

# PRODUCT DATASHEET LED TUBE T5 HF HE21 P 849 mm 10W 830

LED TUBE T5 HF P | LED tubes for electronic high frequency control gear (ECG), shatterproof



## 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  $\leq$  0,4 / PstLM  $\leq$  1)
- Type of protection: IP20
- Compatible with many common electronic control gears (see also compatibility list)



### **TECHNICAL DATA**

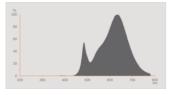
## Electrical data

Nominal wattage	10 W
Construction wattage	10.00 W
Nominal voltage	5090 V
Operating mode	ECG <sup>1)</sup>
Nominal current	193 mA
Type of current	AC
Inrush current	12 A
Operating frequency	2575 kHz
Mains frequency	2575 kHz
Max. lamp no. on circuit break. 10 A (B)	17
Max. lamp no. on circuit break. 16 A (B)	28
Total harmonic distortion	15 %
Power factor $\lambda$	> 0.80

1) Check ECG compatibility at ledvance.com/compatibility

### 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	80
Light color	830
Standard deviation of color matching	≤5 sdcm
Flickering metric (Pst LM)	1
Stroboscope effect metric (SVM)	0.4



## Light technical data

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

# **Dimensions & Weight**

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Overall length	863.00 mm
Length with base excl. base pins/connection	849.00 mm
Diameter	18.50 mm
Tube diameter	16 mm
Maximum diameter	19 mm
Product weight	106.00 g

## Temperatures & operating conditions

Ambient temperature range	-20+45 °C
Maximum temperature at tc test point	70 °C
Performance temp. acc. to IEC 62717	60 °C <sup>1)</sup>

## 1) Tp rated. Tp point coincides with Tc point - marked on device

## 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
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## Certificates & Standards

Energy efficiency class	E <sup>1)</sup>
Energy consumption	10.00 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
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## Energy labelling regulation data acc EU 2019/2015

Lighting technology usedLEDNon-directional or directionalNDLSMains or non-mainsNMLSLight source cap-type (or other electric interface)G5Connected light source (CLS)NoColor-tuneable light sourceNoEnvelopeNoAnti-glare shieldNoCorrelated colour temperature typeSINGLE_VALUEStandby powerOWClain of equivalent powerNoClain of equivalent powerNoHeightSinomHeightSinomChromaticity coordinate x0.434Chromaticity coordinate y0.430		
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     OW       Claim of equivalent power     No       Length     Mo       Height     SinSCLE_VALUE       Standby power for CLS     OW       Claim of equivalent power     No       Height     SinSCLE       Mains or for CLS     SinSCLE       Mather of equivalent power     No       Length     SinSCLE       More     SinSCLE       More     SinSCLE       Length     SinSCLE       Height     SinSCLE       Maint     SinSCLE       Lower     SinSCLE       Light     SinSCLE       Light     SinSCLE       Light     SinSCLE	Lighting technology used	LED
Light source cap-type (or other electric interface)G5Connected light source (CLS)NoColor-tuneable light sourceNoEnvelopeNoHigh luminance light sourceNoAnti-glare shieldNoCorrelated colour temperature typeSINGLE_VALUEStandby powerOWNetworked standby power for CLSOWLiength863.00 mmHight Liength18.50 mmWidth18.50 mmKindth0.434	Non-directional or directional	NDLS
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Anti-glare shieldNoCorrelated colour temperature typeSINGLE_VALUEStandby power0 WNetworked standby power for CLS0 WClaim of equivalent powerNoLength863.00 mmHeight18.50 mmWidth0.434	Envelope	No
Correlated colour temperature typeSINGLE_VALUEStandby power0 WNetworked standby power for CLS0 WClaim of equivalent powerNoLength863.00 mmHeight18.50 mmWidth18.50 mmChromaticity coordinate x0.434	High luminance light source	No
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Claim of equivalent power   No     Length   863.00 mm     Height   18.50 mm     Width   18.50 mm     Chromaticity coordinate x   0.434	Standby power	0 W
Length 863.00 mm   Height 18.50 mm   Width 18.50 mm   Chromaticity coordinate x 0.434	Networked standby power for CLS	0 W
Height 18.50 mm   Width 18.50 mm   Chromaticity coordinate x 0.434	Claim of equivalent power	No
Width 18.50 mm   Chromaticity coordinate x 0.434	Length	863.00 mm
Chromaticity coordinate x 0.434	Height	18.50 mm
	Width	18.50 mm
Chromaticity coordinate y 0.403	Chromaticity coordinate x	0.434
	Chromaticity coordinate y	0.403

R9 Colour rendering index	80
Beam angle correspondence	SPHERE_360
Survival factor	0.9
Displacement factor	0.9
LED light source replaces a fluorescent light source	No
EPREL ID	1317791
Model number	AC44159

#### 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

	Documents and certificates
POF	User instruction
PDF	Addon Technical Information
POF	Declarations Of Conformity CE
PDF	Declarations Of Conformity UKCA

	Photometric and lighting design files
	IES file (IES)
	LDT file (Eulumdat)
1	UGR file (UGR table)
	LDC typ polar
1	Spectral power distribution

## LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854029387	Sleeve 1	865 mm x 20 mm x 24 mm	121.00 g	0.42 dm <sup>3</sup>
4099854029394	Shipping box 10	925 mm x 155 mm x 90 mm	1640.00 g	12.90 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/ledtube

#### 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.