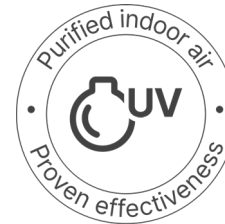
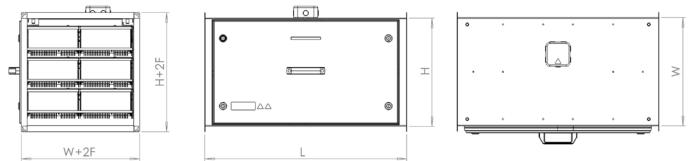


UV Smart HVAC – Technical data

UV-C air disinfection module for the effective elimination of harmful airborne microorganisms, designed for integration into new HVAC systems and also suitable for retrofitting into existing installations.



- Effectively combats viruses, bacteria, and spores
- Easy to retrofit
- Modular system, adaptable to duct dimensions
- High efficiency due to low absorption
- Energy-saving
- Flexible application, dimmable
- Use of state-of-the-art LED technology



Type

Designation	UV Smart HVAC - In-duct
Article no.	110211yzz
Options	1102121xy UV Smart HVAC Control Box 11021221xx UV Smart HVAC Sensor Hub 1000000xyz UV Smart UV-C LED Source 3R 10000011xy UV Smart UV-C Modul 3R

Mechanical data

Housing material	Stainless steel, galvanized steel
Color	Stainless steel
Pull-out	Left / Right
Connection: Flange (F)	20, 30, 40 mm
Measurements (L x W x H)	750 x 400 - 1000 x 200 - 1100 mm
Weight	40 – 200 kg
Mounting type	Integration in the in-duct

Optical data

Radiation source	UV-C-LED
Wavelength	280 nm (+/- 5 nm)
Irradiance Ø	2,5 mW / cm ²
Photobiological safety	Risk class 0
Radiation flux Ø	200 mW – 1200 W
Min. recommended effective range	> 3,5 m @ 1,6m/s
Active optical area	Closed

Electrical data

Connected load	40 - 2400 W
Supply voltage	220 – 240 V / 50 Hz
Control unit	Web Interface / electrical function monitoring / programmable potential-free contacts / Interface to building management system
Connection	3-pol., 1,5 -2,5 mm ²
Protection class	I
Maintenance interval	10,000 operating hours

Environmental conditions

Ingress prot.	IP 44
Ambient temperature	-20 to +40°C
Sealing class	B
Pressure	Ca. 30 Pa @ 1 m/2

Labeling and certificates

License plate	CE
Applied standards	VDE 6022 DIN EN 62471-1 DIN EN 60204 EN ISO 12100 DIN EN 60335-1 / 2-65 DIN EN 62471-6 EMV2014/30/EU DIN EN IEC 55014 DIN EN ISO 15858
Proof of effectiveness	LMU, Fraunhofer IBP 99% @ 2m/s

UV Smart HVAC – Technical data

General information

This is a modular UV-C disinfection unit, with dimensions and performance that may vary. The system described here serves as an example and is custom-adapted for retrofitting based on the existing duct dimensions on site.

Safety instructions

The disinfection unit operates internally with UV-C radiation. When installed correctly, no UV radiation escapes to the outside, meaning the device meets photobiological risk class 0. A safety shut-off mechanism ensures that the UV-C radiation is automatically deactivated when the inspection drawer is opened. UV-C radiation can potentially be harmful to skin or eyes; therefore, direct exposure to the radiation must be avoided. Operation is only permitted with adjacent, light-tight duct elements. For this reason, UV-C units may only be distributed by trained partners and must be installed and maintained according to strict safety regulations.

No modifications may be made to the system or the radiation area after installation. Air outlets within the effective range must be checked for escaping radiation. Access panels within the irradiation zone must be monitored to prevent unauthorized opening. The unit must be disconnected from the power supply before opening the inspection drawer.

Areas of application

- Central HVAC systems

Accessories / Options

Control Box

- Standard Ethernet Webinterface
- Remote maintenance via LTE

Sensor Hub consisting of

- Flow sensor
- Temperature sensor
- UV-C measuring sensor

Proof of effectiveness

The effectiveness of the system was verified by the Fraunhofer Institute IBP. At an airflow velocity of 2 m/s, 99% of the test organisms were inactivated

Duct sizes

Article-No. Induct	Pull-out right	Pull-out left
W400, H200, Fl. 20	1102110201	1102110202
W400, H300, Fl. 20	1102110401	1102110402
W600, H300, Fl. 20	1102110601	1102110603
W400, H400, Fl. 20	1102110602	1102110604
W800, H500, Fl. 30	1102112001	1102112002
W600, H600, Fl. 30	1102111801	1102111802
W1000, H700, Fl. 40	1102113501	1102113502
W1000, H900, Fl. 40	1102114501	1102114502

Additional duct sizes available upon request.