

OPTOTRONIC Wireless Intelligent – QBM NFC L (SELV)

Linear constant current LED driver – Dimmable



Areas of application

- Linear lighting for office, education, hospitality and retail
- Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
- Suitable for indoor SELV installations
- Suitable for luminaires of protection class I

Product family benefits

- Versatile QBM window driver up to 80 W and 750 mA
- Fully programmable via software (NFC)
- Very high efficiency
- High-quality dimming of 1...100 %
- Higher quality of light thanks to < 1% output ripple current
- Fulfill safety requirement due to overload, overtemperature, Hot Plug protection

Product family features

- Qualified Bluetooth mesh enabled by Silvair
- Supply voltage: 220...240 V
- Line frequency: 0 Hz | 50 Hz | 60 Hz
- Lifetime: up to 100,000 h
- Type of protection: IP20
- SELV driver

Product family datasheet

Technical data

Electrical data

Product description	Nominal input voltage	Mains frequency	Input voltage AC	Input voltage DC	Current set
OT WI 35/220...240/1A0 NFC BL L	220...240 V	0/50/60 Hz	198...264 V	176...276 V	NFC / Programmable
OT WI 50/220...240/1A4 NFC BL L	220...240 V	0/50/60 Hz	198...264 V	176...276 V	NFC / Programmable
OT WI 80/220...240/2A1 NFC BL L	220...240 V	0/50/60 Hz	198...264 V	176...276 V	NFC / Programmable

Product description	Total harmonic distortion	Power factor λ	Efficiency in full-load	Device power loss	Inrush current
OT WI 35/220...240/1A0 NFC BL L	< 10 %	0.61C...0.98	89 %	3.0 W	≤ 18 A
OT WI 50/220...240/1A4 NFC BL L	< 10 %	0.72C...0.98	90 %	5.0 W	≤ 21 A
OT WI 80/220...240/2A1 NFC BL L	< 10 %	0.83C...0.99	90 %	8.0 W	≤ 30 A

Product description	Max. ECG no. on circuit breaker 10 A (C)	Max. ECG no. on circuit breaker 10 A (B)	Max. ECG no. on circuit breaker 16 A (C)	Max. ECG no. on circuit breaker 16 A (B)	Max. ECG no. on circuit breaker 25 A (B)
OT WI 35/220...240/1A0 NFC BL L	-	20	-	31	-
OT WI 50/220...240/1A4 NFC BL L	-	12	-	20	-
OT WI 80/220...240/2A1 NFC BL L	-	8	-	13	-

Product description	Surge capability (L/N-Ground)	Surge capability (L-N)	Nominal output voltage	U-OUT (working voltage)	Nominal output current
OT WI 35/220...240/1A0 NFC BL L	2 kV	1 kV	20...54 V	< 60 V	200...1050 mA
OT WI 50/220...240/1A4 NFC BL L	2 kV	1 kV	20...54 V	< 60 V	400...1400 mA
OT WI 80/220...240/2A1 NFC BL L	2 kV	1 kV	20...54 V	< 60 V	600...2100 mA

Product description	Default output current	Output current tolerance	Output ripple current (100 Hz)
OT WI 35/220...240/1A0 NFC BL L	200 mA	± 3 %	< 3 %
OT WI 50/220...240/1A4 NFC BL L	400 mA	± 3 %	< 3 %
OT WI 80/220...240/2A1 NFC BL L	600 mA	± 3 %	< 3 %

Product description	Output PSTLM	Output SVM	Nominal output power	Maximum output power
OT WI 35/220...240/1A0 NFC BL L	≤ 1	≤ 0.4	4...37 W	35 W
OT WI 50/220...240/1A4 NFC BL L	≤ 1	≤ 0.4	15...54 W	50 W
OT WI 80/220...240/2A1 NFC BL L	≤ 1	≤ 0.4	32...80 W	80 W

