

## OPTOTRONIC Intelligent – DALI NFC (SELV)

Linear constant current LED driver – Dimmable



### Areas of application

- Linear lighting for office, education, industry, storage areas and retail
- Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
- Suitable for luminaires of protection class I

### Product family benefits

- Fully programmable via software (DALI Interface, NFC)
- Advanced luminaire/driver data (power, energy, operating hours...) for analytics
- DALI-2 certified incl. Parts 251, 252, 253
- Lifetime: up to 100,000 h (temperature at  $T_C = 65\text{ °C}$ , max. 10 % failure rate)
- High-quality dimming of 1...100 % by amplitude dimming
- Higher quality of light thanks to < 3% output ripple current
- Very high efficiency
- Very low standby power consumption: < 0.15 W \*
- Fulfill safety requirement due to overload, overtemperature, Hot Plug protection

## Product family datasheet

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### Product family features

- Line frequency: 0 Hz | 50 Hz | 60 Hz
- Versatile DALI window driver up to 50 W due to flexible output characteristic
- Supply voltage: 220...240 V
- Available with output current range: up to 1,400 mA
- Constant Lumen Output (CLO)
- Integrated customizable thermal management (Driver Guard)

## Product family datasheet

### Technical data

#### Electrical data

| Product description             | Nominal input voltage | Mains frequency | Input voltage AC | Input voltage DC | Current set               |
|---------------------------------|-----------------------|-----------------|------------------|------------------|---------------------------|
| OTi DALI 25/220...240/700 NFC L | 220...240 V           | 0/50/60 Hz      | 198...264 V      | 176...276 V      | DALI / NFC / Programmable |
| OTi DALI 35/220...240/1A0 NFC L | 220...240 V           | 0/50/60 Hz      | 198...264 V      | 176...276 V      | DALI / NFC / Programmable |
| OTi DALI 50/220...240/1A4 NFC L | 220...240 V           | 0/50/60 Hz      | 198...264 V      | 176...276 V      | DALI / NFC / Programmable |
| OTi DALI 80/220...240/2A1 NFC L | 220...240 V           | 0/50/60 Hz      | 198...264 V      | 176...276 V      | DALI / NFC / Programmable |

| Product description             | Total harmonic distortion | Power factor $\lambda$ | Efficiency in full-load | Device power loss | Inrush current |
|---------------------------------|---------------------------|------------------------|-------------------------|-------------------|----------------|
| OTi DALI 25/220...240/700 NFC L | $\leq 10 \%$              | 042C...097             | 89 % <sup>1)</sup>      | 2.0 W             | $\leq 20$ A    |
| OTi DALI 35/220...240/1A0 NFC L | $\leq 10 \%$              | 061C...098             | 89 % <sup>1)</sup>      | 3.0 W             | $\leq 20$ A    |
| OTi DALI 50/220...240/1A4 NFC L | $\leq 10 \%$              | 072C...098             | 89 % <sup>1)</sup>      | 5.0 W             | $\leq 20$ A    |
| OTi DALI 80/220...240/2A1 NFC L | $\leq 10 \%$              | 083C...099             | 91 % <sup>1)</sup>      | 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) |
|---------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| OTi DALI 25/220...240/700 NFC L | -                                        | 14                                       | 24                                       | -                                        | -                                        |
| OTi DALI 35/220...240/1A0 NFC L | -                                        | 14                                       | 24                                       | -                                        | -                                        |
| OTi DALI 50/220...240/1A4 NFC L | -                                        | 12                                       | 20                                       | -                                        | -                                        |
| OTi DALI 80/220...240/2A1 NFC L | -                                        | 8                                        | 13                                       | -                                        | -                                        |

| Product description             | Surge capability (L/N-Ground) | Surge capability (L-N) | Nominal output voltage | U-OUT (working voltage) | Nominal output current |
|---------------------------------|-------------------------------|------------------------|------------------------|-------------------------|------------------------|
| OTi DALI 25/220...240/700 NFC L | 2 kV                          | 1 kV                   | 15...54 V              | < 60 V                  | 100...700 mA           |
| OTi DALI 35/220...240/1A0 NFC L | 2 kV                          | 1 kV                   | 15...54 V              | < 60 V                  | 200...1050 mA          |
| OTi DALI 50/220...240/1A4 NFC L | 2 kV                          | 1 kV                   | 15...54 V              | < 60 V                  | 400...1400 mA          |
| OTi DALI 80/220...240/2A1 NFC 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) |
|---------------------------------|------------------------|--------------------------|--------------------------------|
| OTi DALI 25/220...240/700 NFC L | 180 mA                 | $\pm 3 \%$               | $\leq 3 \%$                    |
| OTi DALI 35/220...240/1A0 NFC L | 350 mA                 | $\pm 3 \%$               | $\leq 3 \%$                    |
| OTi DALI 50/220...240/1A4 NFC L | 600 mA                 | $\pm 3 \%$               | $\leq 3 \%$                    |
| OTi DALI 80/220...240/2A1 NFC L | 600 mA                 | $\pm 3 \%$               | $\leq 3 \%$                    |

