

UV METERS AUSTRALIA

Product Information

A photograph of a UV index meter mounted on a tall pole. The meter is a rectangular box with a display screen and a sensor. The background shows a beach with waves and a cloudy sky. The image is faded and serves as a background for the product name.

UV INDEX METER

UVMA V7.0

WHAT WE'RE ABOUT

At UV Meters Australia, we believe that raising awareness of UV Radiation and healthy choices in regard to sun exposure helps shape behaviours that prevent skin cancer. We use the latest in UV Sensing Technology as a platform to measure and display real-time UV Index Data that is essential for everyone to regulate their UV Exposure.

Our Mission is to provide Quality, Real-Time Field UV Index Meters that provide accurate and timely information. Our UV Index Meters are designed to withstand the rigors of outdoor use and are calibrated to the National Method to provide confidence in their operation.

Supplied through our National Network to all States and Territories in Australia, and throughout International Network to customers abroad.

Join the daily fight against UV Radiation by providing your team with the Training & Equipment to make informed decisions.



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UV SCIENCE

UV EFFECTS + HEALTH

Excessive exposure to UV Radiation from the sun is a well-documented cause and primary contributor to melanoma and skin cancer. Prolonged exposure to solar UV may result in chronic health effects on the skin, eyes and immune system.

Australia and New Zealand have the largest incidence of melanoma and skin cancer globally which can largely be preventable given a proactive and defensive approach to protection from the sun. There is a well-established body of evidence that links solar UV exposure and skin cancer.

The World Health Organization has declared UV Radiation a known carcinogen, both from sun and artificial sources. Conversely, the World Health Organization (W.H.O) has also identified that Vitamin D deficiency in some populations is a direct result of insufficient exposure to solar UV, being the primary source of Vitamin D for humans. Having identified the associated impacts specifically in children up to 18 years of age, The World Health Organization (W.H.O) have reviewed their public health message accordingly.

The World Health Organization's Public Health Message in relation to UV Exposure, stated that it,

'..appears to have overemphasized the health risks and undervalued the health benefits of solar ultraviolet-B (UVB) irradiance.'

<https://www.who.int/bulletin/volumes/85/5/06-035089/en/>

It was found that a more sophisticated approach to UV exposure was required such that the population can better regulate their UV exposure in the healthiest way possible. To provide such basis of information, the WHO developed the World Health Organization UV Index (UVI) specifically to indicate the best behaviors at varying levels of UV radiation.

Most important is to maintain a balance in the exposure of Solar UV for Vitamin D Production, while at the same time avoiding the risks of skin damage from too much exposure.

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Overexposure of UV Radiation

The most common acute effects of UV Exposure is the reddening of the skin, termed 'Sunburn'. However, overexposure to solar UV has a number of negative health impacts. These include damage to the skin, eyes and immune system. As overexposure of solar UV is the leading cause of skin cancer, it can therefore be largely preventable given a proactive and defensive approach to protection from the sun.

Underexposure of UV Radiation

For most people, sunshine is the main source of Vitamin D. Vitamin D is produced in the body when the skin is exposed to Ultraviolet B (UVB) light emitted from the sun.

Although the required amount of exposure to solar UV is relatively low, there are many Australians who do not have adequate levels of Vitamin D. Required exposure levels vary depending on season, skin type and duration of exposure, and requires a regulated approach to maintain adequate levels.

Inadequate levels of Vitamin D present a range of health problems including bone & joint pain and muscle weakness. In children, Vitamin D Deficiencies can result in rickets, a condition that causes bone and muscle weakness and bone deformities. This can also pass from expectant mothers into their babies unless addressed which can effect the child's normal bone growth.

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SCIENTIFIC RESEARCH

The most effective approach to managing ones UV Exposure is using the Universal UV Index (UVI) Developed by the World Health Organization (W.H.O).

The UVI, as defined by W.H.O is:

“a measure of the level of UV radiation. The values of the index range from zero upwards – the higher the UVI, the greater the potential for damage to the skin and eye, and the less time it takes for harm to occur.” World Health Organization

The UVI is an important tool to alert the public about the need to use sun protection. Current behaviours indicate that personal habits in regard to sun exposure constitute the greatest risk to people from UV Radiation exposure.

Each day the UV Index profile increases from dawn, to a maximum within the four hour period around the solar noon. This will vary depending on geographical location and seasonal effects.

