

UV SENSORS TO CONTROL UVC SURFACE DISINFECTION

GENERAL INFORMATION

Besides chemical treatment, UVC sterilization is applied to disinfect air and tools in hospitals, doctor's offices, pharmacies as well as food and pharmaceutical production facilities and public washrooms. The needed UVC radiation is generated by Hg low pressure lamps, excimer lamps, pulsed Xenon lamps or LEDs. However, surfaces in other facilities that are open to the public are not yet object of systematic disinfection. The COVID19 pandemic recently raised the attention to also disinfect these locations, e.g:

- disinfection of air and surfaces in open office environments, factories, depots, public transportation, washrooms and lockers
- surface disinfection of packages
- disinfection of tools in workshops and production facilities

While designing and using of UVC disinfection systems it is important to ensure that the surface to be disinfected will be irradiated with a sufficient germicidal UVC dose. The International Ultraviolet association's website (iuva.org) publishes a good overview at the state of the art and recommended irradiation doses for different purposes.

PRODUCTS

All of the mentioned applications require measurements of the UV radiation either at its place of generation or at the position of the goods to be disinfected. This procedure is crucial to ensure that a sufficient germ killing UV dose hits the goods. The below presented products are applied for this purpose.



Duty sensor "UV-Sanitize" for permanent measurements

- This sensor is designed for permanent measurements of the germicidal UV-irradiation of a source or at the position of the goods to be disinfected. It is made of dirt repellent PTFE and it is water proof at wet side. It can be calibrated to any UVC disinfection source.



UV radiometer "SXL 55" for mobile measurement at disinfection good position

- UV radiometer / dosimeter for measurement of the germicidal irradiation and dose at a defined position. It can be calibrated to any UVC disinfection source.



Radiometer "Safester-UVC" for risk assessment on work places

- Radiometer for risk assessment on work places according to the guideline 2006/25/EC. The instrument is needed to ensure that UV disinfection systems do not emit harmful irradiation e.g. leaking out of holes and gaps.