## Product family datasheet

| Product description             | Output PSTLM | Output SVM | Nominal output power | Maximum output power |
|---------------------------------|--------------|------------|----------------------|----------------------|
| OTi DALI 25/220...240/700 NFC L | ≤1           | ≤0.4       | 2...28 W             | 28 W                 |
| OTi DALI 35/220...240/1A0 NFC L | ≤1           | ≤0.4       | 4...37 W             | 37 W                 |
| OTi DALI 50/220...240/1A4 NFC L | ≤1           | ≤0.4       | 12...54 W            | 54 W                 |
| OTi DALI 80/220...240/2A1 NFC L | ≤1           | ≤0.4       | 32...80 W            | 80 W                 |

| Product description             | Galvanic isolation | Power loss in stand-by mode | Networked standby power |
|---------------------------------|--------------------|-----------------------------|-------------------------|
| OTi DALI 25/220...240/700 NFC L | SELV               | ≤0.15 W                     |                         |
| OTi DALI 35/220...240/1A0 NFC L | SELV               | ≤0.15 W                     |                         |
| OTi DALI 50/220...240/1A4 NFC L | SELV               | ≤0.15 W                     |                         |
| OTi DALI 80/220...240/2A1 NFC L | SELV               | ≤0.15 W                     | ≤0.19 W <sup>1)</sup>   |

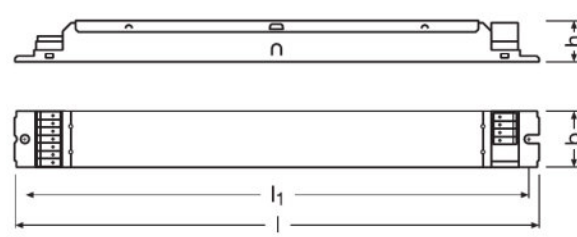
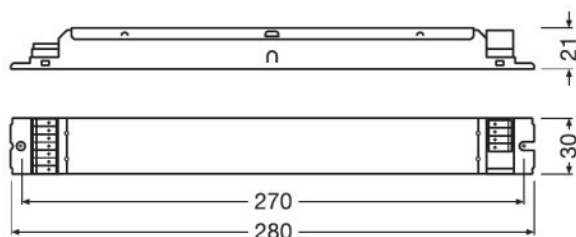
<sup>1)</sup> at 230 V, 50 Hz

### 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 |
|---------------------------------|-------------------------------|----------------|---------------------------------|----------------------------------|-------------------------------------|
| OTi DALI 25/220...240/700 NFC L | 270.0 mm                      | 20900 g        | 0.5...1.5 mm <sup>2</sup>       | 0.5...1.5 mm <sup>2</sup>        | 8.0...9.0 mm                        |
| OTi DALI 35/220...240/1A0 NFC L | 270.0 mm                      | 20900 g        | 0.5...1.5 mm <sup>2</sup>       | 0.5...1.5 mm <sup>2</sup>        | 8.0...9.0 mm                        |
| OTi DALI 50/220...240/1A4 NFC L | 270.0 mm                      | 20900 g        | 0.5...1.5 mm <sup>2</sup>       | 0.5...1.5 mm <sup>2</sup>        | 8.0...9.0 mm                        |
| OTi DALI 80/220...240/2A1 NFC L | 350.0 mm                      | 27000 g        | 0.5...1.5 mm <sup>2</sup>       | 0.5...1.5 mm <sup>2</sup>        | 8.0...9.0 mm                        |

| Product description             | Wire preparation length, output side | Width  | Length  | Height |
|---------------------------------|--------------------------------------|--------|---------|--------|
| OTi DALI 25/220...240/700 NFC L | 8.0...9.0 mm                         | 300 mm | 2800 mm | 210 mm |
| OTi DALI 35/220...240/1A0 NFC L | 8.0...9.0 mm                         | 300 mm | 2800 mm | 210 mm |
| OTi DALI 50/220...240/1A4 NFC L | 8.0...9.0 mm                         | 300 mm | 2800 mm | 210 mm |
| OTi DALI 80/220...240/2A1 NFC L | 8.0...9.0 mm                         | 300 mm | 3600 mm | 210 mm |

