

Product catalogue



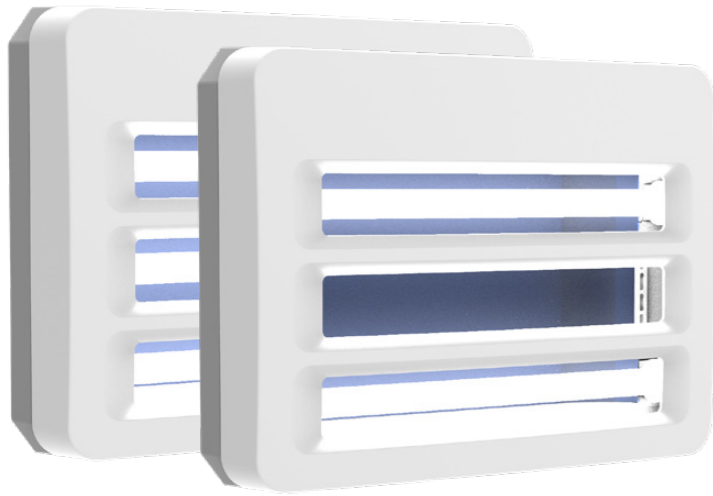
OMNIVEO

Professional insect light traps



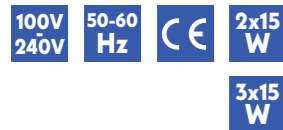
www.pestfix.co.uk

FK240-2 FK240-3



Fluorescent lamp technology

Lamp wattage	2x 15 W / 3x 15 W Astron UV-A shatterproof
Applicable area	50 - 100 m ² (2x 15 W) / 80 - 150 m ² (3x 15 W)
CE certification	CE / EMC / LVD / RoHS / REACH / ISO 9001 compliant
IP Rating	21 or 65
Mounting position	Wall
Glue board	YES



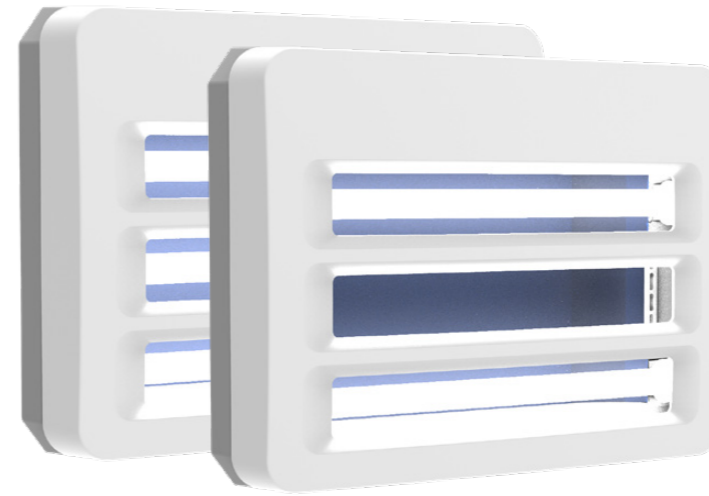
WALL MOUNTING

Glue board discreetly placed behind the lamp.
 Easy to service, direct access to lamps and glue board.
 2 years guarantee on mechanical & electrical performance
optional: Philips electronic dimmable Eco Ballast

For use in shops and restaurants and dry industrial environments.

OMNIVEO 2/3

FK240-LED2-SC FK240-LED3-SC



SMART counting technology with LED or Fluorescent lamps



Lamp wattage	2x 15 W or 3x 15 W Astron UV-A shatterproof or 2x 15 W or 3x 15 W Astron UV-A LED
Applicable area	50 - 100 m ² (2x 15 W) / 80 - 150 m ² (3x 15 W)
Certification	CE / EMC / LVD / RoHS / REACH / ISO 9001 compliant
IP Rating	21 or 65
Mounting position	Wall
Glue board	YES

WALL MOUNTING

Camera module monitors over 80% of landing area
 System communication via Bluetooth, LTE-M sim-chip with connection via KPN Netherlands
 Back-up battery can store data up to over 1 year
 Status of unit via built in multi color LED indicator
 Data storage in protected area (Netherlands KPN), access via cloud software
optional - Communication with unit next to XG
optional - Philips electronic dimmable Eco Ballast

