

## PRODUCT DATASHEET

# SubstiTUBE T5 HF HE21 10 W/3000 K 863.00 mm

SubstiTUBE TUBE T5 HF | LED tubes for electronic high frequency control gears



### Areas of application

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

### Product benefits

- No bending thanks to glass technology
- Quick, simple and safe replacement without rewiring
- High luminous flux for sophisticated lighting tasks
- Also suitable for operation at low temperatures

### Product features

- Retrofit replacement of existing T5 lamps on HF ballast installations
- Lamp tube made of glass with splinter protection e.g. for food industry applications
- High color consistency:  $\leq 5$  sdcm



- Lifetime up to 50,000 h
- Low flicker according to EU 2019-2020 ( $SVM \leq 0.4$  /  $PstLM \leq 1$ )
- Type of protection: IP20
- Compatible with many common electronic control gears (see also compatibility list)

TECHNICAL DATA

Electrical data

Nominal wattage	10 W
Construction wattage	10.00 W
Nominal voltage	50...80 V
Operating mode	HF (ECG mode)
Nominal current	119 mA
Type of current	AC
Inrush current	20 A
Operating frequency	25...70 kHz
Mains frequency	25...70 kHz
Total harmonic distortion	< 20 %
Power factor $\lambda$	> 0.80

Photometrical data

Luminous flux	1350 lm
Luminous efficacy	135 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	Warm White
Color temperature	3000 K
Color rendering index Ra	83
Light color	830
Standard deviation of color matching	≤5 sdcm

Light technical data

Beam angle	190 °
Warm-up time (60 %)	< 2.00 s
Starting time	< 0.5 s

Dimensions & Weight



Overall length	863.00 mm
----------------	-----------

Diameter	17.00 mm
Maximum diameter	17 mm
Product weight	121.00 g

### Temperatures & operating conditions

Ambient temperature range	-20...+45 °C
Maximum temperature at tc test point	62 °C

### Lifespan

Number of switching cycles	200000
Lumen maintenance at end of service lifetime	0.70
Rated lamp survival factor at 6,000 h	≥ 0.90

### Additional product data

Base (standard designation)	G5
Mercury content	0.0 mg
Design / version	Frosted

### Capabilities

Dimmable	No
----------	----

### Certificates & Standards

Energy efficiency class	E
Energy consumption	11.00 kWh/1000h
Type of protection	IP20
Standards	CE
Photobiological safety group acc. to EN62778	RG0

### Country-specific categorizations

Order reference	RL-T5 21 10W/83
-----------------	-----------------

### LOGISTICAL DATA

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

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

Light source cap-type (or other electric interface)	G5
Correlated colour temperature type	SINGLE_VALUE
Length	863.00 mm

Height	17.00 mm
Width	17.00 mm
EPREL ID	642872

### 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 temperature on the product prior to installation.
- All electrical connections must be made by a qualified person.
- Not suitable for emergency lighting.

### LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4008597196218	Sleeve 1	865 mm x 20 mm x 24 mm	136.00 g	0.42 dm <sup>3</sup>
4008597596216	Shipping box 10	918 mm x 153 mm x 80 mm	1701.00 g	11.24 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.

### References / Links

- For current information see [www.ledvance.com/osram-substitute](http://www.ledvance.com/osram-substitute)

### Legal advice

- When used to replace a T5 fluorescent lamp the total energy efficiency and light distribution depends on the design of the lighting system.

### DISCLAIMER

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