The W.H.O has determined that universally:

UVI Level of 2 or less,

Requires No Sun Protection and is the ideal time of the day to be exposed to the sun for Vitamin D production.

UVI Levels 3 to 7,

Sun Protection is Recommended in the form of sunscreen, sun shirt, wide-brimmed hat and sunglasses that protect the eyes from the sun.

UVI Levels 8 and above,

Extra Protection is Recommended and the general advice is to seek shade away from the sun.

https://www.who.int/uv/intersunprogramme/activities/uv_index/en/

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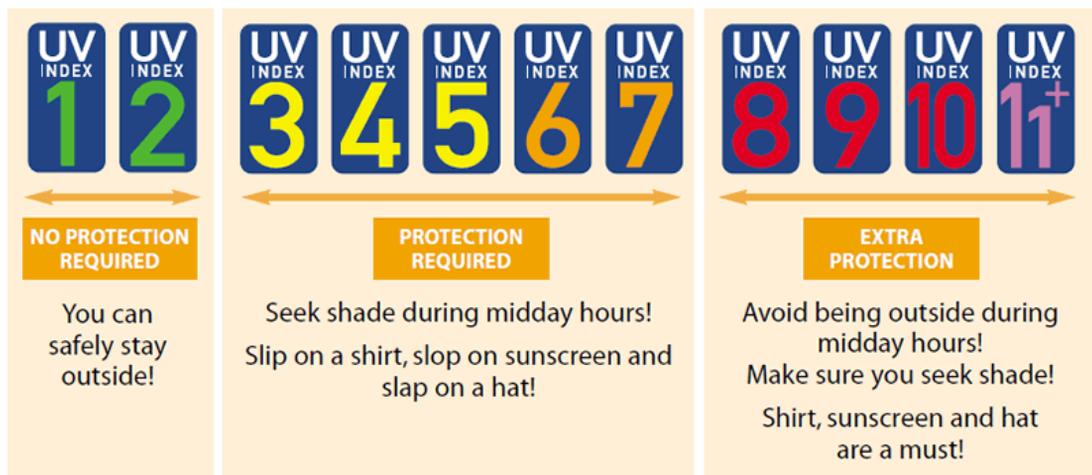
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WORLD HEALTH ORGANISATION UV INDEX

To overcome the related health risks from both over and under exposure to UV Radiation, the World Health Organization developed the UV index (UVI), a universal approach to understanding UV exposure. The UV Index is a numerical range from 0 to 11+, which highlights the gradual increase in UV strength and the associated recommended behaviors to mitigate this risk.

The UV Index indicates 3 Distinct Sun Protection Categories as the UV strength increases.

These are as follows:



World Health Organisation UV Index

https://www.who.int/uv/intersunprogramme/activities/uv_index/en/index1.html

Category 1	UV Index 0 – 2	Requiring No Sun Protection to safely stay in the sun
Category 2	UV Index 3 – 7	Some Protection Required – Shirt, Sunscreen, Hat and Sunglasses
Category 3	UV Index 8 – 11+	Extra Protection Required with the general advice to seek shade out of the sun.

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UV AWARENESS

SCHOOLS AND EDUCATIONAL FACILITIES

It is widely acknowledged that a significant amount of skin damage occurs in children up to 18 years of age. This provides significant justification for including a UV Index Meter in school play areas and aligning a strategic UV Education Program to promote healthy life habits in the next generation.

Having UV data prominently displayed via a UV Index Meter and included in a teaching program, prompts children to learn the risks of UV exposure and promoting awareness and behavioural change among the cohort.

The UVMA-V 7.0 provides a large display field UV Index Meter that uses the WHO UV Index, combines with colour warnings and graphics to illustrate the suggested sun protection.

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UV AWARENESS

WORKPLACE ENVIRONMENTS

With a significant amount of employment in Australia residing in an outdoor environment, the need to monitor and manage UV exposure has never been more critical. In cases brought before the courts, it has been acknowledged that the employer ultimately has a duty of care for employees in regard to UV exposure.

Landmark verdicts such as these, has seen over 1300 Workers Compensation Claims with a value of \$38.4m made for UV related injury and disease. Working outdoors, presents a need to review operational procedures and apply the most recent policies in regard to UV Exposure.

It has been recommended, that companies with employees working in UV exposed environments, effect immediate procedural review and update with an effective UV data measurement protocol.