Product line drawing



OTi DALI 25/220...240/700 NFC L, OTi DALI 35/220...240/1A0 NFC L, OTi DALI 50/220...240/1A4 NFC L

OTi DALI 80/220...240/2A1 NFC L

Colors & materials

| Product description             | Casing material |
|---------------------------------|-----------------|
| OTi DALI 25/220...240/700 NFC L | Metal           |
| OTi DALI 35/220...240/1A0 NFC L | Metal           |
| OTi DALI 50/220...240/1A4 NFC L | Metal           |
| OTi DALI 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 DALI 25/220...240/700 NFC L | -25...+60 °C              | 75 °C                                | 110 °C                                   | -40...+85 °C                 |
| OTi DALI 35/220...240/1A0 NFC L | -25...+60 °C              | 75 °C                                | 110 °C                                   | -40...+85 °C                 |
| OTi DALI 50/220...240/1A4 NFC L | -25...+50 °C              | 75 °C                                | 110 °C                                   | -40...+85 °C                 |
| OTi DALI 80/220...240/2A1 NFC L | -25...+50 °C              | 75 °C                                | 110 °C                                   | -40...+85 °C                 |

| Product description             | Permitted rel. humidity during operation |
|---------------------------------|------------------------------------------|
| OTi DALI 25/220...240/700 NFC L | 5...85 % <sup>1)</sup>                   |
| OTi DALI 35/220...240/1A0 NFC L | 5...85 % <sup>1)</sup>                   |

## Product family datasheet

| Product description             | Permitted rel. humidity during operation |
|---------------------------------|------------------------------------------|
| OTi DALI 50/220...240/1A4 NFC L | 5...85 % <sup>1)</sup>                   |
| OTi DALI 80/220...240/2A1 NFC L | 5...85 % <sup>1)</sup>                   |

<sup>1)</sup> Maximum 56 days/year at 85 %

### Lifespan

| Product description             | ECG lifetime     |
|---------------------------------|------------------|
| OTi DALI 25/220...240/700 NFC L | 100000 / 50000 h |
| OTi DALI 35/220...240/1A0 NFC L | 100000 / 50000 h |
| OTi DALI 50/220...240/1A4 NFC L | 100000 / 50000 h |
| OTi DALI 80/220...240/2A1 NFC L | 100000 / 50000 h |

### Additional product data

| Product description             | Encapsulated |
|---------------------------------|--------------|
| OTi DALI 25/220...240/700 NFC L | No           |
| OTi DALI 35/220...240/1A0 NFC L | No           |
| OTi DALI 50/220...240/1A4 NFC L | No           |
| OTi DALI 80/220...240/2A1 NFC L | No           |

### Capabilities

| Product description             | Programming interface | Dimmable | Dimming interface                     | Dimming range |
|---------------------------------|-----------------------|----------|---------------------------------------|---------------|
| OTi DALI 25/220...240/700 NFC L | DALI, NFC             | Yes      | DALI-2 / Touch DIM / Touch DIM Sensor | 1...100 %     |
| OTi DALI 35/220...240/1A0 NFC L | DALI, NFC             | Yes      | DALI-2 / Touch DIM / Touch DIM Sensor | 1...100 %     |
| OTi DALI 50/220...240/1A4 NFC L | DALI, NFC             | Yes      | DALI-2 / Touch DIM / Touch DIM Sensor | 1...100 %     |
| OTi DALI 80/220...240/2A1 NFC L | DALI, NFC             | Yes      | DALI-2 / Touch DIM / Touch DIM Sensor | 1...100 %     |

| Product description             | Dimming method        | Overheating protection | Overload protection  |
|---------------------------------|-----------------------|------------------------|----------------------|
| OTi DALI 25/220...240/700 NFC L | Full analogue dimming | Automatic reversible   | Automatic reversible |
| OTi DALI 35/220...240/1A0 NFC L | Full analogue dimming | Automatic reversible   | Automatic reversible |
| OTi DALI 50/220...240/1A4 NFC L | Full analogue dimming | Automatic reversible   | Automatic reversible |
| OTi DALI 80/220...240/2A1 NFC 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 |
|---------------------------------|--------------------------|---------------|--------------------------------|--------------------------------------|
| OTi DALI 25/220...240/700 NFC L | Automatic reversible     | Yes           | No                             | 2.0 m <sup>1)</sup>                  |
| OTi DALI 35/220...240/1A0 NFC L | Automatic reversible     | Yes           | No                             | 2.0 m <sup>1)</sup>                  |
| OTi DALI 50/220...240/1A4 NFC L | Automatic reversible     | Yes           | No                             | 2.0 m <sup>1)</sup>                  |
| OTi DALI 80/220...240/2A1 NFC L | Automatic reversible     | Yes           | No                             | 2.0 m <sup>1)</sup>                  |

