INDIUM SENSOR

Elektronische Geräte für Industrie und Umwelt

Type X.15 Series

This type has been designed to meet high demands. It's equipped with a flat light entrance window made of Teflon (PTFE). This substance is translucent durable and resistant against environmental and radiation influences.

This series is perfectly suitable for indoor applications. The housing is made of aluminum and anodized scratch-proof in black.

INDIUM SENSOR

Elektronische Geräte für Industrie und Umwelt

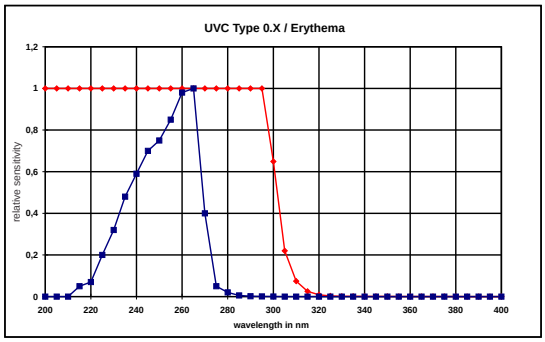
UVC measuring head type 0.15

UV-C- sensitivity

Long UV radiation (above 323 nm) makes people tan and has positive effects on the human immune system. Shorter UV-radiation in contrast may cause irreversible damage and is listed in a recommendation by CIE (Commission Internationale de l'Eclairage) which summarizes all action spectra that may cause damage to the human skin.
This recommendation is standardized in German DIN 5050.
A popular example is the UVI sunburn index.

UV-C-measuring-head type 0.15

The measuring head independently determines UV-C-radiation (from 220 nm - 280nm).
Measuring results are allowing immediate conclusions about medically and biologically relevant connections within this band of radiation. The measuring head is used in medicine, biological research, weather information and forecast systems, in climate research and for public information in general. The measuring head type 0.15 has an anodized aluminum housing suitable for indoor use. The window is made of PTFE. The values are cosine corrected.

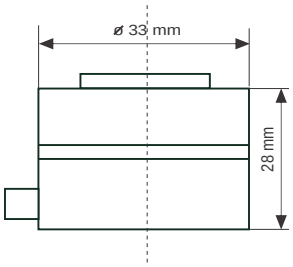


Technical specifications:

measuring range UV-C	0 - ca. 2000 mW/m²
spectr. sensitivity UV-C	220nm - 280nm
max. of spectr. sensitivity	265nm
sensor system	SiC interference filter
working temperature	-20°C - +60°C | -4 - +140°F
signal output	0V - 2V or otr. (as agreed)
power	+5V - +15V / <750µA
turn on time	< 1 s
turn off time	< 1 s
installation	2 screws M4 in the bottom
connector	sideward
window/diffusor	PTFE
direction char.of rad.	error f2 < 3%
linearity	< 1%
absolute error	< 10%
weight	50g | 2 oz

Specifications are subject to change without prior notice.

Dimensions:



Indium Sensor
Virchowstr. 7
15366 Neuenhagen
Germany
Tel: +49(0)3342 80239
Fax: +49(0)3342 207886

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Elektronische Geräte für Industrie und Umwelt

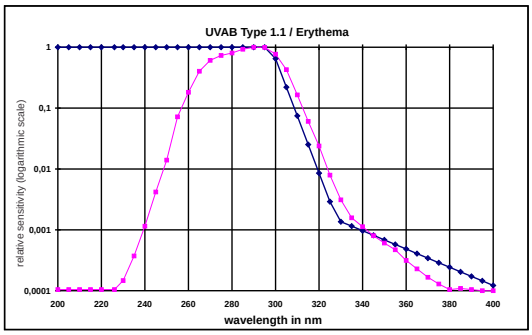
UV- E - measuring head type 1.15

UV-E- sensitivity

Long UV radiation (above 323 nm) makes people tan and has positive effects on the human immune system. Shorter UV-radiation in contrast may cause irreversible damage and is listed in a recommendation by CIE (Commission Internationale de l'Eclairage) which summarizes all action spectra that may cause damage to the human skin.
This recommendation is standardized in German DIN 5050.
A popular example is the UVI sunburn index.