2 years guarantee on mechanical & electrical performance

OMNIVEO 2/3 SC

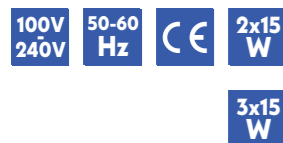
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FK240-LED2 FK240-LED3



LED technology offers clear advantages in terms of efficiency (lower energy consumption) and its footprint (compactness)

Lamp wattage	2x 15 W Astron UV-A LED / 3x 15 W Astron UV-A LED (needs only 2x or 3x 11 Watt to offer the same UV-A output)
Applicable area	50 - 100 m ² (2x 15 W) / 80 - 150 m ² (3x 15 W)
CE certification	CE / EMC / LVD / RoHS / REACH / ISO 9001 compliant
IP Rating	21 or 65
Mounting position	Wall
Glue board	YES



WALL MOUNTING

Effective coverage of areas up to 150 m² (3 lamps version)
 Glue board discreetly placed behind the lamp.
 Energy saving UV-A LED technology offers over 49 kW of savings per lamp per year.
 An average lifespan of 3 years (25.000 hrs) with this LED lamp
 Environmental friendly: no restricted chemicals used
 2 years guarantee on mechanical & electrical performance
 Easy to service, direct access to lamps and glue board.

For use in shops and restaurants and dry industrial environments.

OMNIVEO 2/3 LED

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Special features

- Magnetic click system for open/close the cover
- More types of glueboard available, thanks to the 3 positions to lock glue board



OMNIVEO SMART CONTROL

INSECTS, CAUSING DISEASE AND INFECTIONS

Flying insects are a serious threat in the industry. These insects cause diseases, infections and decay.

And by consuming - or nesting in - stored products, these are no longer suited for consumption or production.

As a result the global industry suffers from losses, which go over 10 billions of Euro's. To assist the pest control market in their quest for better and faster information on the flying insect infestation level in any premises.

We developed an insect counting system, which can count insects and provide info on this in real time.

DATA

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Periodically the data coming from the Smart Control units are collected and compiled on the server and the actual insect infestation level is calculated. Alarm levels can also be pre-programmed.

When this alarm level is reached, the info is relayed to a service technician, who can take immediate action and drive up to the client, where he can carry out a root cause analysis at the time when it is best suited: directly at the beginning of a potential infestation problem.

ECO BALLAST (optional)

Eco ballast technology offers flexible UV-A power output:

- Day insects need 100% UV-A power for fast attraction
- Night insects need 10% UV-A power for fast attraction

A built in timer regulates the UV-A power:

Day mode is from 06.00 to 22.00 hrs
(16 hrs) = 100% UV-A power

Night mode is from 22.00 hrs to 06.00 hrs
(8 hrs) = 10 % UV-A power

Energy saving per 15 Watt lamp:

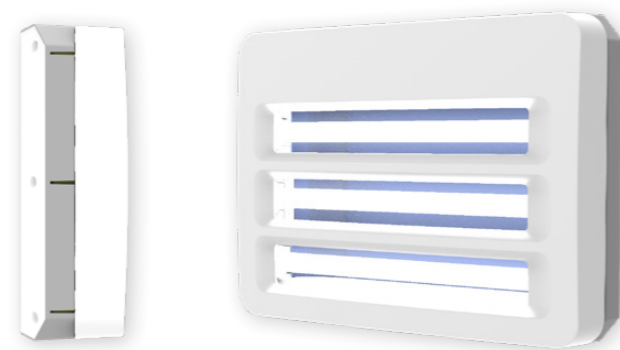
365 days x 8 x 90% x 15 Watt = 39.420 Watt

Savings per unit:

2 lamped unit: 79 kW
3 lamped unit: 118 kW

THE SYSTEM

- **FLEXIBLE SERVICE** Offered when it is most needed. Control module is also executed with a bluetooth link up.
- **FAST PROCESSING OF DATA**
- **HISTORICAL DATA IS RETAINED**



Communication module for connection via the 2G network for the App and managementsystem.