UV Meters Australia's UVMA-V 7.0 provides a field instrument that is calibrated to the National Method and through policy & training, able to deliver a reliable platform to improve worker safety and mitigate this risk to the business.

Since the precedent was set and the awareness of the responsibility organisations have to their employees, there has been an increase in claims related to UV illness and disease. This is anticipated to increase significantly into the future due to the delayed nature of skin cancers from when the damage occurred.

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UV AWARENESS

OPEN PUBLIC SPACE

Similar to other public health and safety campaigns, the UVMA-V 7.0 is an excellent tool to provide UV data in public open spaces. With a significant number of visitors, and a large portion of these tourists, a consistent international UV message is ideally placed to provide awareness to those visiting the area and promoting healthy behaviors.

Specifically accommodated to tourists and visitors, many who do not speak English, the UVMA-V 7.0 has a unique display that uses not only the universal numbering convention but also standard warning colour indicators and pictorial representations to indicate the suggested sun protections.

With World Health Organization acknowledging that a high-risk population being fair skin visitors to high UV areas, strategically located UV meters provide a health and safety platform that protects these people.

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UV SOLUTIONS

OUR UV INDEX METER

The primary cause of skin cancers, being directly attributable to overexposure to solar UV and the concerns identified around Vitamin D Deficiencies in some populations, presented the opportunity to develop a product that could provide accurate and timely UV Data that could be used to indicate a suggested change in protection from the sun.

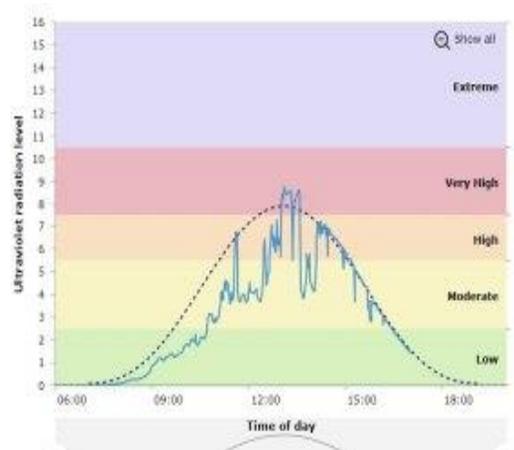
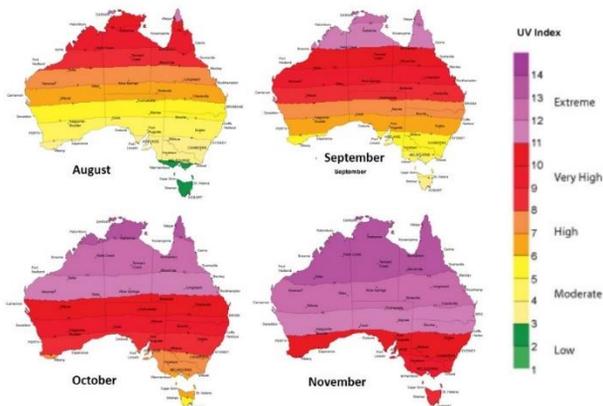
Generic UV data is made available for most locations however the vast majority of this data is forecast only. Further, this published and forecast data is not readily and permanently available for those in a specific area to be aware of.

The solution is the use of a real-time field UV Meter specifically tasked to provide accurate data at the location via a display that utilizes universal representations. Having this data prominently displayed provides a unique opportunity to change public behaviours around UV exposure while also aligning with the latest related public health message from the World Health Organization.

By regulating one's exposure to solar UV per the World Health Organization's UV Index, the correct sun protection can be managed effectively while simultaneously maintaining correct levels of exposure for Vitamin D absorption.

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Features

- Applies World Health Organization UV index.
- Strategic use of universal warning colours and pictorial references for all groups.
- Display uses a radial colour/numerical display that is easily understood by all age groups.
- System is solar/battery powered, not requiring additional power supply - excellent for remote locations.
- System has a variety of structurally engineered mounting solutions to accommodate different locations.
- The UV Index Meter has been designed for outdoor use.
- System is 3rd party calibrated to the National Methods.
- Multi configurable to suit your needs:-
Single-sided or Double-sided Frame Mount, Pole Mount or Wall Mount

