OPTOTRONIC Intelligent – DEXAL (SELV)

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

- D4i certified SELV DX LED driver up to 80 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
- Following DiiA Specification Parts -250, -251, -252 and -253
- Fully programmable via T4T software (NFC, DALI Interface)
- Very high efficiency
- Wide operating range up to 2100 mA

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
- SELV driver

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Technical data

Electrical data

Product description	Nominal input voltage	Mains frequency	Input voltage AC	Input voltage DC	Current set
OTI DX 35/220…240/700 NFC L	220…240 V	50/60 Hz	198…264 V	176…276 V	DALI / NFC
OTI DX 50/220…240/1A4 NFC L	220…240 V	50/60 Hz	198…264 V	176…276 V	DALI / NFC
OTI DX 80/220…240/2A1 NFC L	220…240 V	50/60 Hz	198…264 V	176…276 V	DALI / NFC

Product description	Total harmonic distortion	Power factor λ	Efficiency in full-load	Device power loss	Inrush current
OTI DX 35/220…240/700 NFC L	< 10 %	> 0.95	89 %	4.0 W	27 A
OTI DX 50/220…240/1A4 NFC L	< 10 %	> 0.95	90 %	6.0 W	28.6 mA
OTI DX 80/220…240/2A1 NFC L	< 10 %	> 0.95	91 %	8.0 W	40 A

Product description	Max. ECG no. on circuit breaker 10 A (B)	Max. ECG no. on circuit breaker 16 A (B)	Surge capability (L/N-Ground)	Surge capability (L-N)
OTI DX 35/220…240/700 NFC L	19	30	2 kV	1 kV
OTI DX 50/220…240/1A4 NFC L	14	22	2 kV	1 kV
OTI DX 80/220…240/2A1 NFC L	12	19	2 kV	1 kV

Product description	Nominal output voltage	U-OUT (working voltage)	Nominal output current	Default output current	Output current tolerance
OTI DX 35/220…240/700 NFC L	15…54 V	15…54 V	200…1050 mA	200 mA	±3 %
OTI DX 50/220…240/1A4 NFC L	15…54 V	15…54 V	400…1400 mA	400 mA	±3 %
OTI DX 80/220…240/2A1 NFC L	15…54 V	15…54 V	600…2100 mA	300 mA	±3 %

Product description	Output ripple current (100 Hz)	Output PSTLM	Output SVM	Nominal output power
OTI DX 35/220…240/700 NFC L	< ±3 %	<1	<0.4	4…37 W
OTI DX 50/220…240/1A4 NFC L	< ±3 %	<1	<0.4	12…54 W
OTI DX 80/220…240/2A1 NFC L	< ±3 %	<1	<0.4	32…80 W

Product description	Maximum output power	Galvanic isolation	DEXAL Guaranteed Supply Current
OTI DX 35/220…240/700 NFC L	37 W	SELV	53 mA
OTI DX 50/220…240/1A4 NFC L	54 W	SELV	53 mA
OTI DX 80/220…240/2A1 NFC L	80 W	SELV	53 mA

Product description	DEXAL Peak Supply Current	DEXAL Supply Voltage	Galvanic isolation primary/secondary	Power loss in stand-by mode
OTI DX 35/220…240/700 NFC L	62 mA	15 V	SELV	<0.2 W
OTI DX 50/220…240/1A4 NFC L	62 mA	15 V	SELV	<0.2 W

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Product description	DEXAL Peak Supply Current	DEXAL Supply Voltage	Galvanic isolation primary/secondary	Power loss in stand-by mode
OTI DX 80/220…240/2A1 NFC L	62 mA	15 V	SELV	<0.2 W

Product description	Protective conductor current	Networked standby power
OTI DX 35/220…240/700 NFC L	<0.5 mA	<0.20 W
OTI DX 50/220…240/1A4 NFC L	<0.5 mA	<0.20 W
OTI DX 80/220…240/2A1 NFC L	<0.5 mA	<0.20 W

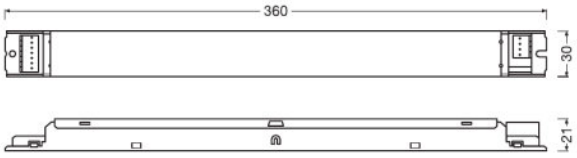
Dimensions & weight

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…240/700 NFC L	350.0 mm	250.00 g	0.5…1.5 mm²	0.5…1.5 mm²	8.0…9.0 mm
OTI DX 50/220…240/1A4 NFC L	350.0 mm	260.00 g	0.5…1.5 mm²	0.5…1.5 mm²	8.0…9.0 mm
OTI DX 80/220…240/2A1 NFC L	350.0 mm	270.00 g	0.5…1.5 mm²	0.5…1.5 mm²	8.0…9.0 mm