- 2 or 3 tubes 15 Watt UV-A shatterproof / 2 or 3 LED ASTRON Tubes
- **IP 21 or IP 65** (Suited for use in dry or wet areas)
- Reaching CE/ RoHS / REACH / ISO 9001 norm
- Recyclable parts



Bluetooth communication with App.



(OPTION) Eco ballast technology offers flexible UV-A power output.



Camera module for the detection of insects

UV-A LAMPS (shatterproof)

or



15 Watt Astron UV-A LED up to 40.000 hrs (5 years) of effective use.

or



15 Watt Astron UV-A up to 8.750 hrs (1 year) of effective use.

A CAMERA MODULE

Camera	High speed HR camera
Image capturing	In real time, up to 75 t/second
Board surveillance	≥ 60% of the board surface is monitored
Communication	Bluetooth to smartphone App (Android and iOS)
Traceability	Unique identifier (serial nr.) on module
Lifetime	Lifetime expectancy is 40.000 hrs

The camera monitors the insect activity in the insect light trap and registers all insects which land on the centrally placed glue board. These data are registered by the processor and via the communication module these are periodically relayed to a cloud server.

CLOUD SERVER

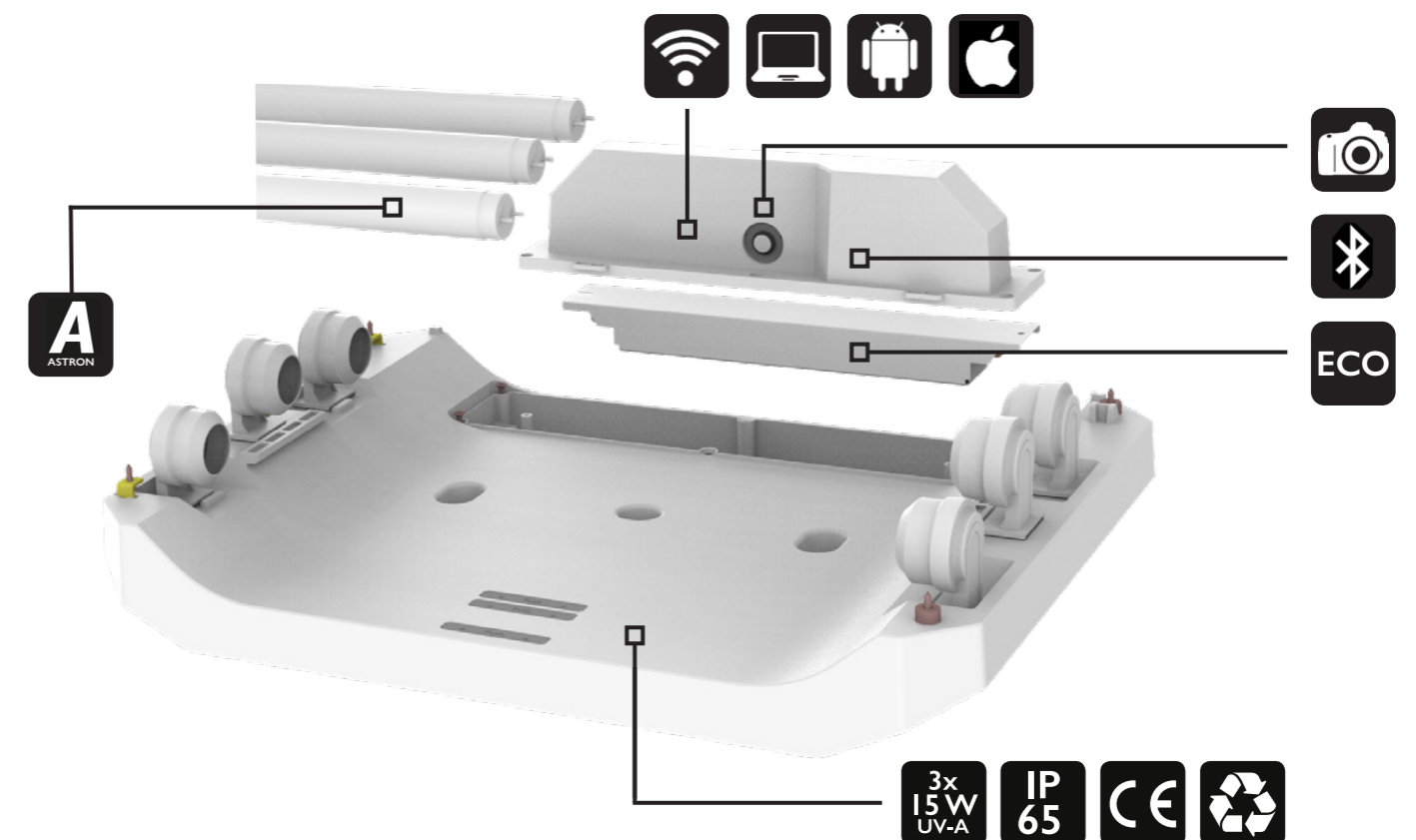
This cloud server can be accessed by the user via any computer or smart phone.

