PRODUCT DATASHEET
LED TUBE T8 EM MOTION SENSOR 1200 mm 13.1W 840

LED TUBE T8 EM MOTION SENSOR | LED tubes with integrated microwave sensor for electromagnetic control gear (CCG) and AC mains, shatterproof

PERFOR-
MANCE
CLASS

Areas of application

- General illumination within ambient temperatures from -20…+50 °C
- Corridors, stairways, parking garages
- Warehouses
- Walkways and corridors
- Logistics areas, transport facilities and corridors

Product benefits

- Energy savings of up to 67 % compared to conventional fluorescent lamp
- Suitable for closed luminaires thanks to microwave technology
- Very high resistance to switching loads
- Quick, simple and safe replacement of fluorescent lamps without rewiring the CCG
- No bending thanks to glass tube
- Shatter protection thanks to special PET coating
- Support the implementation of the HACCP concepts from production through to presentation
- Also suitable for operation at low temperatures

Product features

- LED replacement for classic T8 fluorescent lamps with G13 socket for use in CCG luminaires or on AC mains
- Integrated microwave sensor with motion detection

- Automatic dimming to 20 % light output after 5 minutes without motion detection
- Automatic light switch off 7 minutes after the last motion detection
- Microwave sensor with 5,8 GHz
- Motion detection up to 5 m
- Low flicker according to EU 2019-2020 (SVM ≤ 0.4 / PstLM ≤ 1)
- Type of protection: IP20
- Mercury-free and RoHS compliant

TECHNICAL DATA

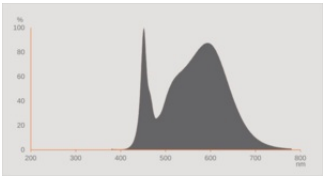
Electrical data

Nominal wattage	13.1 W
Nominal voltage	220…240 V
Operating mode	CCG, AC Mains
Nominal current	60 mA
Type of current	AC
Inrush current	5.10 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz [1)]
Max. lamp number on MCB B10 A	117
Max. lamp number on MCB B10 A - CCG without compensation	117
Max. lamp number on MCB B10 A - CCG with compensation	18
Max. lamp number on MCB B16 A	147
Max. lamp number on MCB B16 A - CCG without compensation	147
Max. lamp number on MCB B16 A - CCG with compensation	24
Total harmonic distortion	< 20 %
Power factor λ	> 0.90

1) DC 0 Hz

Photometrical data

Luminous flux	2100 lm
Luminous efficacy	160 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	80
Light color	840
Standard deviation of color matching	≤5 sdcm
Rated LLMF at 6,000 h	0.80
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 %)	‹ 0.50 s
Starting time	< 0.5 s

Dimensions & Weight

Overall length	1212.00 mm
Length with base excl. base pins/connection	1200.00 mm
Diameter	26.70 mm
Product weight	200.00 g

Temperatures & operating conditions

Ambient temperature range	-20…+50 °C [1)]
Maximum temperature at tc test point	70 °C

1) Temperature surrounding the lamp - for enclosed luminaires: temperature inside of the luminaire

Lifespan

Lifespan L70/B50 at 25 °C	60000 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)	G13
Mercury content	0.0 mg
Mercury-free	Yes

Capabilities

Dimmable	No

Certificates & Standards

Energy efficiency class	C [1)]
Energy consumption	14.00 kWh/1000h
Type of protection	IP20
Standards	CE / EAC / UKCA
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 T8 EM M

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	MLS
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
Standby power	0 W
Claim of equivalent power	No
Length	1212.00 mm
Height	26.70 mm

Width	26.70 mm
Chromaticity coordinate x	0,3818
Chromaticity coordinate y	0.3797
R9 Colour rendering index	1
Beam angle correspondence	SPHERE_360
Survival factor	0.9
Displacement factor	0.9
LED light source replaces a fluorescent light source	No
EPREL ID	1351270
Model number	AC45296,AC45296

EQUIPMENT / ACCESSORIES

– Suitable for operation with low-loss and conventional control gears

Safety advice

– Not suitable for operation with electronic control gear.
– Operation in outdoor applications in suitable damp-proof luminaires possible according to data sheet and installation instruction.
– Recommended maximum mounting height: 5 m
– Not suitable for emergency lighting.
– Disconnect mains before installation.

DOWNLOAD DATA

	Documents and certificates	Document name
PDF	User instruction / safety instructions	LEDTUBE T8 EM MS P
PDF	Extended installation guide	Notes on the operation of LEDVANCE LED tubes in compensated luminaires
PDF	Extended installation guide	LEDVANCE Luminaire conversion checklist
PDF	Legal information	Informationstext 18 Abs 4 ElektroG
PDF	Legal information	Safety insert_G11233312
PDF	Declarations of conformity	LEDTUBE T8 EM MS

	Documents and certificates	Document name
PDF	Declarations of conformity UKCA	LEDTUBE T8 EM MS

	Photometric and lighting design files	Document name
IES	IES file (IES)	LEDTUBE T8 EM MS P 1200 13.1W 840 LEDV
LDT	LDT file (Eulumdat)	LEDTUBE T8 EM MS P 1200 13.1W 840 LEDV
	UGR file (UGR table)	LEDTUBE T8 EM MS P 1200 13.1W 840 LEDV
	Light distribution curve type polar	LEDTUBE T8 EM MS P 1200 13.1W 840 LEDV
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 4000K

	Tender texts	Document name
TXT	Tender documents	LED TUBE T8 EM MOTION SENSOR P 1200 mm 13.1W 840-EN

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854044960	Sleeve 1	1,305 mm x 29 mm x 29 mm	229.00 g	1.10 dm^3
4099854044977	Shipping box 10	1,335 mm x 180 mm x 95 mm	2830.00 g	22.83 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/ledtube

Legal advice

– When used to replace a T8 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.