

UV Index Radiometer

LPUVI02

○ ACCORDING TO THE STANDARD

Fully compliant with WMO requirements for the measurement of UV-Index

○ FLEXIBILITY & VERSATILITY

Current or voltage output at choice.

Available with standard 0...16 as well as with extended 0...20 UV-Index measuring range

○ STAND ALONE OR PART OF A NETWORK

Often combined with other radiation sensors for a complete overview of all solar radiation components

○ ACCURATE MEASUREMENTS OVER THE TIME

Supplied factory calibrated & with a Calibration Report.

○ LOW MAINTENANCE

Ideal also for use in remote installation

The ideal device for calculating daily exposure to UV radiation

The UV Index is the amount of skin damaging UV radiation reaching the earth's surface. The **amount of UV radiation reaching the surface** is primarily related to the elevation of the sun in the sky, the amount of ozone in the stratosphere, and the amounts of cloud cover. Nowadays, many services that provide weather data include the UV index in the available data.

By indicating the potential damage that the solar ultraviolet radiation causes the skin and the eyes, **UV-index scale** is at utmost importance to give people correct information and to take adequate prevention measures.

LPUVI02 is meant for the purpose: it measure precisely the global effective irradiance on a flat surface and allows to calculate the exact UV index in accordance with the requirements of the WMO.

A version with **extended full scale 0...20** is also available for measurements of UV in equatorial areas or high mountains where the UV value are significantly high. Thanks to the different available outputs, the radiometer can be easily integrated in existing networks of sensors.

Sensors are supplied with their own **Calibration Report**.

Delta OHM

Member of GHM GROUP

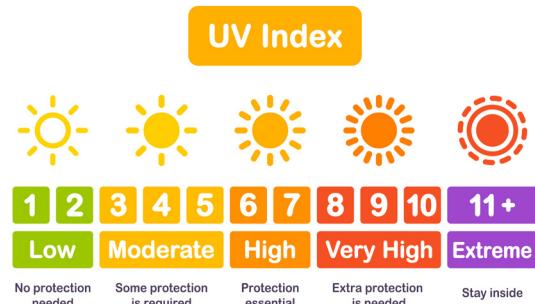


Main Applications

Meteorological Research Stations

Climate observations

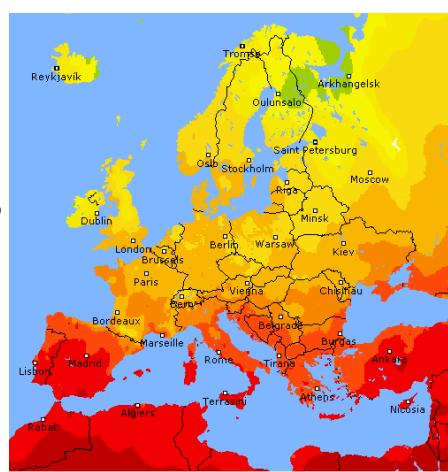
Weather forecast



UV index - UV radiation exposure categories and related precautions

Example of UV index map in Europe dated 29/07. Indices from 8 to 10 are common in the Mediterranean area. The Sun Index forecast refers to the daily maximum.

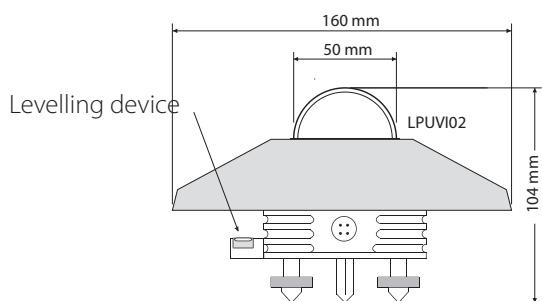
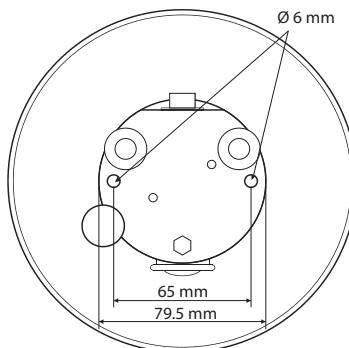
Source: www.weatheronline.co.uk



