IUVSense

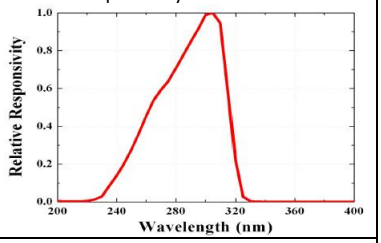
MODEL IUV-PV-WF-F
MODEL IUV-PV-WF-P

Outdoor, autonomous, UV-index indicator. This module has:

- Analogue display of UV index, according to WHO;
- Wi-Fi communication with pre-defined database;
- Photovoltaic supply;
- Polycarbonate front protection;
- White-painted, galvanized-steel case/structure;
- Customized display layout (vinyl).

It is recommended for outdoor real-time monitoring of UV index in, for example, pools, beaches, parks, gardens, golf courses, etc. It can be installed in an existent pole (model IUV-PV-WF-P) or directly fixed in the floor (model IUV-PV-WF-F). Highly resistant to corrosion.

Main technical data

Acquisition	Typical	Min.	Max.
Data refresh period	60 s	30 s	300 s
Operating temperature	30°C	0°C	50°C
In-built communication	Wi-Fi		
Photovoltaic panel type and size	40 Wp, Poly-Si, 669 x 455 x 28 mm		
Battery type and ratings	VRLA, 12 V, 7.2 Ah		
UV sensor head 	GUVB-S11SC-3LWH3 Relative responsivity: 		
UV index display (reflects adoption of the Global Solar UV Index (effective May 2004).	UVI Range / Exposure Category: Low [0 2] Moderate [3 5] High [6 7] Very High [8 10] Extreme 11+		
Protection degree	IP63 acc. To EN60529		
Case/structure material	Galvanized steel		
Front protection material	Polycarbonate		
Front display layout	Vinyl sticker (customized)		
Fixation to the floor	4 points per leg (see drawings)		
Fixation to a pole	4 clamps (see drawings)		
Weight of display assembly	≈ 40 kg		
Panel size (W x H x D)	1500 x 1000 x 80 mm		
Legs length	1.5 to 2.0 m (customized)		
PV arm length	0.5 m		
UVI display diameter	56 cm		
Polycarbonate size (W x H x D)	60 x 60 x 0.3 cm		

Complete view

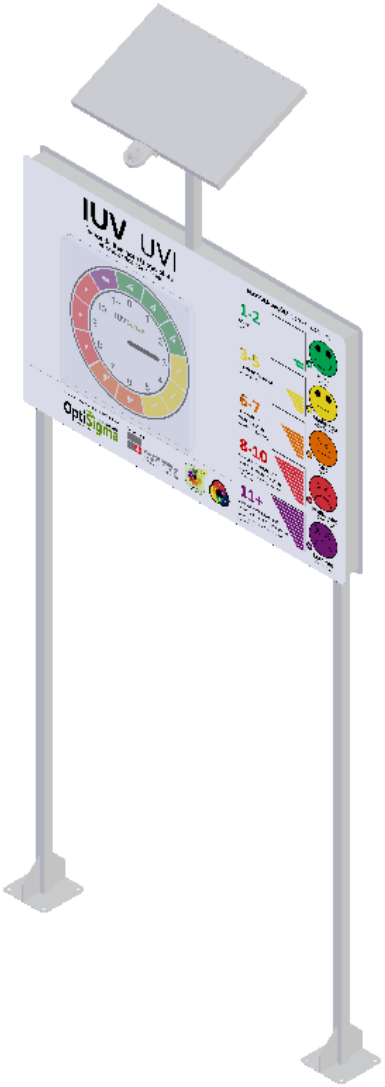


Fig. 1. Floor-fixed model (IUV-PV-WF-F).

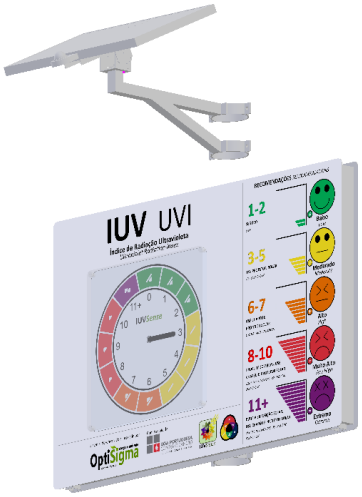
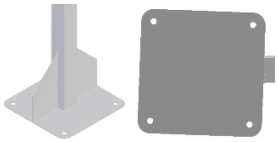


Fig. 2. Pole-fixed model (IUV-PV-WF-P)

Zoom of foot for fixation of the system in the floor



Foot dimension: 20 x 20 cm
Holes diameter: 1.3 cm
Distance between the center of the holes: 16 cm

Fig. 1. Fixation foot.

