BELTRON®

OVER 50 Years - QUALITY MADE IN GERMANY - www.beltron.de

Innovative
uv technology

sustained • efficient and save • for a clean future

Beltron GmbH
over 50 years Quality „Made in Germany"

BELTRON produces high quality machinery and equipment for many applications and markets. Generally our partners are from the graphic industry as well as from other industrial applications. Besides the printing and reproduction market and the electronic industry, the bran "**BELTRON**" has been approved in many other fields, such as solar industry, nano technology, uv-hardening of glue, medical industry, glass industry, automobile industry, production of furniture or other wood based applications, manufacturing of concrete plates, are just a few examples from **BELTRON**'s manifold partner portfolio.

Beltron GmbH
more than 50 years your partner in UV technology

Which criteria should your new business partner have to become interesting for you?

Besides requirements like quality and reliability, competence, readiness and partnership are the most important features. As many of our business partners confirm, **BELTRON** fulfils these requirements. Of course – our equipment stands in accordance with all main regulations, such as CE, DIN or SMEMA. Over 50 years quality and experience combined with "**Made in Germany**" – which is still **BELTRON**'s policy.

Design and engineering in 3D and most modern CNC and laser production enables us to fulfil all partner specific requirements. Your needs and wishes must not be what we have – our possibilities must be according to your needs. Furthermore **BELTRON** offers his customers a minimized spare parts stock as we have our own spare parts storage. More than 20.000 different articles including UV lamps etc. are available for your requirements.Besides a strong network of local partners, **BELTRON** has business relations to customers all over the world in almost all countries.

Want to try? Your Satisfaction is our target...
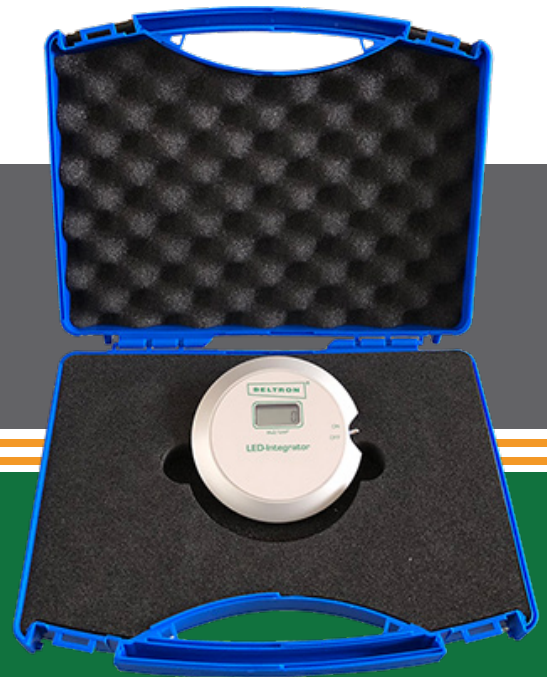
LED-UV Integrator

Application:

Due to its compact and flat design, the Beltron LED UV Integrator is particularly well suited for continuous flow dryers with a low throughput height. Areas of application include, for example:

- LED / UV dryer
- PCB exposures
- Copying equipment

General:

The Beltron LED UV Integrator is a high-quality measuring device for determining the UV dose. On the back of the device a UV sensor is located, which detects the LED / UV radiation. The LCD display directly reflects the measured value in millijoules per square centimeter (mJ / cm²). The LED UV integrator is powered by a 3.6 volt lithium battery, which is located inside the device. By using particularly energy-saving circuits, the battery lasts for about 10,000 operating hours. A special filter blocks the visible as well as the IR range of the radiation so that only the desired spectral range will be measured.

Handling:

To take a measurement, proceed as follows:

1.) Activate the LED UV integrator by pressing the toggle switch.
    An irradiation value (dose) of 0 mJ / cm² is displayed on the LCD-Display.

2.) Turn the LED UV integrator in a position that the sensor faces to the radiation source.
    Then let the integrator run under the UV source respectively allow it to illuminate for the desired time

3.) After completion of the exposure, the measuring value is shown on the display e.g. 550 mJ/cm².

4.) After completing the measurement, switch off the device via the toggle switch. When switching on again, the LED UV integrator is reset to „zero" for the next measurement

Please note that the housing temperature must not exceed 110 ° for 10 seconds!
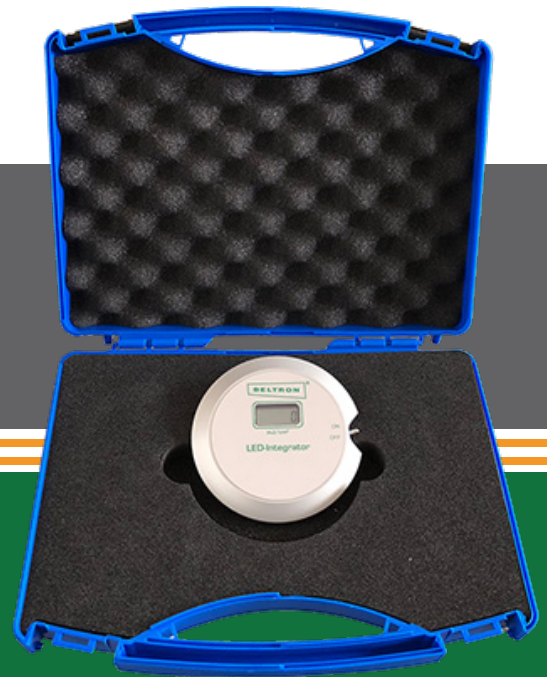
The LED-UV Integrator is used successfully in:
printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

These are just a few examples from the various partner portfolio of Beltron.