The cloud server provides access to a portal, developed by Alcochem Hygiene and her IT partner, where the incoming data can be processed and visualised in a flexible way.

A COMMUNICATION MODULE

Transmittance	Over the 2G network + LTE-M (via sim card)
Antenne	Internal
Installment	Factory placed or retrofit (in the field)
Data collection	Via Cloud, API of Bluetooth
Data send	Amount of insects caught per time annum Alarm level (soft & hard) Lamp replacement status Failure mode unit
Traceability	Unique identifier (serial number) on module
Safety aspect	Data encrypted and protected

Once a connection with a smart phone is established, the smart control App will present full details on the technical status of the unit and present the insect trend analysis.



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FLUORESCENT UV-A 15 WATT

In close partnership with Philips and Astron, Alcochem Hygiene has developed a full range of powerful UV-A lamps, used for insect trap applications. These lamps can be categorised in following lamp series:



A. The Long-life Philips UV-A lamps

These lamps are the Philips signature lamps and represent the very best available in the market

- A guaranteed 2 year life time
- A high UV-A output of around 80 % after 2 years of operational use
- The most "green" lamps available, due its extremely low use of mercury
- ISO 9001 production standard
- Manufactured in Europe
- Available in 15 Watt and 18 Watt UV-A straight lamp execution



B. The standard Philips UV-A lamps

These lamps are the standard Philips lamps and offer a reliable UV output

- A guaranteed 1 year life time
- A high UV-A output of around 60 % after 1 year of operational use
- Environmental friendly production, meets all environmental regulations
- ISO 9001 production standard
- Manufactured in Europe
- A wide range of various UV-A lamp executions are available



C. The Astron UV-A lamps

Astron is the Greek word for "Bright Star", which is exactly what these lamps offer. The Astron UV lamps are exclusively made for us and offer a reliable UV output

- A guaranteed 1 year life time
- A high UV-A output of around 60% after 1 year of operational use
- Environmental friendly production, meets all environmental regulations
- ISO 9001 production standard
- Manufactured in Europe
- And available for the best price, without compromising on quality & performance
- Available in 15 and 18 watt UV-A straight lamp or 18 & 36 Watt UV-A PL-L execution

All lamp series are available in a non-shatterproof and shatterproof execution.

The shatterproof coating used on all our UV-A lamps meet following specifications:

- A UV-A transmittance of minimum 95 % after 2 years of operational use.
- Drop test proof up to a drop height of 3 metres
- Genuine FEP coating, with a thickness of 0,3 mm
- Meet the EN 61549 Standard



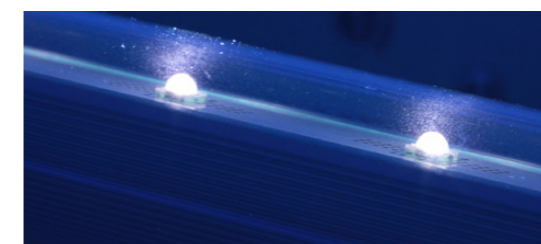
A LED UV-A 15 WATT - **ASTRON**^{UV} (FK234-ST)

Recently special LED's have entered the market, which have the ability to generate ultraviolet light; UV-A LED's. These special LED's form the heart of a new generation UV-A lamps; the **ASTRON UV LED 15 Watt lamp**. The fact that the name of this new LED lamp mentions 15 Watt lies in the fact that this lamp replaces a Fluorescent 15 Watt lamp and for this it only needs 11 Watts to offer the same UV-A output performance

