

OPTOTRONIC Wireless Intelligent – Casambi 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 Casambi 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

- CRP Casambi Ready Product
- 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 CA L | 220...240 V | 0/50/60 Hz | 198...264 V | 176...276 V | NFC / Programmable |
| OT WI 50/220...240/1A4 NFC CA L | 220...240 V | 0/50/60 Hz | 198...264 V | 176...276 V | NFC / Programmable |
| OT WI 80/220...240/2A1 NFC CA 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 CA L | < 10 % | 0.61C...0.98 | 89 % | 3.0 W | \leq 18 A |
| OT WI 50/220...240/1A4 NFC CA L | < 10 % | 0.72C...0.98 | 90 % | 5.0 W | \leq 21 A |
| OT WI 80/220...240/2A1 NFC CA L | < 10 % | 0.83C...0.99 | 90 % | 8.0 W | \leq 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 (B) | Max. ECG no. on circuit breaker 16 A (C) | Max. ECG no. on circuit breaker 25 A (B) |
|---------------------------------|--|--|--|--|--|
| OT WI 35/220...240/1A0 NFC CA L | - | 20 | 31 | - | - |
| OT WI 50/220...240/1A4 NFC CA L | - | 12 | 20 | - | - |
| OT WI 80/220...240/2A1 NFC CA 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 CA L | 2 kV | 1 kV | 20...54 V | < 60 V | 200...1050 mA |
| OT WI 50/220...240/1A4 NFC CA L | 2 kV | 1 kV | 20...54 V | < 60 V | 400...1400 mA |
| OT WI 80/220...240/2A1 NFC CA 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 CA L | 200 mA | \pm 3 % | < 3 % |
| OT WI 50/220...240/1A4 NFC CA L | 400 mA | \pm 3 % | < 3 % |
| OT WI 80/220...240/2A1 NFC CA L | 600 mA | \pm 3 % | < 3 % |

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

| Product description | Galvanic isolation | Power loss in stand-by mode | Wireless range | Galvanic isolation primary/secondary |
|---------------------------------|--------------------|-----------------------------|----------------|--------------------------------------|
| OT WI 35/220...240/1A0 NFC CA L | SELV | <0.2 W | up to 10m | SELV |

Product family datasheet

| Product description | Galvanic isolation | Power loss in stand-by mode | Wireless range | Galvanic isolation primary/secondary |
|---------------------------------|--------------------|-----------------------------|----------------|--------------------------------------|
| OT WI 50/220...240/1A4 NFC CA L | SELV | <0.2 W | up to 10m | SELV |
| OT WI 80/220...240/2A1 NFC CA L | SELV | <0.2 W | up to 10m | SELV |

| Product description | Protective conductor current | Wireless protocol | Networked standby power |
|---------------------------------|------------------------------|-------------------|-------------------------|
| OT WI 35/220...240/1A0 NFC CA L | <0.5 mA | Casambi Evolution | <0.20 W ¹⁾ |
| OT WI 50/220...240/1A4 NFC CA L | <0.5 mA | Casambi Evolution | <0.20 W ¹⁾ |
| OT WI 80/220...240/2A1 NFC CA L | <0.5 mA | Casambi Evolution | <0.20 W ¹⁾ |

¹⁾ at 230 V, 50 Hz

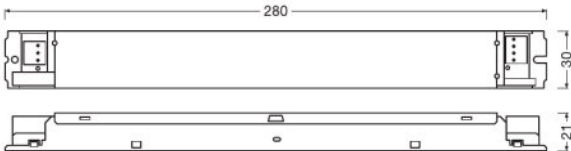
Dimensions & weight

| 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 CA 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 CA 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 CA L | 350.0 mm | 280.00 g | 0.5...1.5 mm ² | 0.5...1.5 mm ² | 8.0...9.0 mm |

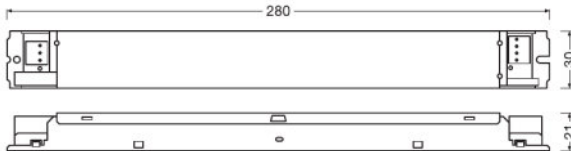
| Product description | Wire preparation length, output side | Mounting hole spacing, width | Height | Length | Width |
|---------------------------------|--------------------------------------|------------------------------|---------|----------|---------|
| OT WI 35/220...240/1A0 NFC CA L | 8.0...9.0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

Product family datasheet

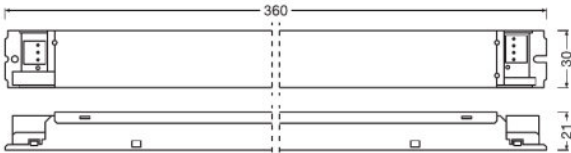
Product line drawing



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



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



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

Product family datasheet

Colors & materials

| Product description | Casing material |
|---------------------------------|-----------------|
| OT WI 35/220...240/1A0 NFC CA L | Metal |
| OT WI 50/220...240/1A4 NFC CA L | Metal |
| OT WI 80/220...240/2A1 NFC CA 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 CA L | -25...+60 °C | 75 °C | 110 °C | -40...+85 °C |
| OT WI 50/220...240/1A4 NFC CA L | -25...+50 °C | 75 °C | 110 °C | -40...+85 °C |
| OT WI 80/220...240/2A1 NFC CA 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 CA L | 5...85 % ¹⁾ |
| OT WI 50/220...240/1A4 NFC CA L | 5...85 % ¹⁾ |
| OT WI 80/220...240/2A1 NFC CA L | 5...85 % ¹⁾ |