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- PCB exposures
- Copying equipment

Technical Information LED-UV Integrator

Display: 6-digit LCD-display 0 - 999999 mJ/cm²

Dimensions: 80 x 145 x 12 mm

Weight: approx 500 gr.

Switch: On / Off / automatic Off

Power supply: 3,6 V Lithium-Battery

Power consumption: 100µA (10.000 operating hours)

Casing: Aluminium casing chromium plated

Spectral measuring range: 250 - 410 nm (other ranges upon request)

The LED-UV Integrator is used successfully in:
printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

These are just a few examples from the various partner portfolio of Beltron.

UV-Integrator Typ I

Application:

The BELTRON UV-Integrators are used for registering of uv energy in uv-curers, uv-dryers, uv-exposure units, printing plate exposure systems, and other graphic machines. By testing the uv energy and modification of the production process false exposures and waste of material could be avoided.

Design:

On the bottom side of the instrument a sensor is located who registers the uv energy. Special filter and foto diods absorb the visible as well as the infrared spectral range, so only the needed spectral range is measured. At the end the uv energy is display on a lcd display. A storage bag is included in the scopy of supply.

To secure a optimal utilization, we offer to our customers a regular calibrating service. This special offer is normally done within a few hours in our workshop and is based on measuring values of official calibration laboratories.

Technical Information UV-Integrator Typ I

Display: 6-digit LCD-display 0 - 999999 mJ/cm²

Dimensions: 80 x 145 x 12 mm

Weight: approx 500 gr.

Switch: On / Off / automatic Off

Power supply: 3,6 V Lithium-Battery

Power consumption: 100µA (10.000 operating hours)

Casing: Aluminium casing chromium plated

Spectral measuring range: 250 - 410 nm (other ranges upon request)

The UV Integrator Typ I is used successfully in:
printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

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UV-Integrator Typ D

Application:

The BELTRON UV-Integrators are used for registering of uv energy in uv-curers, uv-dryers, uv-exposure units, printing plate exposure systems, and other graphic machines. By testing the uv energy and modification of the production process false exposures and waste of material could be avoided.

Design:

On the bottom side of the instrument a sensor is located who registers the uv energy. Special filter and foto diods absorb the visible as well as the infrared spectral range, so only the needed spectral range is measured. At the end the uv energy is display on a lcd display. A storage bag is included in the scopy of supply.

To secure a optimal utilization, we offer to our customers a regular calibrating service. This special offer is normally done within a few hours in our workshop and is based on measuring values of official calibration laboratories.

Technical Information UV-Integrator Typ D

Display: 6-digit LCD-display 0 - 999999 mJ/cm²

Dimensions: 80 x 145 x 12 mm

Weight: approx 500 gr.

Switch: On / Off / automatic Off

Power supply: 3,6 V Lithium-Battery

Power consumption: 100µA (10.000 operating hours)

Casing: Aluminium casing chromium plated

Spectral measuring range: 250 - 410 nm (other ranges upon request)

The UV Integrator Typ D is used successfully in:
printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

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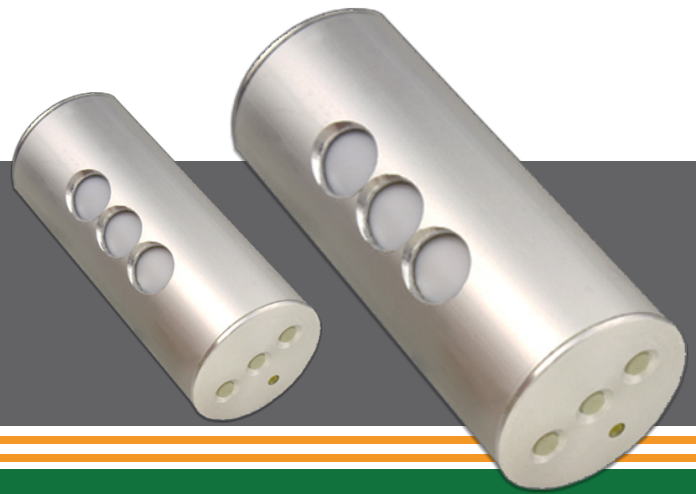
UV-Stick
I & II

Application:

Special Measurement device for investigation of the UV-dosage, UV-intensity and temperature.

Application:

The Beltron UV-Stick is obtainable by voting as a UV-A, -B, -C – multichannel measurement device. The new developed device has its operation area at industrial UV-Hardening utilizations and shows the total intensity of the radiation in mW/cm² and the dosage in mJ/cm². The UV-Stick enables the operator to record the UV-intensities and UV-dosages as well as the temperatures (UV-Stick II) in tubes / bottles.

