_c = 75°C / 10% failure rate / At T_c = 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 ¹⁾ | 100000 ¹⁾ | - |

¹⁾ Max. 10% failure rate at tc max and input voltage 230 V_{AC}

Additional product data

| | |
|--------------|----|
| Encapsulated | No |
|--------------|----|

Capabilities

| | |
|--------------------------|-------------------------------------|
| Programming interface | DEXAL, NFC, LEDset |
| Dimmable | Yes |
| Dimming interface | DALI-2 / DEXAL |
| Dimming range | 1...100 % |
| Dimming method | Full analogue dimming ¹⁾ |
| Overheating protection | Automatic reversible |
| Overload protection | Non-reversible |
| Short-circuit protection | Automatic reversible |

Product datasheet

| | |
|--|---------------------|
| No-load proof | Yes |
| Intended for no-load operation | No |
| Max. cable length to lamp/LED module | 2.0 m ²⁾ |
| 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⁾ 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

| | |
|-------------------------|-----|
| Operating Current | Yes |
| Constant Lumen | Yes |
| Lamp Operating Time | Yes |
| Driver Guard | Yes |
| DEXAL Power Supply Unit | Yes |
| DALI-2 Luminaire Data | Yes |
| Soft Switch Off | Yes |
| Dim to Dark | Yes |
| TouchDIM + Sensor | 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 |

Logistical data

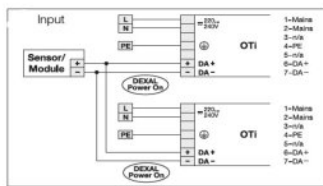
Product datasheet

| | |
|----------------|--------------|
| Commodity code | 850440839000 |
|----------------|--------------|

Environmental information

| Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH) | |
|---|--|
| Date of Declaration | 18-10-2022 |
| Primary Article Identifier | 4052899590380 |
| 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 | a8dc3e48-48f1-423e-8c07-dd9eb798203d |

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.

Product datasheet

Download Data

| File | |
|---|--|
|  | User instruction OPTOTRONIC LED Power Supply |
|  | Brochures Technical application guide DEXAL LED drivers (EN) |
|  | Certificates OT EMC 40050085 200220 |
|  | Certificates OT ENEC 40038085 010322 |
|  | Certificates OT EMC 40044675 031022 |
|  | 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 |
|--------------|---------------------|------------------------------|--------------------------------------|--------|--------------|
|--------------|---------------------|------------------------------|--------------------------------------|--------|--------------|

Product datasheet

Logistical Data

| | | | | | |
|---------------|------------------------------------|---------------------------|--------------------------|----------------------|-----------|
| 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 ³ | 4722.00 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.

Disclaimer

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