Advantages **ASTRON**^{UV} LED 15 Watt lamp

- The **ASTRON UV LED 15 Watt lamp** is designed for low power consumption and high brightness.
- There are no harmful substances in the **ASTRON UV LED 15 Watt lamp**. This is an eco-friendly product.
- The **ASTRON UV LED 15 Watt lamps** complies to the int. standards and are perfectly safe to use.
- Specially designed single ultraviolet wavelength, optimised for insect control. The perfect replacement lamp for the 15 Watt mercury lamp.
- The **ASTRON UV LED 15 Watt lamp** does not require a ballast and operates when connected directly to the mains^{*1}.
^{*1} (Spec: 100-240 V ~ 50-60 Hz)
- The **ASTRON UV LED 15 Watt lamp** only consumes 11 Watt and offers significant energy savings over the Fluorescent 15 Watt lamp. (see the table here below)
- The **ASTRON UV LED 15 Watt lamp** has an operational lifetime of 25.000 hrs (3 years of constant use^{*2})
- The **ASTRON UV LED 15 Watt lamp** uses class A LED's which comply to the highest standards. This ensures for a trouble free usage.
- The **ASTRON UV LED 15 Watt lamp** is executed in a full shatterproof executed design (no glass is used)
- Guarantee period: 2 years, return to base

^{*2} After 25.000 hours a loss in UV-A output is to be expected of 30 %



Technical specifications

No	Lamp and ballast combination	Typical energy consumption per hour (W)	Energy consumption per year (kW) (8760 hrs)	Energy saving of the ASTRON ^{UV} LED 15 Watt lamp (kW)
1	Fluorescent 15 Watt lamp and high frequency ballast	16.5	145	49
2	Fluorescent 15 Watt lamp and magnetic ballast	20	175	79
3	ASTRON ^{UV} LED 15 Watt lamp (with internal driver)	11	96	

ASTRON^{UV}
INSECT CONTROL LAMPS

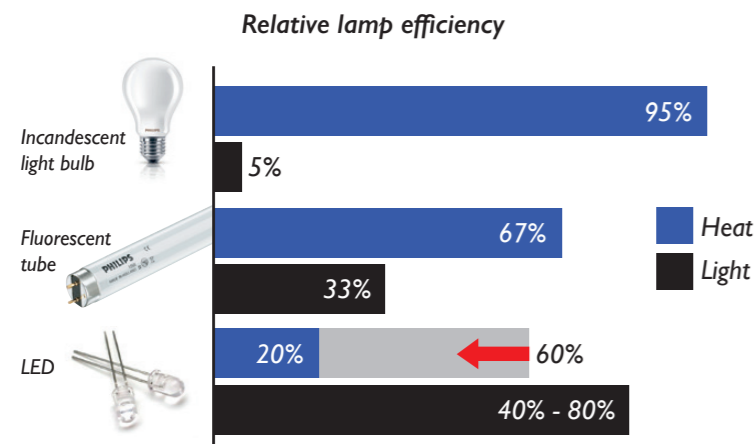
OPERATING THE LAMPS - INTRODUCTION INTO THE LAMP EFFICIENCY

In the past century different technologies have been used to generate light. Nowadays insect traps are commonly executed with the fluorescent lamps, used to generate the much desired UV-A light. But a new technology is gaining ground fast.

A quick run-down on the various technologies used to create light:

- A. Incandescent light bulbs were used for over 100 years to generate light. Due to its low efficiency (a typical 5% efficiency was found in these lamps) this technology was banned out.
- B. Fluorescent lamps have a higher energy to light conversion and can offer up to 33% efficiency. However: This efficiency level is only achieved by lamp producers who control every aspect of the lamp production process and only for those lamp types which have the lamp process conditions to reach this efficiency level. (like the 15 watt lamp ranges, produced by Philips)

Details on the current range of our fluorescent lamps can be found on page 18



The efficiency of light production varies by type of lamp (bulbs) employed.