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Technical Data - UVMA-V 7.0

TECHNICAL DATA	
UV Index Display	World Health Organization UV Index (UVI)
UV Index Range	0 to 11+
Meter Dimensions	1000mm x 1000mm
Solar Panel	500mm x 500mm : 18.5v
Configuration	Single-Sided or Double-Sided
Mounting Options	Frame, Pole or Wall Mount
Connectivity	Wireless Connection - Option
UV Sensor Weighting	-30 deg C to +85 deg C
Sensor Cycle time	10 seconds

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UV INDEX METER APPLICATIONS

Education Facilities such as:

Schools, Colleges, Universities, TAFE, Childcare Centres

Outdoor Workplaces such as:

Building and Construction Sites, Council Municipal Workers, Power & Water Utilities Workers, Police and Emergency Services, Defence Installation, Farms, Airports, Landscape Gardeners, Road Works, Postal, Courier and Logistics, Ports and Harbours, Mining & Related Services, National Parks & Wildlife, Surveyor & Development Sites, Earthwork & Concrete Industries

Public Spaces such as:

Swimming Pools, Surf Clubs, Beaches, Sports Grounds, Golf Courses, Public Open Areas, Playgrounds, Parks, Tourist Attractions, Theme Parks and Amusements

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UVMA – V7.0 TECHNICAL SPECIFICATION

Features

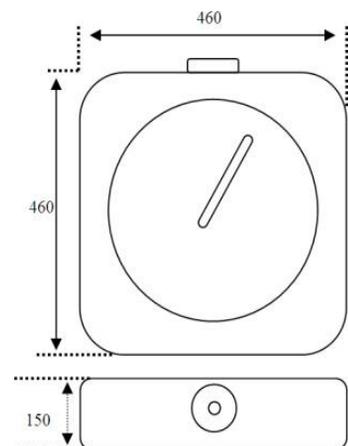
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- **Material**

Case: ABS

Cover: Acrylic

Physical Dimensions & Connection



Unit : mm

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Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Remark
Storage Temperature	T _{sp}	-30 ~ 80	°C	
Operating Temperature	T _{op}	-30 ~ 70	°C	