Zoom of clamps for fixation of the system in an existing pole

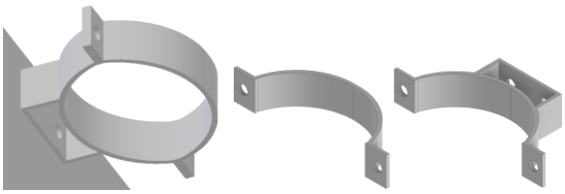


Fig. 4. Fixation clamps.

Clamp-set diameter: 15 cm (for poles with a diameter up to 20 cm)
Holes diameter: 1.3 cm

PV fixation

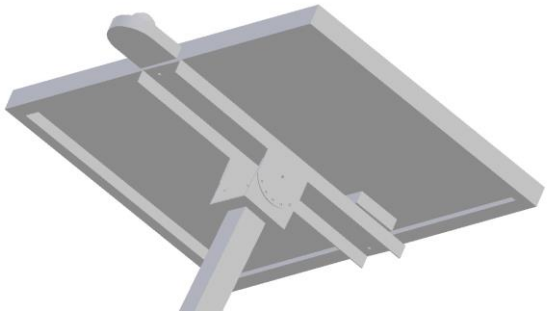


Fig. 5. PV fixation system.

Inclination adjustment: 0° (horizontal), 12°, 24°, 36°, 48°
Orientation adjustment: 0-360° (rotation)

Pole installation options

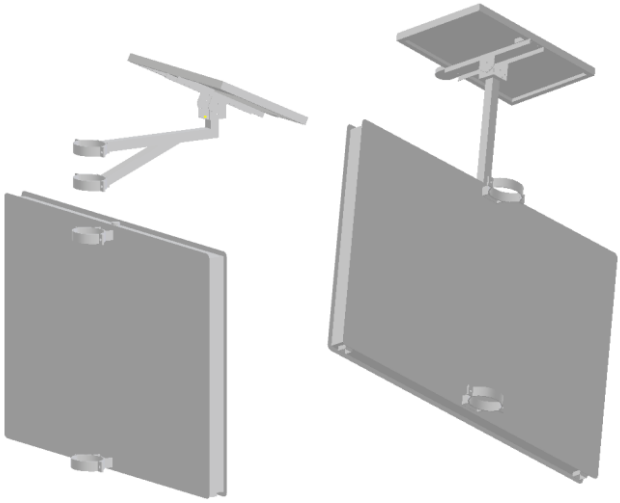


Fig. 6. Pole installation options: (left) both panel and PV fixed to the pole; (right) panel fixe to the pole and PV fixed to the panel.

Data communication

Fig. 7. Data communication diagram.

Example of online data

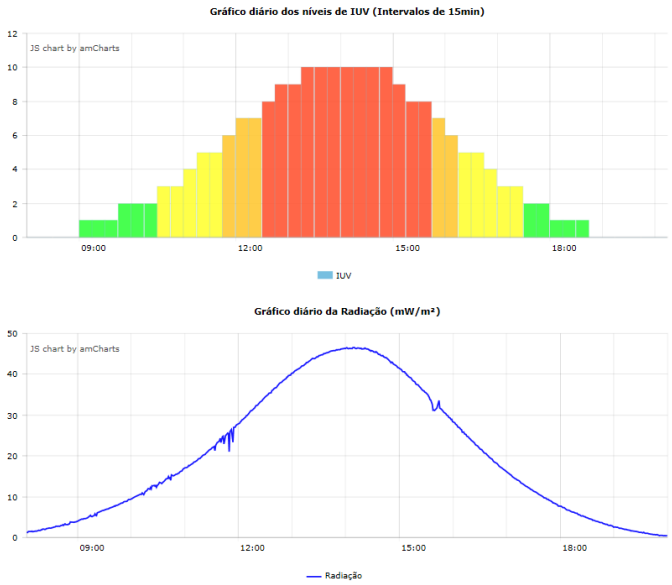


Fig. 8. Typical UVI and UV radiation variation during a day.

Note 1: Technical information may change without prior notice.
Note 2: 2-year warranty for all components, with exception of the battery, which has a warranty of 1 year.
Note 3: OptiSigma can provide technical support to set the communication between the IUVSense and an online database, in order to display the measured UVI in a website.
Note 4: OptiSigma recommends annual recalibration of the UV sensor. Initial calibration certificate is provided by the UV sensor head manufacturer.

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