PHILIPS

UV-C disinfection linear

Philips UV-C linear
The power to disinfect

UV-C linear with sensor

The UV-C linear with sensor is designed for the disinfection of surfaces and is suitable for a wide range of applications. The UV-C linear provides universal UV-C irradiance with homogenous distribution. Its disinfection capability is based on wattage used and a specific exposure time for a given distance from that surface. No persons or animals should be present at the time of usage, due to high risk of harm to eyes and skin. It comes with safeguard controls using sensor monitoring, which automatically shuts down the UV-C linear should a person or animal be detected within the range of the sensor. The performance is enhanced by a highly-reflective and durable aluminum body, which improves its efficacy even further and directs the UV-C light to the to-be-irradiated surfaces and within the sensor range.

Benefits

- UV-C effectively inactivates many viruses and bacteria on directly irradiated surfaces.[1] Moreover, in laboratory testing, Signify's UV-C light sources inactivated 99% of SARS-CoV-2 virus on a surface with an exposure time of 6 seconds.[2]
- Proven, effective disinfection over the useful long lifetime of lamp and luminaire.
- Environmentally friendly - no ozone emissions during or after use.
- Fitted with safeguards such as physically integrated sensors that automatically shut down the UV-C linear when a person or animal is sensed.
- Can be used in numerous applications.
- Timer Pre-Sets for 30 mins, 1hr, 2hr and 3hrs for setting as per application.

Safeguard Benefits

- Auto Sensor Self detection check before starting operation and during operation.
- Auto Switch off in case of any presence of human beings or animals detected in the surrounding area (5m Radius).
- Cuts off UV-C irradiation beyond the sensor range to avoid any accidental exposure beyond the coverage area.
- Continuous visual warning while the disinfection operation is on.

Features

- Specially Engineered mirror optics to cut off UV-C irradiance to risk group 0 beyond the sensor coverage area.
- The specially designed mirror optics improve efficacy Average 90% by controlled distribution of the irradiance (Compared to UVC Batten with Al Cover).[3]
- Dip Switch available in sensor for time settings as per application.
- Philips T8 TUV lamp included: 36 W.
- Shortwave UV radiation peak at 253.7 nm (UV-C).
- Various mounting options.

[1] Fluence (UV Dose) Required to Achieve Incremental Log Inactivation of Bacteria, Protozoa, Viruses and Algae Revised, updated and expanded by Adel Haji Malayeri, Madjid Mohseni, Bill Cairns and James R. Bolton. With earlier contributions by Gabriel Chevrefils (2006) and Eric Caron (2006) With peer review by Benoit Barbeau, Harold Wright (1999) and Karl G. Linden.

[2] Data made available to us by the National Emerging Infectious Diseases Laboratories (NEIDL) at Boston University, which has been collected from a laboratory experiment conducted by Dr. Anthony Griffiths (Associate Professor of Microbiology at Boston University School of Medicine) and his team at the premises of the NEIDL (such data will be the subject of a forthcoming scientific publication by Boston University), shows that Signify's UV-C light sources irradiating the surface of a material inoculated with SARS-CoV-2 (the virus that causes the COVID-19 disease) at a UV-C dose of 5mJ/cm^2 (exposure time 6 seconds) resulted in a 99% reduction of the SARS-CoV-2 virus present on that surface.

[3] Photometric report (IES file), August 2020.

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Application

The UV-C disinfection linear with sensor disinfects surfaces that are directly exposed to the UV-C light, emitted by the UV-C linear. The linear may not be used in the presence of any persons or animals.

Retail	Disinfect shopping carts, shelves and counters.
Hair and beauty salons	Disinfect client rooms, operating floor, mirrors, chairs surfaces, and other sensitive areas.
Schools	Disinfect classroom walls, floors, desks and surfaces.
Offices	Disinfect work rooms, meeting spaces and corridors.
Banking	Disinfect counters, cash machines and work surfaces.
Hospitality	Disinfect guest rooms, reception areas and other facilities.
Food outlets	Disinfect bacteria on preparation surfaces and equipment.
Washrooms	Disinfect vanity units, basins and mirrors.
Transportation	Disinfect passengers' waiting spaces.