## Product family datasheet

| Product description             | Suitable for fixtures with prot. class | Suitable for emergency lighting | Type of connection, input side | Type of connection, output side |
|---------------------------------|----------------------------------------|---------------------------------|--------------------------------|---------------------------------|
| OTi DALI 25/220...240/700 NFC L | I                                      | Yes                             | Push terminal                  | Push terminal                   |
| OTi DALI 35/220...240/1A0 NFC L | I                                      | Yes                             | Push terminal                  | Push terminal                   |
| OTi DALI 50/220...240/1A4 NFC L | I                                      | Yes                             | Push terminal                  | Push terminal                   |
| OTi DALI 80/220...240/2A1 NFC L | I                                      | Yes                             | Push terminal                  | Push terminal                   |

| Product description             | DALI-2 Energy Data | DALI-2 Diagnostic Data | Number of channels |
|---------------------------------|--------------------|------------------------|--------------------|
| OTi DALI 25/220...240/700 NFC L | Yes                | Yes                    | 1                  |
| OTi DALI 35/220...240/1A0 NFC L | Yes                | Yes                    | 1                  |
| OTi DALI 50/220...240/1A4 NFC L | Yes                | Yes                    | 1                  |
| OTi DALI 80/220...240/2A1 NFC L | Yes                | Yes                    | 1                  |

| Product description             | Constant lumen function |
|---------------------------------|-------------------------|
| OTi DALI 25/220...240/700 NFC L | Programmable            |
| OTi DALI 35/220...240/1A0 NFC L | Programmable            |
| OTi DALI 50/220...240/1A4 NFC L | Programmable            |
| OTi DALI 80/220...240/2A1 NFC L |                         |

<sup>1)</sup> Output wires must be routed as close as possible to each other

### Programming

| Product description             | Programming device       | Box programming |
|---------------------------------|--------------------------|-----------------|
| OTi DALI 25/220...240/700 NFC L | DALI magic / NFC Scanner | Yes             |
| OTi DALI 35/220...240/1A0 NFC L | DALI magic / NFC Scanner | Yes             |
| OTi DALI 50/220...240/1A4 NFC L | DALI magic / NFC Scanner | Yes             |
| OTi DALI 80/220...240/2A1 NFC L | DALI magic / NFC Scanner |                 |

### Programmable features

| Product description             | DALI-2 Luminaire Data | TouchDIM + Sensor |
|---------------------------------|-----------------------|-------------------|
| OTi DALI 25/220...240/700 NFC L | Yes                   | Yes               |
| OTi DALI 35/220...240/1A0 NFC L | Yes                   | Yes               |
| OTi DALI 50/220...240/1A4 NFC L | Yes                   | Yes               |
| OTi DALI 80/220...240/2A1 NFC L | Yes                   |                   |

Certificates & standards

| Product description             | Approval marks – approval                  | Standards                                                                                                                                    | Type of protection |
|---------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| OTi DALI 25/220...240/700 NFC L | CE / EL / VDE-ENEC / EAC / 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 61347 | IP20               |
| OTi DALI 35/220...240/1A0 NFC L | CE / EL / VDE-ENEC / EAC / 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 61347 | IP20               |
| OTi DALI 50/220...240/1A4 NFC L | CE / EL / VDE-ENEC / EAC / 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 61347 | IP20               |
| OTi DALI 80/220...240/2A1 NFC L | CE / EL / VDE-ENEC / EAC / 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 61347 | IP20               |

Logistical data

| Product description             | Commodity code |
|---------------------------------|----------------|
| OTi DALI 25/220...240/700 NFC L | 85044083900    |
| OTi DALI 35/220...240/1A0 NFC L | 85044083900    |
| OTi DALI 50/220...240/1A4 NFC L | 85044083900    |
| OTi DALI 80/220...240/2A1 NFC L | 85044083900    |

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 DALI 25/220...240/700 NFC L | 21-04-2023          | 4062172074940              | Lead                       |
| OTi DALI 35/220...240/1A0 NFC L | 21-04-2023          | 4062172074964              | Lead                       |
| OTi DALI 50/220...240/1A4 NFC L | 21-04-2023          | 4062172074988              | Lead                       |
| OTi DALI 80/220...240/2A1 NFC L | 21-04-2023          | 4062172238656              | Lead                       |