Technical Specifications

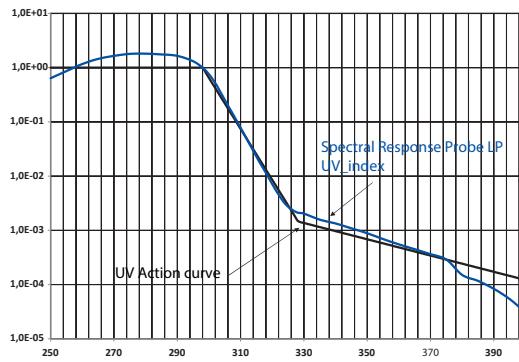
| | |
|--------------------------------------|--|
| Measurement range | 0...16 UV_index (versions 02) 0...20 UV index (vesions 02.1) |
| Viewing range | 2π sr |
| Spectral range | According to the UV weighting curve |
| Response time | <0.5 sec (95%) |
| Output | LPUVI02AC = 4...20 mA LPUVI02AV = 0...1, 0...5, 0...10 V (depending on the model) |
| Power supply | 8...30 Vdc (15...30 Vdc only for output 0...10 V) |
| Working temperature | -40 °C...+80 °C |
| Response according to the cosine law | < 8 % (between 0° and 80°) |
| Long term instability (1 year) | < ±3 % |
| Non linearity | < ±1 % |
| Response according to temperature | < 0.1%/°C |
| Weight | 0.90 Kg |

Dimensions

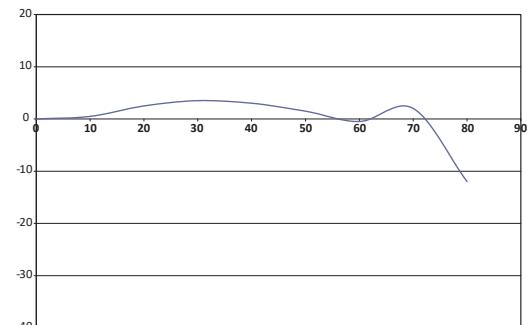


In order to ensure the quality of our instruments, we are constantly re-evaluating our products. Improvements can imply changes in specification; we advise you to always check our website for the newest version of our documentation.

The radiometer LPUVI02 is based on an innovative solid state sensor. The spectral response has been adapted to that of the weighting curve UV (CIE, Erythema action curves). The graph below shows the comparison between the spectral response of LPUVI02 probe and the UV action curve (Erythema).



The answer according to the cosine law has been obtained through the use of a new material with excellent diffusion properties and transparency to ultraviolet. The deviation between the theoretical and the measured response is shown in the graph below.



Error response according to the cosine law $f2 < 3,5\%$

Ordering Codes

LPUVI02

Output
AC = 4...20 mA
AV = 0...10 V
AV1 = 0...1 V
AV5 = 0...5 V

Measuring Range
Blank = 0...16 UVIndex
.1 = 0...20 UVIndex

Radiometers are supplied with shade disk, silica-gel cartridge, 2 spare sachets, levelling device, female M12 connector and Calibration Report.

Accessories

CPM12AA4.xx 4-pole M12 connector on one end, open wires on the other end (available length 2, 5 or 10 m).

LPSP1 Only attachment bracket, suitable for mast with diameter 40...50 mm. Installation on horizontal or vertical mast.

LPS6 Kit for the installation of the radiometer. The kit includes: 750 mm mast, base fitting, graduated support plate, bracket for radiometer.

LPRING02 Base with levelling device and adjustable holder for mounting the radiometer in an inclined position.

We look forward to your enquiry:

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Delta OHM S.r.l.

Single Member Company subject to direction and coordination of
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