PRODUCT DATASHEET
SubstiTUBE T5 HF HE21 10 W/4000 K 849 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: ≤ 5 sdcm

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

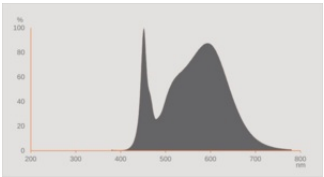
TECHNICAL DATA

Electrical data

Nominal wattage	10 W
Construction wattage	10.00 W
Nominal voltage	50…80 V
Operating mode	ECG
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 λ	> 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 White
Color temperature	4000 K
Color rendering index Ra	83
Light color	840
Standard deviation of color matching	≤5 sdcm
Flickering metric (Pst LM)	1
Stroboscope effect metric (SVM)	0,4

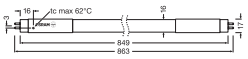


EPREL data spectral diagram PROF LEDr 4000K

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
Length with base excl. base pins/connection	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 L70/B50 at 25 °C	50000 h
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
Mercury-free	Yes
Design / version	Frosted

Capabilities

Dimmable	No

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

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

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)	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
Standby power	0 W
Networked standby power for CLS	0 W
Claim of equivalent power	No
Length	863.00 mm
Height	17.00 mm
Width	17.00 mm
Chromaticity coordinate x	0.381
Chromaticity coordinate y	0.379
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	642873
Model number	AC35158

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.

DOWNLOAD DATA

	Documents and certificates	Document name
PDF	User instruction / safety instructions	SubstiTUBE T5 HF (ECG) LED TUBE
PDF	Extended installation guide	SubstiTUBE® T8 T5
PDF	Declarations of conformity	LEDTUBE T5 HF
PDF	Declarations of conformity UKCA	LEDTUBE T8 and T5

	Photometric and lighting design files	Document name
IES	IES file (IES)	ST5HE21 0.9M 10W 840 HF G5 OSRAM
LDT	LDT file (Eulumdat)	ST5HE21 0.9M 10W 840 HF G5 OSRAM
	Light distribution curve type polar	ST5HE21 0.9M 10W 840 HF G5 OSRAM
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 4000K

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075543263	Sleeve 1	865 mm x 20 mm x 24 mm	136.00 g	0.42 dm^3
4058075543270	Shipping box 10	918 mm x 153 mm x 80 mm	1704.00 g	11.24 dm^3

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-substitube

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.