Product description	Galvanic isolation	Radio frequency	Galvanic isolation primary/secondary
OT WI 35/220...240/1A0 NFC BL L	SELV	2.4 GHz	SELV
OT WI 50/220...240/1A4 NFC BL L	SELV	2.4 GHz	SELV
OT WI 80/220...240/2A1 NFC BL L	SELV	2.4 GHz	SELV

Product family datasheet

Product description	Wireless protocol	Wireless range	Networked standby power	Power loss in stand-by mode
OT WI 35/220...240/1A0 NFC BL L	Qualified Bluetooth mesh	up to 10m	<0.20 W ¹⁾	<0.2 W
OT WI 50/220...240/1A4 NFC BL L	Qualified Bluetooth mesh	up to 10m	<0.20 W ¹⁾	<0.2 W
OT WI 80/220...240/2A1 NFC BL L	Qualified Bluetooth mesh	up to 10m	<0.20 W ¹⁾	<0.2 W

Product description	Protective conductor current
OT WI 35/220...240/1A0 NFC BL L	<0.5 mA
OT WI 50/220...240/1A4 NFC BL L	<0.5 mA
OT WI 80/220...240/2A1 NFC BL L	<0.5 mA

¹⁾ at 230 V, 50 Hz

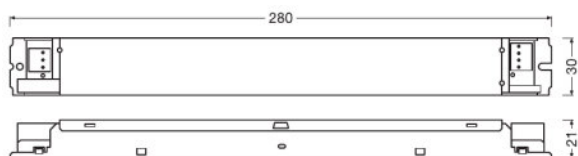
Dimensions & weight

Product description	Mounting hole spacing, length	Product weight	Cable cross-section, input side	Cable cross-section, output side	Wire preparation length, input side
OT WI 35/220...240/1A0 NFC BL L	270.0 mm	220.00 g	0.5...1.5 mm ²	0.5...1.5 mm ²	8.0...9.0 mm
OT WI 50/220...240/1A4 NFC BL L	270.0 mm	220.00 g	0.5...1.5 mm ²	0.5...1.5 mm ²	8.0...9.0 mm
OT WI 80/220...240/2A1 NFC BL L	350.0 mm	280.00 g	0.5...1.5 mm ²	0.5...1.5 mm ²	8.0...9.0 mm

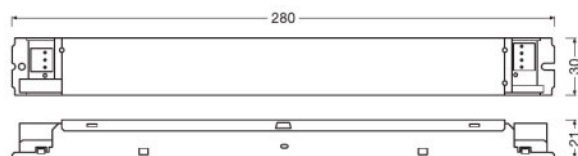
Product description	Wire preparation length, output side	Length	Width	Height
OT WI 35/220...240/1A0 NFC BL L	8.0...9.0 mm	280.0 mm	30.0 mm	21.0 mm
OT WI 50/220...240/1A4 NFC BL L	8.0...9.0 mm	280.0 mm	30.0 mm	21.0 mm
OT WI 80/220...240/2A1 NFC BL L	8.0...9.0 mm	360.0 mm	30.0 mm	21.0 mm

Product family datasheet

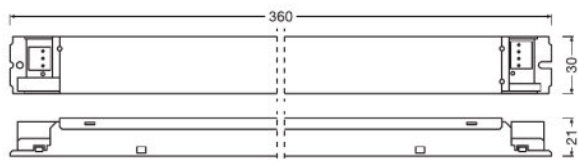
Product line drawing



OT WI 35/220...240/1A0 NFC BL L



OT WI 50/220...240/1A4 NFC BL L



OT WI 80/220...240/2A1 NFC BL L

Product family datasheet

Colors & materials

Product description	Casing material
OT WI 35/220...240/1A0 NFC BL L	Metal
OT WI 50/220...240/1A4 NFC BL L	Metal
OT WI 80/220...240/2A1 NFC BL 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
OT WI 35/220...240/1A0 NFC BL L	-25...+60 °C	75 °C	110 °C	-40...+85 °C
OT WI 50/220...240/1A4 NFC BL L	-25...+50 °C	75 °C	110 °C	-40...+85 °C
OT WI 80/220...240/2A1 NFC BL L	-25...+50 °C	80 °C	110 °C	-40...+85 °C