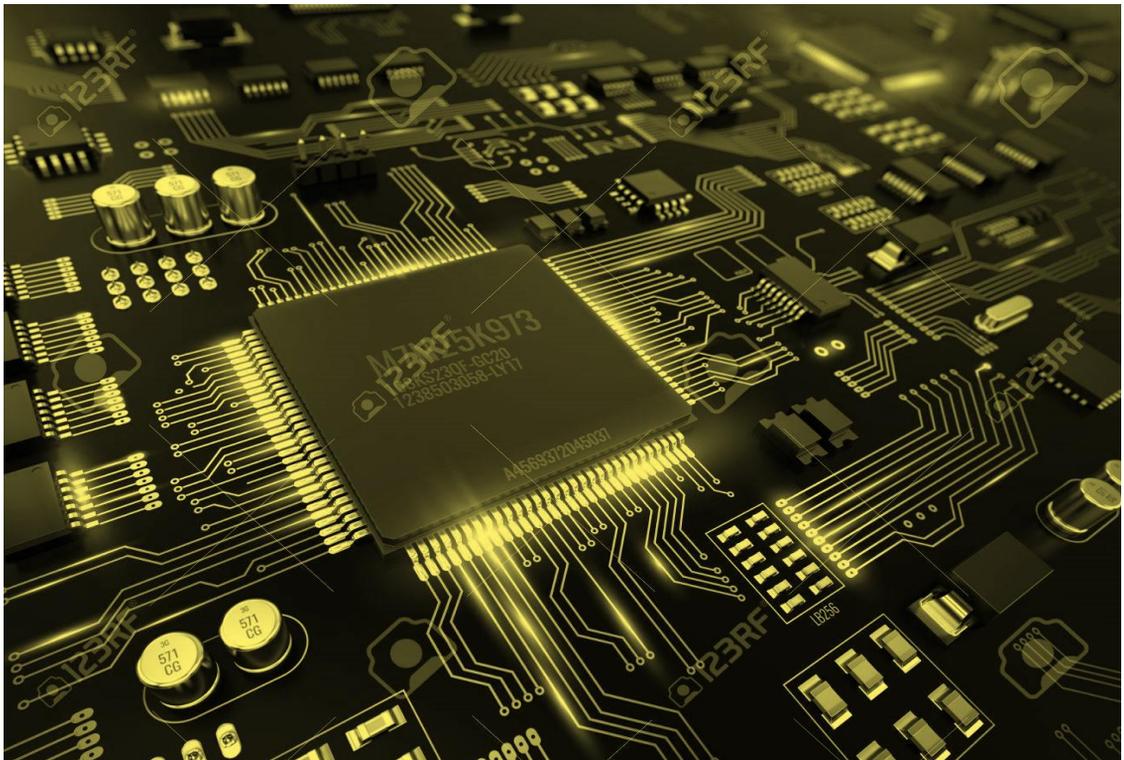
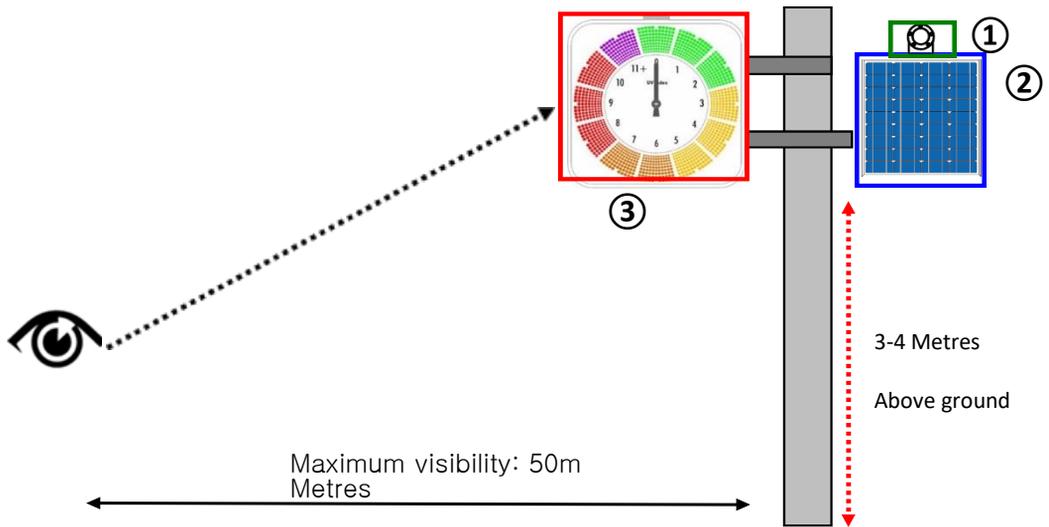
Mechanical Data

Parameter	Value	Unit	Remark
Weight	12.5	kg	with Solar Panel
S i z e	Indicator	460 × 460 × 150	mm ³
	Solar Panel	570 × 500 × 25	mm ³

Electrical Characteristic (at 25 °C)

Parameter	Symbol	Value			Unit	Remark
		Min.	Typ.	Max.		
UV Index Display		0		11+	UVI	
Delay Time	Tr		10		sec	

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TECH SUPPORT

INSTALLATION

UV Meters Australia provide a comprehensive project service including installation for the UV Index Meters. This includes all technical aspects including location selection, environmental factors, existing building and services that need to be considered and the orientation of the system.

Having our Field Teams Install, Commission and Test your UV Index Meter ensures it can be relied upon from day one. Upon completion, the UV Index Meter will be inspected and officially signed into service with all project data recorded to verify the instruments structural and installation quality.



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AFTERSALES SERVICE

Using UV Meters Australia's UVMA- V 7.0 requires minimal input or maintenance from the owner. Being a public health warning instrument and also an occupational workplace safety tool, it is industry best practice to inspect the UV Index Meter annually to confirm its serviceability. A field test and calibration is recommended to verify its accuracy to the national methods and to also conduct a general working order test.

Although robustly designed to withstand the rigors of an outdoor environment, UV Meters Australia recommend & support an Annual Service to inspect the meter, test its components, and conduct a calibration check against a verified method. Applying this regime provides the owner and the meter's intended users confidence that its data can be relied upon to make informed sun protection decisions.

TECHNICAL SUPPORT

UV Meters Australia have a full service Technical Support Team In-House should you require any assistance in the field, or have any questions about your UV Index Meter.

NATIONAL AND INTERNATIONAL NETWORK

UV Meters Australia have Technical Offices located in Sydney and Perth with Regional Field Teams geographically located to assist with UV Index Meter installation and aftersales support nationally. International clients are supported by our strategic partners located in-country.

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contact us

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