Product family datasheet

| Product description             | CAS No. of substance 1 | Safe Use Instruction                                                                               | Declaration No. in SCIP database     |
|---------------------------------|------------------------|----------------------------------------------------------------------------------------------------|--------------------------------------|
| OTi DALI 25/220...240/700 NFC L | 7439-92-1              | The identification of the Candidate List substance is sufficient to allow safe use of the article. | e0e4bc0f-d1cf-4ca2-b0e2-658cdea5b58e |
| OTi DALI 35/220...240/1A0 NFC L | 7439-92-1              | The identification of the Candidate List substance is sufficient to allow safe use of the article. | b69841e5-6d04-44fe-9877-8bb334af0e7a |
| OTi DALI 50/220...240/1A4 NFC L | 7439-92-1              | The identification of the Candidate List substance is sufficient to allow safe use of the article. | 589fea0d-2309-4100-8b21-274fe23c079d |
| OTi DALI 80/220...240/2A1 NFC L | 7439-92-1              | The identification of the Candidate List substance is sufficient to allow safe use of the article. | 3097318f-8f14-4ecd-a064-9b2069aefa4c |

Application advice

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

Sales and Technical Support

— Sales and Technical Support [www.osram.com](http://www.osram.com)

Download Data

| File                                                                                |                                                                    |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------|
|  | User instruction<br>OPTOTRONIC LED Power Supply                    |
|  | Certificates<br>OTI DALI 25 NFC L EAT AM31196 191219               |
|  | Certificates<br>OTI DALI 25 NFC L INO AM31196 191219               |
|  | Certificates<br>OTI DALI NFC L CB DE1 63040 100220                 |
|  | Certificates<br>OT ENEC 40038447 260623                            |
|  | Certificates<br>OT EMC 40044675 031022                             |
|  | Declarations of conformity<br>OTI DALI NFC L CE 4159050 110522     |
|  | Declarations of conformity<br>OTI DALI NFC L UK DoC 4281121 110522 |

## Product family datasheet

|                                                                                     |                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------|
|    | CAD data<br>OTI DALI NFC L IGS 030220                 |
|    | CAD data<br>OTI DALI NFC L STEP 030220                |
|    | CAD Data 2-dim<br>OTI DALI NFC L CAD2PDF 030220       |
|    | CAD data 3-dim<br>OTI DALI NFC L CAD3PDF 030220       |
|    | Certificates<br>OTI DALI 35 NFC L EAT AM31194 191219  |
|    | Certificates<br>OTI DALI 35 NFC L INO AM31194 191219  |
|    | Certificates<br>OTI DALI 50 NFC L EAT AM31195 191219. |
|    | Certificates<br>OTI DALI 50 NFC L INO AM31195 191219  |
|    | User instruction<br>OPTOTRONIC LED Power Supply       |
|    | Certificates<br>OT ENEC 40038085 010322               |
|  | CAD data<br>OTI DALI 80 NFC L IGS 271021              |
|  | CAD data<br>OTI DALI 80 NFC L STEP 271021             |
|  | CAD Data 2-dim<br>OTI DALI 80 NFC L CAD2PDF 271021    |
|  | CAD data 3-dim<br>OTI DALI 80 NFC L CAD3PDF 271021    |

### 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.

Product family datasheet

Logistical Data

| Product code  | Product description                | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Volume               | Gross weight |
|---------------|------------------------------------|------------------------------|--------------------------------------|----------------------|--------------|
| 4062172074940 | OTi DALI<br>25/220...240/700 NFC L | Shipping carton box<br>20    | 303 mm x 159 mm x 105 mm             | 5.06 dm <sup>3</sup> | 4307.00 g    |
| 4062172074964 | OTi DALI<br>35/220...240/1A0 NFC L | Shipping carton box<br>20    | 303 mm x 159 mm x 105 mm             | 5.06 dm <sup>3</sup> | 4307.00 g    |
| 4062172074988 | OTi DALI<br>50/220...240/1A4 NFC L | Shipping carton box<br>20    | 303 mm x 159 mm x 105 mm             | 5.06 dm <sup>3</sup> | 4307.00 g    |
| 4062172238656 | OTi DALI<br>80/220...240/2A1 NFC L | Shipping carton box<br>20    | 385 mm x 160 mm x 100 mm             | 6.16 dm <sup>3</sup> | 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.