Warnings and safety

DANGER: Risk Group 3 UV product. Like any disinfection system, UV-C lamps and devices must be installed and used in the correct way. Direct exposure to UV-C can be dangerous and result in a sunburn-like reaction to the skin and serious damage to the cornea. As UV-C is invisible to the eye, the UV-C linear must be installed together with adequate safeguards to ensure that the UV-C linear can be operated in a safe way. The UV-C linears are only to be used as components in a system that consists of adequate safety safeguards such as, but not limited to, those indicated in the mounting instructions and/or user manuals.

Direct exposure to UV-C is dangerous. Philips UV-C products must only be sold through qualified partners and installed by professionals according to our stringent safety and legal requirements. Our UV-C products are not meant to be used in applications or activities which may cause and/or lead to death, personal injury and/or damage to the environment.

Disclaimer

The UV-C disinfection linears' effectiveness in the inactivation of certain viruses, bacteria, protozoa, fungi or other harmful micro-organisms is as described above under the heading "Benefits". Signify and its group of companies do not promise or warrant that the use of the UV-C linears will protect any user from or prevent from infection and/or contamination with any viruses, bacteria, protozoa, fungi, illness or disease. The UV-C linears are not approved and/or certified as a medical device by the FDA and/or any other regulatory body. As such, the UV-C linears are not intended for and must not be used to disinfect medical devices, rooms and/or spaces that are furnished with medical devices and/or for medical purposes. In addition to and without limitation of any exclusions or limitations of liability of Signify and its group of companies as set forth in any agreement for the sale, distribution or otherwise making available of the UV-C linears, Signify and its group of companies shall have no responsibility or liability whatsoever for any claim or damage that may arise from or relate to any use of the UV-C linears outside of their intended use or contrary to their installation and operation instructions, each as described in this document, the user manuals and/or the mounting instructions.

UV-C linear with sensor

Version

TMS160C 1X36W TUV
SLV/6 R Sensor

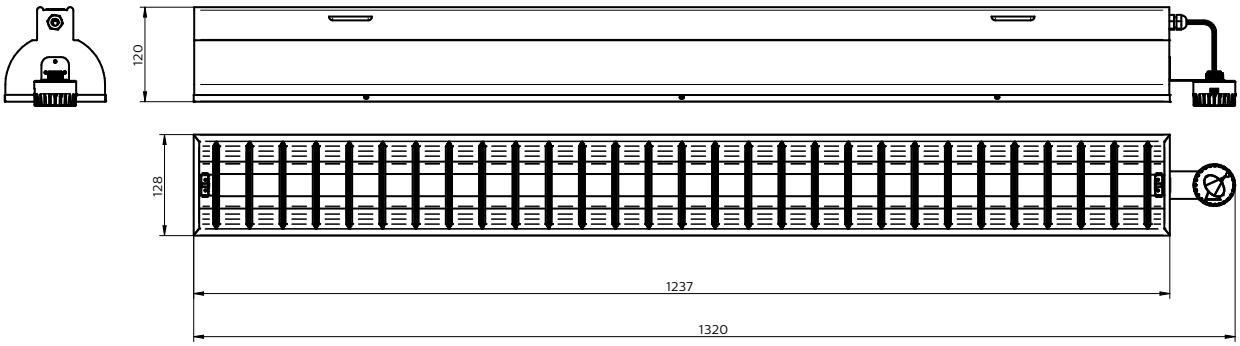
TMS160C 1X36W TUV
SLV/6 R Sensor
Top profile