Product description	Permitted rel. humidity during operation
OT WI 35/220...240/1A0 NFC BL L	5...85 % ¹⁾
OT WI 50/220...240/1A4 NFC BL L	5...85 % ¹⁾
OT WI 80/220...240/2A1 NFC BL L	5...85 % ¹⁾

¹⁾ Maximum 56 days/year at 85 %

Lifespan

Product description	ECG lifetime
OT WI 35/220...240/1A0 NFC BL L	100000 / 50000 h
OT WI 50/220...240/1A4 NFC BL L	100000 / 50000 h
OT WI 80/220...240/2A1 NFC BL L	100000 / 50000 h

Additional product data

Product description	Encapsulated
OT WI 35/220...240/1A0 NFC BL L	No
OT WI 50/220...240/1A4 NFC BL L	No
OT WI 80/220...240/2A1 NFC BL L	No

Capabilities

Product description	Programming interface	Dimmable	Dimming interface	Dimming range
OT WI 35/220...240/1A0 NFC BL L	NFC	Yes	Qualified Bluetooth mesh	1...100 %
OT WI 50/220...240/1A4 NFC BL L	NFC	Yes	Qualified Bluetooth mesh	1...100 %
OT WI 80/220...240/2A1 NFC BL L	NFC	Yes	Qualified Bluetooth mesh	1...100 %

Product description	Dimming method	Overheating protection	Overload protection
OT WI 35/220...240/1A0 NFC BL L	Full analogue dimming	Automatic reversible	Automatic reversible

Product family datasheet

Product description	Dimming method	Overheating protection	Overload protection
OT WI 50/220...240/1A4 NFC BL L	Full analogue dimming	Automatic reversible	Automatic reversible
OT WI 80/220...240/2A1 NFC BL L	Full analogue dimming	Automatic reversible	Automatic reversible

Product description	Short-circuit protection	No-load proof	Intended for no-load operation	Max. cable length to lamp/LED module
OT WI 35/220...240/1A0 NFC BL L	Automatic reversible	Yes	No	2.0 m ¹⁾
OT WI 50/220...240/1A4 NFC BL L	Automatic reversible	Yes	No	2.0 m ¹⁾
OT WI 80/220...240/2A1 NFC BL L	Automatic reversible	Yes	No	2.0 m ¹⁾

Product description	Suitable for fixtures with prot. class	Suitable for emergency lighting	Type of connection, input side	Type of connection, output side
OT WI 35/220...240/1A0 NFC BL L	I	Yes	Push terminal	Push terminal
OT WI 50/220...240/1A4 NFC BL L	I	Yes	Push terminal	Push terminal
OT WI 80/220...240/2A1 NFC BL L	I	Yes	Push terminal	Push terminal

Product description	Reset	Number of channels	Constant lumen function
OT WI 35/220...240/1A0 NFC BL L	-	1	Yes
OT WI 50/220...240/1A4 NFC BL L	-	1	Yes
OT WI 80/220...240/2A1 NFC BL L	-	1	Yes

Product description	DALI-2 Energy Data	DALI-2 Diagnostic Data
OT WI 35/220...240/1A0 NFC BL L	No	No
OT WI 50/220...240/1A4 NFC BL L	No	No
OT WI 80/220...240/2A1 NFC BL L	No	No

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

Programming

Product description	Programming device	Box programming
OT WI 35/220...240/1A0 NFC BL L	DALI magic / NFC Scanner	Yes
OT WI 50/220...240/1A4 NFC BL L	DALI magic / NFC Scanner	Yes
OT WI 80/220...240/2A1 NFC BL L	DALI magic / NFC Scanner	Yes