During the pass through, the sensor is mounted by a dummy, which is provided by the customer. The small size and extremely small weight allow UV-measurements under realistic conditions. For a measurement, several integrated UV-sensors will be used. Via microprocessors the UV-intensity at various UV-areas will be measured separately but at the same time. The UV-dosage will be calculated separately in the single areas via the time of radiation. The user gets not only information about the total energy, but he can record the UV-areas individually. The measurement sensors are located side by side on the cylinder shaped wall of the housing of the UV-stick.

All data will be stored on a Micro-SD-memory-card and can be uploaded on a PC, edited and saved. This enables e.g. to draw up and record a history based on the measurement values of one or several lamps by way of graphics.
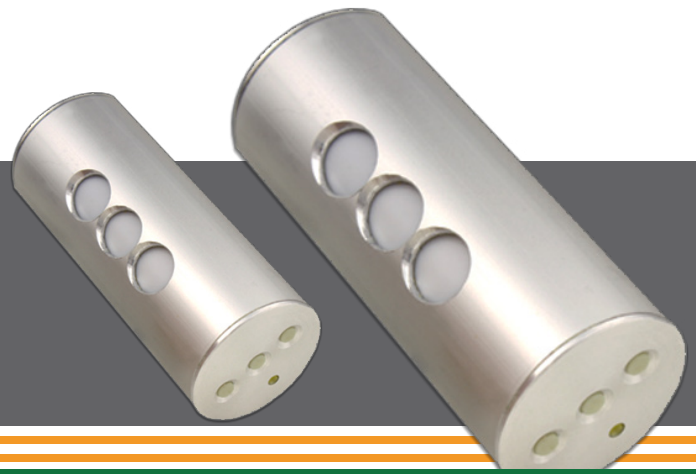
The UV Stick I & II is used successfully in:
printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

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Technical Information UV-Stick I & II

A B C	UV-Stick I	UV-A 315 – 410 nm
A B C Temp.	UV-Stick II	UV-B 280 – 315 nm
		UV-C 230 – 280 nm

Range of measurement	1 to 2.000 mW/cm²
Sampling Rate	5 msec (200/sec)
Memory cycle	90 sec.
Triggertime	120 sec.
Accuracy of measurement	± 5%
Position Photodiods	Within approx. 10 mm distance on the perpendicular axis.
Display	/
Energy supply	LiPO 3,7 V fix installed, Auto-Off after 1 minute The charging capacity is sufficient for approx. 100 measurements. Charging takes place via the attached USB-Cabel.
Sizes / Weight	Diameter 25 mm, L= 60 mm / ca. 40 g
Housing	Aluminium. The housing must be protected by the customer against intensive UV-radiation and heat, i.e. via a suitable mounting or shield.
Range of temperature measurement	0 to 110° C / 32 to 230° F (only UV Stick II)
Operation temperature	0 to 45° C / 32° to 113° F , Surrounding max. 110 °C / 230 ° F for 10s
Scope of delivery	UV-Stick, Micro-SD-Card, USB-Cabel, PC-Software, Plastic transport box
Calibration	The calibration, which is traceable to PTB, occure in accordance to DIN EN ISO / IEC 17025 and will be confirmed by the attached certificate.

The UV Stick I & II is used successfully in:
printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

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UV-Meter

Application:

Equipments for simple intensity and control measurement of UV light. All types for the special UV ranges are based on the same base of construction and to differentiate in the spectral sensitivity of their measuring heads.

Application:

Equipments for simple intensity and control measurement of UV light. All types for the special UV ranges are based on the same base of construction and to differentiate in the spectral sensitivity of their measuring heads.

All measurements are expressed in mW/cm² in order to compare light sources or to check theevenness of the light emission. The display readings are setting by program.

Ideal application fields are the control of units for the exposuring of diazo, polymer, cromalin and daylight handling films in the graphic arts industry, suntan equipments, solarium, sterilization units and other fields of photobiology.

Funktion:
measuring light emissions of light sources effecting work

comparative measurement of other measuring points, e.g. in order to locate lighting fluctuations on large copies

comparative measurement of light sources to compare the light emission of new lamps to existing values

Equipment:

2 switch steps mW/cm² (not UV-A-Meter mini)

four-figure digital display

diode with spectral filter

9 V battery

The UV Meter is used successfully in:
printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

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UV-Meter

Application:

Equipments for simple intensity and control measurement of UV light. All types for the special UV ranges are based on the same base of construction and to differentiate in the spectral sensitivity of their measuring heads.

Technical Information UV-Meter

Art.-No.:	Typ	spectral sensitivity	max. reading
048.061	UV-Meter	315 - 420 nm, max. 365 nm	9999
048.062	UV-Meter-Diazo	350 - 460 nm, max. 410 nm	9999
048.011	UV-A-Meter	315 - 400 nm, max. 360 nm	9999
048.073	UV-B-Meter	280 - 315 nm, max. 300 nm	999,9
048.007	UV-C-Meter	230 – 280 nm, max. 254 nm	999,9

The UV Meter is used successfully in:
printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

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