- C. In the past decades a new technology has entered the market; LED technology. This technology can offer a energy to light conversion of as high as 80%. For the UV-A LED it may take some time before we reach this efficiency level, but current UV-A LED technology has already proven to be more efficient than fluorescent lamps. And this technology will continue to improve its energy to light efficiency ratio over time

UV-A LAMP TECHNOLOGY - LAMP COATING TECHNOLOGY

Lamps used in areas where food consumption, food production or preparation takes place need to be executed in such a way that consequences from a possible glass breakage are safely addressed.

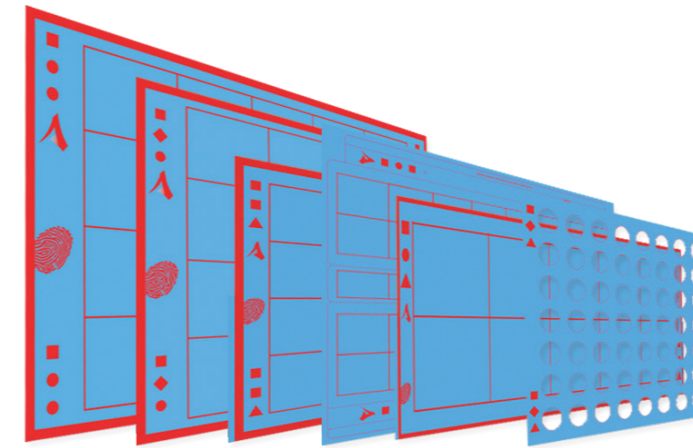
Glass fragment may never enter into food products. The same standard is commonly used in industries, who also consider glass

breakage as an unacceptable risk factor: pharmaceuticals, cosmetics and many other industries.

For this reason the UV-A lamps are executed with a special sleeve, which is produced from UV-A transparent material: the so-called shatterproof coating.

The shatterproof material used is very strong, durable and has a high UV-A transparency rate. It can fulfil the related national standard BS 6062 and DIN 52290:

- 1) 30.000 hours lifetime.
- 2) Ensures that at a lamp drop from 5 meters, the glass fragments will be retained in the sleeve.
- 3) More than 95% transparent for UV-A light.
- 4) Melting point over 280 Celsius degree.



Not only the glue needs to be of excellent quality, but also the actual board must be optimized for this task. It needs to be strong enough and may not deform over time.

What does the Blue board offer:

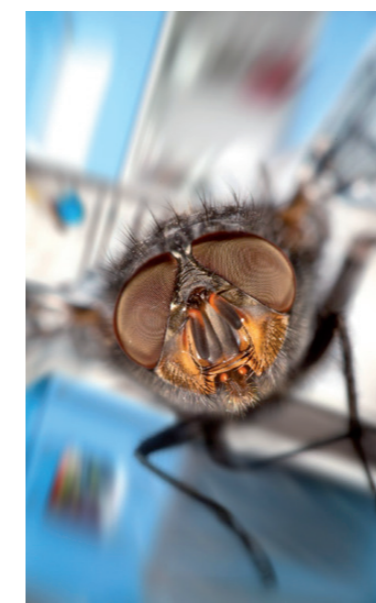
- Water protected varnish on all sides of the board
- Grid structure allows fast (digital) monitoring
- Powerful UV-A resistant, non-dripping glue
- Identification code on the board (glueboardscanner.com)
- Blue colour offers discretion and fast monitoring
- A full range of boards, suited for a wide variety of insect control units.

GLUE BOARDS

The adhesives used for the boards are glues with very special characteristics designed to grab and then hold very light but often strong insects over an extended period of time under very demanding conditions.

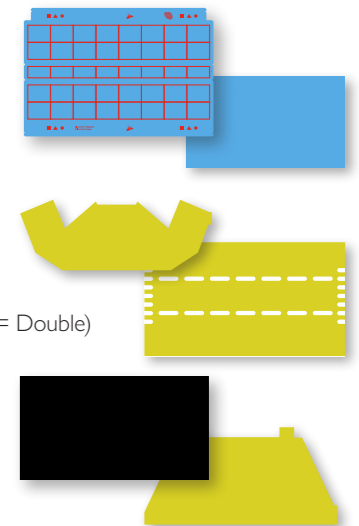
Insects are extremely light and create little or no pressure on the areas where they land. If the designated landing area is a glue board, then we still want these insects retained on the board with no change of escaping. In addition to this demand we want the boards to be handled easy and at a wide variety of temperatures.