Programmable features

Product description	Constant Lumen	OEM Key	Dim to Dark
OT WI 35/220...240/1A0 NFC BL L	Yes	Yes	Yes
OT WI 50/220...240/1A4 NFC BL L	Yes	Yes	Yes
OT WI 80/220...240/2A1 NFC BL L	Yes	Yes	Yes

Product description	Soft Switch Off	Configuration Lock	Emergency Mode
OT WI 35/220...240/1A0 NFC BL L	Yes	Yes	Yes
OT WI 50/220...240/1A4 NFC BL L	Yes	Yes	Yes
OT WI 80/220...240/2A1 NFC BL L	Yes	Yes	Yes

Product family datasheet

Product description	Driver Guard	DALI-2 Luminaire Data
OT WI 35/220...240/1A0 NFC BL L	Yes	No
OT WI 50/220...240/1A4 NFC BL L	Yes	No
OT WI 80/220...240/2A1 NFC BL L	Yes	No

Certificates & standards

Product description	Approval marks – approval	Standards	Type of protection
OT WI 35/220...240/1A0 NFC BL L	BIS / CCC / CE / EL / RCM / ENEC	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61547	IP20
OT WI 50/220...240/1A4 NFC BL L	BIS / CCC / CE / EL / RCM / ENEC	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61547	IP20
OT WI 80/220...240/2A1 NFC BL L	BIS / CCC / CE / EL / RCM / ENEC	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61547	IP20

Logistical data

Product description	Commodity code
OT WI 35/220...240/1A0 NFC BL L	85044095900
OT WI 50/220...240/1A4 NFC BL L	85044095900
OT WI 80/220...240/2A1 NFC BL L	85044095900

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
OT WI 35/220...240/1A0 NFC BL L	08-11-2023	4062172311205	Lead
OT WI 50/220...240/1A4 NFC BL L	08-11-2023	4062172311243	Lead
OT WI 80/220...240/2A1 NFC BL L	08-11-2023	4062172311281	Lead

Product description	CAS No. of substance 1	Safe Use Instruction	Declaration No. in SCIP database
OT WI 35/220...240/1A0 NFC BL L	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	9de04767-90fe-4525-8151-c1df8acd071d

Product family datasheet

Product description	CAS No. of substance 1	Safe Use Instruction	Declaration No. in SCIP database
OT WI 50/220...240/1A4 NFC BL L	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	edef9fa9-e2af-473e-b7d4-cff4336ccd85
OT WI 80/220...240/2A1 NFC BL L	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	e1d7aeae-d880-4098-8594-0d3e1466731e










Application advice

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

Sales and Technical Support

Sales and Technical Support www.osram.com

Download Data

File	
	User instruction OPTOTRONIC LED Power Supply
	CAD data OT WI 35 50 NFC CA BL L IGS 140722
	CAD data OT WI 35 50 NFC CA BL L STEP 140722
	CAD data 3-dim OT WI 35 50 NFC CA BL L CAD3PDF 140722
	CAD data PDF OT WI 35 50 NFC CA BL L CAD2PDF 140722
	CAD data OT WI 80 NFC CA BL L STEP 140722
	CAD data OT WI 80 NFC CA BL L IGS 140722
	CAD Data 2-dim OT WI 80 NFC CA BL L CAD2PDF 140722
	CAD data 3-dim OT WI 80 NFC CA BL L CAD3PDF 140722

Product family datasheet

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
4062172311205	OT WI 35/220...240/1A0 NFC BL L	Shipping carton box 20	303 mm x 159 mm x 105 mm	5.06 dm ³	4527.00 g
4062172311243	OT WI 50/220...240/1A4 NFC BL L	Shipping carton box 20	303 mm x 159 mm x 105 mm	5.06 dm ³	4527.00 g
4062172311281	OT WI 80/220...240/2A1 NFC BL L	Shipping carton box 20	385 mm x 160 mm x 100 mm	6.16 dm ³	5774.00 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.