

# PRODUCT DATASHEET

## SubstiTUBE T8 UN Pro Ultra Output 7.5 W/4000 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

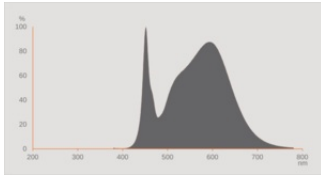
## TECHNICAL DATA

### 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

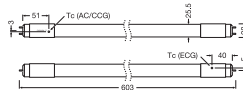
Luminous flux	1100 lm
Luminous efficacy	146 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	Cool White
Color temperature	4000 K
Color rendering index Ra	83
Light color	840
Standard deviation of color matching	$\leq 5$ sdc <sub>m</sub>
Flickering metric (Pst LM)	1.0
Stroboscope 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
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## Certificates &amp; 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
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## LOGISTICAL DATA

Temperature range at storage	-20...+80 °C
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## 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	0.381
Chromaticity coordinate y	0.379
Beam angle	SPHERE_360
Survival factor	0.90
Displacement factor	0.90
LED light source replaces a fluorescent light source	not applicable
EPREL ID	519433
Model number	AC33870,AC33870

### 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 SubstiTUBE T8 Universal LED tube
	Installation guide SubstiTUBE® T8 T5
	Installation guide Installationsanleitung SubstiTUBE T8 T5
	IES file (IES) ST8PROU 0.6M 7,5W 840 UN OSRAM
	LDT file (Eulumdat) ST8PROU 0.6M 7,5W 840 UN OSRAM

### LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075546776	Sleeve 1	695 mm x 29 mm x 29 mm	149.00 g	0.58 dm <sup>3</sup>
4058075546783	Shipping box 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.

## DISCLAIMER

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