

# PRODUCT DATASHEET

## SubstiTUBE T8 UN Pro Ultra Output 7.5 W/6500 K 600 mm

SubstiTUBE® PRO UO UN | LED tubes for electronic control gears (ECG), electromagnetic control gears (CCG) and mains, shatterproof



### Areas of application

- General illumination within ambient temperatures from -20...+45 °C
- Supermarkets and department stores
- Industry

### Product benefits

- No bending thanks to glass technology
- Shatter protection thanks to special PET coating
- Also suitable for operation at low temperatures
- High luminous flux for sophisticated lighting tasks
- Easy installation

### Product features

- T8 LED tube made of glass with G13 base
- Compatible with conventional and many common electronic control gears (see also compatibility list) and line voltage
- Low flicker according to EU 2019/2020
- Lamp tube made of glass with splinter protection e.g. for food industry applications
- Mercury-free and RoHS compliant



- Type of protection: IP20
- Lifetime: up to 60,000 h

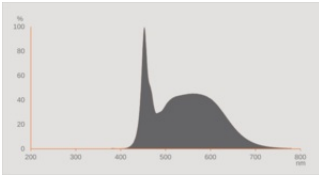
## TECHNICAL DATA

### Electrical data

|                                                                  |             |
|------------------------------------------------------------------|-------------|
| Nominal wattage                                                  | 7.5 W       |
| Construction wattage                                             | 7.50 W      |
| Nominal voltage                                                  | 220...240 V |
| Claimed equiv. conventional lamp power                           | 18 W        |
| Nominal current                                                  | 45 mA       |
| Type of current                                                  | AC          |
| Inrush current                                                   | 10 A        |
| Operating frequency                                              | 50/60 Hz    |
| Mains frequency                                                  | 50/60 Hz    |
| Max. lamp no. on circuit break. 10 A (B)                         | 150         |
| Max. lamp no. on circuit break. B10 A - CCG without compensation | 150         |
| Max. lamp no. on circuit break. B10 A - CCG with compensation    | 30          |
| Max. lamp no. on circuit break. 16 A (B)                         | 240         |
| Max. lamp no. on circuit break. B16 A - CCG without compensation | 240         |
| Max. lamp no. on circuit break. B16 A - CCG with compensation    | 40          |
| Total harmonic distortion                                        | < 20 %      |
| Power factor $\lambda$                                           | > 0.80      |

### Photometrical data

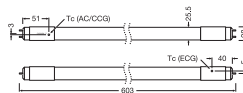
|                                         |                           |
|-----------------------------------------|---------------------------|
| Luminous flux                           | 1100 lm                   |
| Luminous efficacy                       | 146 lm/W                  |
| Lumen main.fact.at end of nom.life time | 0.70                      |
| Light color (designation)               | Cool Daylight             |
| Color temperature                       | 6500 K                    |
| Color rendering index Ra                | 83                        |
| Light color                             | 865                       |
| Standard deviation of color matching    | $\leq 5$ sdc <sub>m</sub> |
| Flickering metric (Pst LM)              | 1.0                       |
| Stroboscope effect metric (SVM)         | 0.4                       |



### Light technical data

|                                    |          |
|------------------------------------|----------|
| Beam angle                         | 190 °    |
| Warm-up time (60 %)                | < 2.00 s |
| Starting time                      | < 0.5 s  |
| Rated beam angle (half peak value) | 190.00 ° |

### Dimensions & Weight



|                  |           |
|------------------|-----------|
| Overall length   | 603.00 mm |
| Diameter         | 27.80 mm  |
| Tube diameter    | 25,5 mm   |
| Maximum diameter | 28 mm     |
| Product weight   | 131.00 g  |

### Temperatures & operating conditions

|                                      |                     |
|--------------------------------------|---------------------|
| Ambient temperature range            | -20...+45 °C        |
| Maximum temperature at tc test point | 59 °C <sup>1)</sup> |

