

# PRODUCT DATASHEET SubstiTUBE T8 HF Pro Ultra Output 15 W/6500 K 1200 mm

SubstiTUBE T8 HF PRO ULTRA OUTPUT | LED tubes for electronic high frequency control gears (ECG), shatterproof



#### Areas of application

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

### **Product benefits**

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

#### **Product features**

- T8 LED tube made of glass with G13 base
- 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





PRODUCT DATASHEET - Compatible with many common electronic control gears (see also compatibility list)

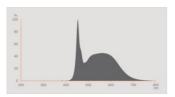
## **TECHNICAL DATA**

## Electrical data

Nominal wattage	15 W
Construction wattage	15.00 W
Nominal voltage	4070 V
Nominal current	85 mA
Type of current	AC
Inrush current	20 A
Operating frequency	2075 kHz
Mains frequency	2075 kHz
Total harmonic distortion	< 20 %
Power factor $\lambda$	> 0.90

## Photometrical data

Luminous flux	2400 lm
Luminous efficacy	160 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	≤5 sdcm
Flickering metric (Pst LM)	<b>`1</b>
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	1212.50 mm
Diameter	27.80 mm
Tube diameter	25,5 mm
Maximum diameter	28 mm
Product weight	200.00 g

# Temperatures & operating conditions

Ambient temperature range	-20+45 °C
Maximum temperature at tc test point	68 °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

Dimmahla	Na
Dimmable	No

## Certificates & Standards

Energy efficiency class	D 1)
Energy consumption	17.00 kWh/1000h
Type of protection	IP20
Standards	CE

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Photobiological safety group acc. to EN62778 RG	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
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	NMLS	
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	1212.50 mm	
Height	27.80 mm	
Width	27.80 mm	
Chromaticity coordinate x	0.312	
Chromaticity coordinate y	0.328	
R9 Colour rendering index	0.00	
Beam angle correspondence	SPHERE_360	
Survival factor	0.90	
Displacement factor	0.90	
LED light source replaces a fluorescent light source	No	
EPREL ID	519427	

AC33864

## Safety advice

Model number

- Not suitable for operation with low-loss and conventional control gears and main voltage.

- 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**

	Documents and certificates
POF	User instruction
POF	Installation guide
POF	Declarations Of Conformity CE
	Photometric and lighting design files
	IES file (IES)
	LDT file (Eulumdat)
	LDC typ polar
	Spectral power distribution

#### **LOGISTICAL DATA**

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075545038	Sleeve 1	1,220 mm x 31 mm x 31 mm	223.00 g	1.17 dm³
4058075545045	Shipping box 10	1,272 mm x 210 mm x 115 mm	2863.00 g	30.72 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.