

## PRODUCT DATASHEET

# SubstiTUBE T5 HF HE21 10 W/6500 K 849 mm

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



### Areas of application

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

### Product benefits

- No bending thanks to glass technology
- Quick, simple and safe replacement without rewiring
- High luminous flux for sophisticated lighting tasks

### 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
- Type of protection: IP20
- Compatible with many common electronic control gears (see also compatibility list)



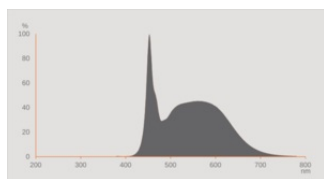
**TECHNICAL DATA**

**Electrical data**

Nominal wattage	10 W
Construction wattage	10.00 W
Nominal voltage	50...80 V
Claimed equiv. conventional lamp power	21 W
Nominal current	119 mA
Type of current	AC
Inrush current	20 A
Operating frequency	20...75 kHz
Mains frequency	20...75 kHz
Total harmonic distortion	< 20 %
Power factor $\lambda$	> 0.80

**Photometrical data**

Luminous flux	1500 lm
Luminous efficacy	150 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	$\leq 5$ sdcm



**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 °
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### Dimensions & Weight



Overall length	849.00 mm
Diameter	17.00 mm
Tube diameter	16 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

Lifespan	50000 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)	G5
Mercury content	0.0 mg
Mercury-free	Yes
Design / version	Frosted

### Capabilities

Dimmable	No
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### Certificates & Standards

Energy efficiency class	D 1)
Energy consumption	11.00 kWh/1000h
Type of protection	IP20
Standards	CE



Photobiological safety group acc. to EN62778	RG0
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1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (lowest efficiency)

### Country-specific categorizations

Order reference	LEDTUBE T5 HF H
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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	NMLS
Light source cap-type (or other electric interface)	G5
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	849.00 mm
Height	17.00 mm
Width	17.00 mm
Chromaticity coordinate x	0.312
Chromaticity coordinate y	0.328
Beam angle correspondence	SPHERE_360
Survival factor	0.90
Displacement factor	0.90
LED light source replaces a fluorescent light source	No

### 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.

DOWNLOAD DATA

DOWNLOAD DATA	
	User instruction
	Installation guide
	Installation guide
	IES file (IES)
	LDT file (Eulumdat)

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075543294	Shipping box 10	918 mm x 153 mm x 80 mm	1704.00 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.

DISCLAIMER

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