<sup>1)</sup> at CCG+Mains operation, ECG operation: 69°C

### Lifespan

|                                     |         |
|-------------------------------------|---------|
| Lifespan                            | 60000 h |
| Number of switching cycles          | 200000  |
| Lumen maintenance at end of serv    | 0.70    |
| Rated lamp survival factor at 6,000 | ≥ 0.90  |

### Additional product data

|                             |        |
|-----------------------------|--------|
| Base (standard designation) | G13    |
| Mercury content             | 0.0 mg |
| Mercury-free                | Yes    |

### Capabilities

|          |    |
|----------|----|
| Dimmable | No |
|----------|----|

### Certificates & Standards

|                                              |                 |
|----------------------------------------------|-----------------|
| Energy efficiency class                      | D <sup>1)</sup> |
| Energy consumption                           | 8.00 kWh/1000h  |
| Type of protection                           | IP20            |
| Standards                                    | CE              |
| Photobiological safety group acc. to EN62778 | RG0             |

<sup>1)</sup> Energy efficiency class (EEC) on a scale of A++ (highest efficiency) to E (lowest efficiency)

### Country-specific categorizations

|                 |                 |
|-----------------|-----------------|
| Order reference | LEDTUBE T8 UN P |
|-----------------|-----------------|

### LOGISTICAL DATA

|                              |              |
|------------------------------|--------------|
| Temperature range at storage | -20...+80 °C |
|------------------------------|--------------|

### Energy labelling regulation data acc EU 2019/2015






|                                                     |              |
|-----------------------------------------------------|--------------|
| Lighting technology used                            | LED          |
| Non-directional or directional                      | NDLS         |
| Mains or non-mains                                  | MLS          |
| Light source cap-type (or other electric interface) | G13          |
| Connected light source (CLS)                        | No           |
| Color-tuneable light source                         | No           |
| Envelope                                            | No           |
| High luminance light source                         | No           |
| Anti-glare shield                                   | No           |
| Correlated colour temperature type                  | SINGLE_VALUE |
| Claim of equivalent power                           | No           |
| Length                                              | 603.00 mm    |
| Height                                              | 27.80 mm     |
| Width                                               | 27.80 mm     |

|                                                      |                 |
|------------------------------------------------------|-----------------|
| Chromaticity coordinate x                            | 0.312           |
| Chromaticity coordinate y                            | 0.328           |
| Beam angle                                           | SPHERE_360      |
| Survival factor                                      | 0.90            |
| Displacement factor                                  | 0.90            |
| LED light source replaces a fluorescent light source | not applicable  |
| EPREL ID                                             | 519434          |
| Model number                                         | AC33871,AC33871 |

### Safety advice

- Operation in outdoor applications in suitable damp-proof luminaires possible according to data sheet and installation instruction.
- The operating temperature range of LED tube is restricted. In case of doubt regarding suitability of the application please measure Tc max temperature on the product prior to installation.
- For operation of LEDTUBE T8 UN with a conventional control gear, the existing starter must be exchanged with the including LED starter in the LED tube packaging.

### DOWNLOAD DATA

| DOWNLOAD DATA                                                                       |                                                               |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------|
|   | User instruction<br>SubstiTUBE T8 Universal LED tube          |
|   | Installation guide<br>SubstiTUBE® T8 T5                       |
|   | Installation guide<br>Installationsanleitung SubstiTUBE T8 T5 |
|  | IES file (IES)<br>ST8PROU 0.6M 7,5W 865 UN OSRAM              |
|  | LDT file (Eulumdat)<br>ST8PROU 0.6M 7,5W 865 UN OSRAM         |

### LOGISTICAL DATA

| Product code  | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume                |
|---------------|------------------------------|--------------------------------------|--------------|-----------------------|
| 4058075546790 | Sleeve<br>1                  | 695 mm x 29 mm x 29 mm               | 149.00 g     | 0.58 dm <sup>3</sup>  |
| 4058075546806 | Shipping box<br>10           | 742 mm x 210 mm x 115 mm             | 1922.00 g    | 17.92 dm <sup>3</sup> |

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.

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## DISCLAIMER

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