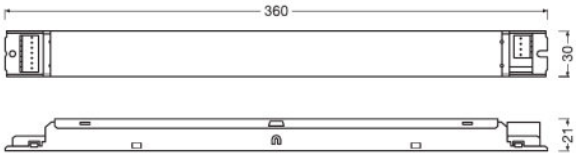
Product description	Wire preparation length, output side	Height	Width	Length
OTI DX 35/220…240/700 NFC L	8.0…9.0 mm	21.0 mm	30.0 mm	360.0 mm
OTI DX 50/220…240/1A4 NFC L	8.0…9.0 mm	21.0 mm	30.0 mm	360.0 mm
OTI DX 80/220…240/2A1 NFC L	8.0…9.0 mm	21.0 mm	30.0 mm	360.0 mm

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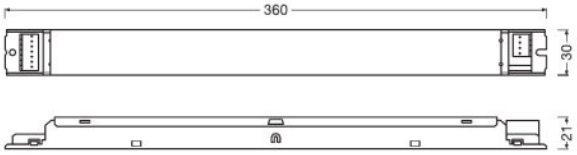
Product line drawing



OTI DX 35/220...240/700 NFC L



OTI DX 50/220...240/1A4 NFC L



OTI DX 80/220...240/2A1 NFC L

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Colors & materials

Product description	Casing material
OTI DX 35/220…240/700 NFC L	Metal
OTI DX 50/220…240/1A4 NFC L	Metal
OTI DX 80/220…240/2A1 NFC L	Metal

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…240/700 NFC L	-25…+60 °C	80 °C	110 °C	-40…+85 °C
OTI DX 50/220…240/1A4 NFC L	-25…+50 °C	75 °C	110 °C	-40…+85 °C
OTI DX 80/220…240/2A1 NFC L	-25…+50 °C	75 °C	110 °C	-40…+85 °C

Product description	Permitted rel. humidity during operation
OTI DX 35/220…240/700 NFC L	5…85 % [1)]
OTI DX 50/220…240/1A4 NFC L	5…85 % [1)]
OTI DX 80/220…240/2A1 NFC L	5…85 % [1)]

[1)] Maximum 56 days/year at 85 %

Lifespan

Product description	ECG lifetime
OTI DX 35/220…240/700 NFC L	100000 h
OTI DX 50/220…240/1A4 NFC L	100000 h
OTI DX 80/220…240/2A1 NFC L	100000 h

Additional product data

Product description	Encapsulated
OTI DX 35/220…240/700 NFC L	No
OTI DX 50/220…240/1A4 NFC L	No
OTI DX 80/220…240/2A1 NFC L	No

Capabilities

Product description	Programming interface	Dimmable	Dimming interface	Dimming range
OTI DX 35/220…240/700 NFC L	DEXAL, NFC	Yes	DALI	1…100 %
OTI DX 50/220…240/1A4 NFC L	DEXAL, NFC	Yes	DALI	1…100 %
OTI DX 80/220…240/2A1 NFC L	DEXAL, NFC	Yes	DALI	1…100 %

Product description	Dimming method	Constant lumen function	Overheating protection
OTI DX 35/220…240/700 NFC L	Analog	Yes	Automatic reversible

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Product description	Dimming method	Constant lumen function	Overheating protection
OTI DX 50/220...240/1A4 NFC L	Analog	Yes	Automatic reversible
OTI DX 80/220...240/2A1 NFC L	Analog	Yes	Automatic reversible

Product description	Overload protection	Short-circuit protection	No-load proof	Intended for no-load operation
OTI DX 35/220...240/700 NFC L	Automatic reversible	Automatic reversible	Yes	No
OTI DX 50/220...240/1A4 NFC L	Automatic reversible	Automatic reversible	Yes	No
OTI DX 80/220...240/2A1 NFC L	Automatic reversible	Automatic reversible	Yes	No

Product description	Max. cable length to lamp/LED module	Suitable for fixtures with prot. class	Suitable for emergency lighting	Type of connection, input side
OTI DX 35/220...240/700 NFC L	2.0 m [1)]	I	Yes	Push terminal
OTI DX 50/220...240/1A4 NFC L	2.0 m [1)]	I	Yes	Push terminal
OTI DX 80/220...240/2A1 NFC L	2.0 m [1)]	I	Yes	Push terminal