TMS160C 1X36W TUV
SLV/6 R Sensor
Side profile

Microwave sensor

Microwave sensor

Dimensional drawing



UV-C linear with sensor

Datasheet

Input voltage, Frequency	220-240 V~(±10%), 50/60 Hz
Power Factor (full load)	≥ 0.9
Electrical class	Class I
External wiring	terminal block inside with a hole on the casing
Lamp holder type	G13 ([Medium Bi-Pin Fluorescent])
Ballast	913713031566 HF-P 136 TL-D III 220-240V 50/60 Hz
Housing material	SPCC, thickness = or > 0.4 mm. RAL 9010
Grill/Louvre	Anodize aluminum sheet
IP protection	IP20
IK protection	IK02
Installation	Suspending mounted; Surface mounted (Mounting accessories need to be provided separately)
Working temperature	10°C ~ 45°C
Sustainability	China RoHS 2.0 & REACH
Approbation	CCC/CB/EMC/CE/IEC60598 (Safety)
Packaging	sell in kit, (1 Batten + 1 Lamp)
Lifetime	25,000 hours
Switch cycle	> 35,000 times (daily on and off 10 times)
warranty	1 year
Lamp type	Philips TUV T8 36W SLV/6 (12NC 928048604003)
Mercury (Hg) Content (Nom)	2 Mg
Lamp Effective Lifetime	9000 Hrs
Net Weight	135.00 Gm
Power Rated	36 W
UV-C Radiation at 100 hr	15.0 W
Color Code	TUV
Depreciation at Useful Lifetime	10%

Operating and Electrical

Full Product Name	Lamp Current	Voltage	Power	Order Code
	A	V	W	GPC
TMS160C 1X36W TUV SLV/6 R Sensor	0,18	220-240	36	911401555171

UV-C radiation

Full Component Name	UV-C Radiation	Order Code
	W	GPC
TMS160C 1X36W TUV SLV/6 R Sensor	10,1	911401555171

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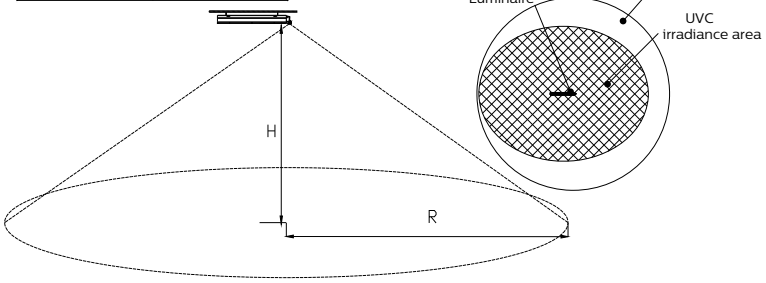
Sensor Application Notice/Sensor

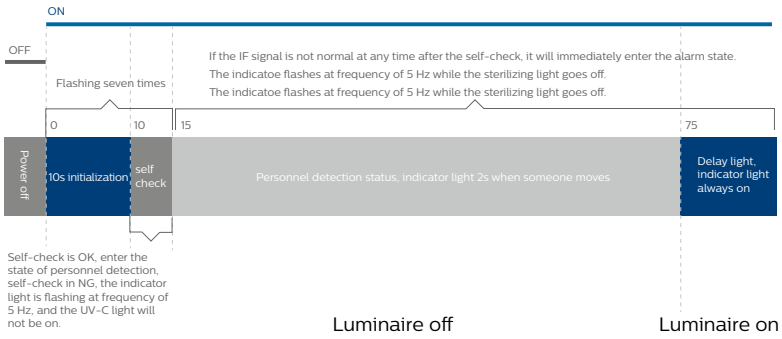
Detection range

(H)	(R)
Mounting Height (H)	Detection range (R)
<3.1M	5M

Make sure installation height <3.1m, otherwise the sensor detection area may not cover the whole UVC Irradiance area



Working Flow



Design Function Flow

Luminaire manual on

Warning
- Indicator lamp flick 2S/cycle
- Last 10s

Self detection
- Indicator lamp flick 2S/cycle
- Sensor function avaible
- Last 5s
- Indicator lamp flick 0,2S/cycle when fail

Human detection
- Switch on after no human detection
- 60s timer, recount once detect people
- Indicator lamp on when detect people, ~2s

Luminaire working
- Indicator lamp on when non-detection
- Switch off when detect people
- Switch on again after 60s non detection

Time limit
- Switch off luminaire after set time

Luminaire switch off
- Reset sensor functions

www.philips.com/uv-c