From close to 0° C up to 65° C, the glue boards will have to perform its function: keep the insects on the board.



Specifications

Glue type	: UV-A table glue
Storage temperature	: 0 - 40 degrees Celsius
Storage time	: Max. 18 months under dry conditions
Field temperature	: 0 - 60 degrees Celsius
Packing	: Packed per 10 pieces in a set
Bulk packing	: Packed per 10 sets/export box
Material	: Plastic, paper or Corex
Glue sides	: Glue on 1 side (S = Single) or 2 sides (D = Double)
Color paper boards	: executable up to full color
Color plastic boards	: executable with one color
Corex boards	: not printable
Blue board execution	: available upon request
Production	: Acc. ISO 9000 standards



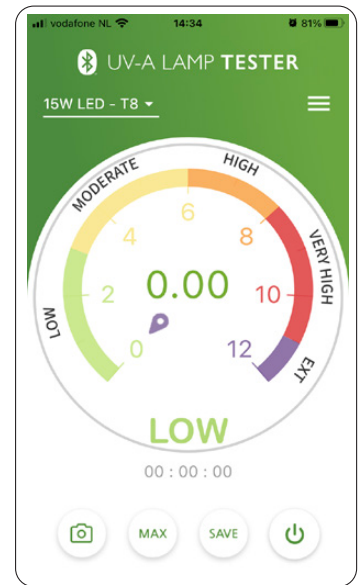
BLUETOOTH UV-A TESTER



Analysing UV-A lamps with your Smartphone It's a tiny, beautifully designed with Aluminum body, UV tester that connects to your phone to measure and analyse the UV-A light from UV lamps. Prior to taking a UV-A reading, make sure that the lamp has been working for at least 5 minutes.

Depending on the ambient temperature, it can take up a few minutes for a UV-A lamp to reach its full UV-A output.

Model	: UV-A lamp tester BT
Suitable for	: Measuring UV-A lamps (lamp types as shown in the App)
Interface	: Bluetooth 4.2 BLE (Bluetooth Low Energy)
UV-A	: measuring range 310-400 nm
Accuracy	: +/- 20 %
Battery	: CR2032 Button cell
Size	: 40 x 80 x 17 mm
Weight (incl. bumper)	: 38 gram
Smartphones	: operating Android 4.2 or higher, iOS 8.0 or higher
Supported Bluetooth	: 4.0 or higher
Material bumper	: Silicone
Approval	: CE approved
Protection level	: IP20
Storage temperature	: 5-60 °C
Guarantee	: 1 year return to base on electrical failures



UV-A METER

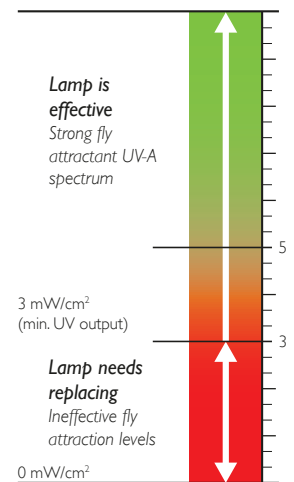


The improved UV-A meter is able to measure the level of the UV-A light given off by a UV-A lamp. Flying insects are drawn towards UV-A light with a specific wavelength peak of 360 nm. The higher the amount of UV-A light generated by a UV-A lamp, the more efficiently it will attract flying insects.

The Alcochem UV-A Meter can be used as both a powerful selling tool, and an important quality assurance tool in HACCP Food Safety Programs.

The UV-A meter is an absolute UV-A meter. This means that it can accurately measure the absolute UV-A light intensity from any lamp, or other UV-A source.

This is measured in mW/cm² (milliwatts per square centimetre). Since UV-A light is invisible to the human eye, this is most important, as it is the only means by which you can determine if a lamp is actually working or not.



The use of the UV-A meter allows:

- Confirmation as to whether a lamp is emitting UV-A light and how much.
- Determination of whether a lamp needs to be changed.
- Compliance for HACCP audits.
- Comparison of the amount of UV-A light given off by different lamps.



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