¹⁾ Maximum 56 days/year at 85 %

Lifespan

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

Additional product data

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

Capabilities

| Product description | Programming interface | Dimmable | Dimming interface | Dimming range |
|---------------------------------|-----------------------|----------|-------------------|---------------|
| OT WI 35/220...240/1A0 NFC CA L | NFC | Yes | Casambi | 1...100 % |
| OT WI 50/220...240/1A4 NFC CA L | NFC | Yes | Casambi | 1...100 % |
| OT WI 80/220...240/2A1 NFC CA L | NFC | Yes | Casambi | 1...100 % |

| Product description | Dimming method | Overheating protection | Overload protection |
|---------------------------------|-----------------------|------------------------|----------------------|
| OT WI 35/220...240/1A0 NFC CA 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 CA L | Full analogue dimming | Automatic reversible | Automatic reversible |
| OT WI 80/220...240/2A1 NFC CA 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 CA L | Automatic reversible | Yes | No | 2.0 m ¹⁾ |
| OT WI 50/220...240/1A4 NFC CA L | Automatic reversible | Yes | No | 2.0 m ¹⁾ |
| OT WI 80/220...240/2A1 NFC CA 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 CA L | I | Yes | Push terminal | Push terminal |
| OT WI 50/220...240/1A4 NFC CA L | I | Yes | Push terminal | Push terminal |
| OT WI 80/220...240/2A1 NFC CA L | I | Yes | Push terminal | Push terminal |

| Product description | DALI-2 Diagnostic Data | Constant lumen function | DALI-2 Energy Data |
|---------------------------------|------------------------|-------------------------|--------------------|
| OT WI 35/220...240/1A0 NFC CA L | No | Yes | No |
| OT WI 50/220...240/1A4 NFC CA L | No | Yes | No |
| OT WI 80/220...240/2A1 NFC CA L | No | Yes | No |

| Product description | Suitable for through-wiring | Number of channels |
|---------------------------------|-----------------------------|--------------------|
| OT WI 35/220...240/1A0 NFC CA L | No | 1 |
| OT WI 50/220...240/1A4 NFC CA L | No | 1 |
| OT WI 80/220...240/2A1 NFC CA L | No | 1 |

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 CA L | DALI magic / NFC Scanner | Yes |
| OT WI 50/220...240/1A4 NFC CA L | DALI magic / NFC Scanner | Yes |
| OT WI 80/220...240/2A1 NFC CA L | DALI magic / NFC Scanner | Yes |

Programmable features

| Product description | DALI-2 Luminaire Data | OEM Key | Dim to Dark |
|---------------------------------|-----------------------|---------|-------------|
| OT WI 35/220...240/1A0 NFC CA L | No | Yes | Yes |
| OT WI 50/220...240/1A4 NFC CA L | No | Yes | Yes |
| OT WI 80/220...240/2A1 NFC CA L | No | Yes | Yes |

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

Product family datasheet

| Product description | Driver Guard | Constant Lumen |
|---------------------------------|--------------|----------------|
| OT WI 35/220...240/1A0 NFC CA L | Yes | Yes |
| OT WI 50/220...240/1A4 NFC CA L | Yes | Yes |
| OT WI 80/220...240/2A1 NFC CA L | Yes | Yes |

Certificates & standards

| Product description | Approval marks – approval | Standards | Type of protection |
|---------------------------------|----------------------------------|--|--------------------|
| OT WI 35/220...240/1A0 NFC CA 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 CA 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 CA 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 CA L | 85044095900 |
| OT WI 50/220...240/1A4 NFC CA L | 85044095900 |
| OT WI 80/220...240/2A1 NFC CA 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 CA L | 08-11-2023 | 4062172311182 | Lead |
| OT WI 50/220...240/1A4 NFC CA L | 08-11-2023 | 4062172311229 | Lead |
| OT WI 80/220...240/2A1 NFC CA L | 08-11-2023 | 4062172311267 | Lead |

| Product description | CAS No. of substance 1 | Safe Use Instruction | Declaration No. in SCIP database |
|---------------------------------|------------------------|--|--------------------------------------|
| OT WI 35/220...240/1A0 NFC CA L | 7439-92-1 | The identification of the Candidate List substance is sufficient to allow safe use of the article. | 73e1ff53-5ae8-4913-8810-ca6f175b8f9d |

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 CA L | 7439-92-1 | The identification of the Candidate List substance is sufficient to allow safe use of the article. | 2253e4b0-ad30-4260-9b44-e53953ff6e39 |
| OT WI 80/220...240/2A1 NFC CA L | 7439-92-1 | The identification of the Candidate List substance is sufficient to allow safe use of the article. | 09949571-9efe-4dc7-9a7e-7e12c9d30ea8 |










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 |
|---------------|------------------------------------|------------------------------|--------------------------------------|----------------------|--------------|
| 4062172311182 | OT WI 35/220...240/1A0 NFC CA L | Shipping carton box 20 | 303 mm x 159 mm x 105 mm | 5.06 dm ³ | 4527.00 g |
| 4062172311229 | OT WI 50/220...240/1A4 NFC CA L | Shipping carton box 20 | 303 mm x 159 mm x 105 mm | 5.06 dm ³ | 4527.00 g |
| 4062172311267 | OT WI 80/220...240/2A1 NFC CA 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.