Product description	Type of connection, output side	Number of channels	DALI-2 Energy Data
OTI DX 35/220...240/700 NFC L	Push terminal	1	Yes
OTI DX 50/220...240/1A4 NFC L	Push terminal	1	Yes
OTI DX 80/220...240/2A1 NFC L	Push terminal	1	Yes

Product description	DALI-2 Diagnostic Data
OTI DX 35/220...240/700 NFC L	Yes
OTI DX 50/220...240/1A4 NFC L	Yes
OTI DX 80/220...240/2A1 NFC L	Yes

[1)] Output wires must be routed as close as possible to each other

Programming

Product description	Programming device	Box programming
OTI DX 35/220...240/700 NFC L	DALI magic / NFC Scanner	Yes
OTI DX 50/220...240/1A4 NFC L	DALI magic / NFC Scanner	Yes
OTI DX 80/220...240/2A1 NFC L	DALI magic / NFC Scanner	Yes

Programmable features

Product description	Operating Current	Constant Lumen	Lamp Operating Time
OTI DX 35/220...240/700 NFC L	Yes	Yes	Yes
OTI DX 50/220...240/1A4 NFC L	Yes	Yes	Yes
OTI DX 80/220...240/2A1 NFC L	Yes	Yes	Yes

Product description	End of Life	Driver Guard	DALI Settings
OTI DX 35/220...240/700 NFC L	Yes	Yes	Yes
OTI DX 50/220...240/1A4 NFC L	Yes	Yes	Yes
OTI DX 80/220...240/2A1 NFC L	Yes	Yes	Yes

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Product description	DEXAL Power Supply Unit	Emergency Mode	DALI-2 Luminaire Data
OTI DX 35/220…240/700 NFC L	Yes	Yes	Yes
OTI DX 50/220…240/1A4 NFC L	Yes	Yes	Yes
OTI DX 80/220…240/2A1 NFC L	Yes	Yes	Yes

Product description	Configuration Lock	Soft Switch Off	Dim to Dark
OTI DX 35/220…240/700 NFC L	Yes	Yes	Yes
OTI DX 50/220…240/1A4 NFC L	Yes	Yes	Yes
OTI DX 80/220…240/2A1 NFC L	Yes	Yes	Yes

Product description	TouchDIM + Sensor	Corridor Functionality
OTI DX 35/220…240/700 NFC L	Yes	Yes
OTI DX 50/220…240/1A4 NFC L	Yes	Yes
OTI DX 80/220…240/2A1 NFC L	Yes	Yes

Certificates & standards

Product description	Approval marks – approval	Standards
OTI DX 35/220…240/700 NFC L	CE / EL / ENEC / CCC / BIS / RCM	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
OTI DX 50/220…240/1A4 NFC L	CE / EL / ENEC / CCC / BIS / RCM	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
OTI DX 80/220…240/2A1 NFC L	CE / EL / ENEC / CCC / BIS / RCM	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

Logistical data

Product description	Commodity code
OTI DX 35/220…240/700 NFC L	85044083900
OTI DX 50/220…240/1A4 NFC L	85044083900
OTI DX 80/220…240/2A1 NFC L	85044083900

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Environmental information
Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACh)

Product description	Date of Declaration	Primary Article Identifier	Candidate List Substance 1
OTI DX 35/220...240/700 NFC L	28-11-2023	4062172372893	No declarable substances contained
OTI DX 50/220...240/1A4 NFC L	28-11-2023	4062172372916	No declarable substances contained
OTI DX 80/220...240/2A1 NFC L	28-11-2023	4062172372930	Lead

Product description	CAS No. of substance 1	Declaration No. in SCIP database	Safe Use Instruction
OTI DX 35/220...240/700 NFC L	7439-92-1	In work	
OTI DX 50/220...240/1A4 NFC L	7439-92-1	In work	
OTI DX 80/220...240/2A1 NFC L	7439-92-1	bd3df834-7413-4e30-9fcb-655651c17ed6	The identification of the Candidate List substance is sufficient to allow safe use of the article.

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.

Sales and Technical Support

Sales and Technical Support www.osram.com

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.

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Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4062172372893	OTI DX 35/220...240/700 NFC L	Shipping carton box 20	385 mm x 160 mm x 100 mm	6.16 dm^3	5174.00 g
4062172372916	OTI DX 50/220...240/1A4 NFC L	Shipping carton box 20	385 mm x 160 mm x 100 mm	6.16 dm^3	5374.00 g
4062172372930	OTI DX 80/220...240/2A1 NFC L	Shipping carton box 20	385 mm x 160 mm x 100 mm	6.16 dm^3	5574.00 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.

Disclaimer

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

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