UV-E measuring head type 1.15

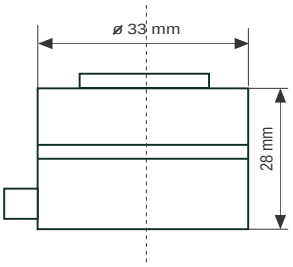
The measuring head independently determines UV-E-radiation (from 265 nm - 315 nm). Measuring results are allowing immediate conclusions about medically and biologically relevant connections within this band of radiation. The measuring head is used in medicine, biological research, weather information and forecast systems, in climate research and for public information in general. The measuring head type 1.15 has an anodized aluminum housing suitable for indoor use. The window is made of PTFE. The values are cosine corrected.



Technical specifications:

measuring range UV-E	0 - ca. 0.5 W/m²
spectr. sensitivity UV-E	265nm - 315nm
max. of spectr. sensitivity	297nm / 335nm
sensor system	SiC
working temperature	-20°C - +60°C | -4 - +140°F
signal output	0V - 2V or otr. (as agreed)
power	+5V - +15V / <750µA
turn on time	< 1 s
turn off time	< 1 s
installation	2 screws M4 in the bottom
connector	sideward
window/diffusor	PTFE
direction char.of rad.	error f2 < 3%
linearity	< 1%
absolute error	< 10%
weight	50g | 2 oz

Dimensions:



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Indium Sensor
Virchowstr. 7
15366 Neuenhagen
Germany
Tel: +49(0)3342 80239
Fax: +49(0)3342 207886

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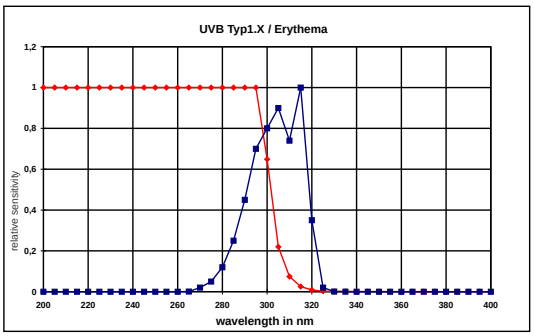
UV- B measuring head type 1B.15

UV-B- sensitivity

Long UV radiation (above 323 nm) makes people tan and has positive effects on the human immune system. Shorter UV-radiation in contrast may cause irreversible damage and is listed in a recommendation by CIE (Commission Internationale de l'Eclairage) which summarizes all action spectra that may cause damage to the human skin.
This recommendation is standardized in German DIN 5050.
A popular example is the UVI sunburn index.

UV-B measuring head type 1B.15

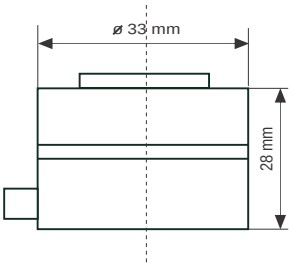
The measuring head independently determines UV-B-radiation from 280nm - 320nm.
Measuring results are allowing immediate conclusions about medically and biologically relevant connections within this band of radiation. The measuring head is used in medicine, biological research, weather information and forecast systems, in climate research and for public information in general. The measuring head type 1B.15 has an anodized aluminum housing suitable for indoor use. The window is made of PTFE. The values are cosine corrected.



Technical specifications:

measuring range UV-B	0 - ca. 5 W/m²
spectr. sensitivity UV-B	280nm - 320nm
max. spectr. sensitivity	315nm
sensor system	SiC interf. filter
working temperature	-20°C - +60°C | -4 - +140°F
signal output	0V - 2V or otr. (as agreed)
power	+5V - +15V / <750µA
time to switch on	< 1 s
time to switch off	< 1 s
installation	2 screws M4 in the bottom
connector	sideward
window/diffusor	PTFE
direction char.of rad.	error f2 < 3%
linearity	< 1%
absolute error	< 10%
weight	50g | 2 oz

Dimensions:



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Virchowstr. 7
15366 Neuenhagen
Germany
Tel: +49(0)3342 80239
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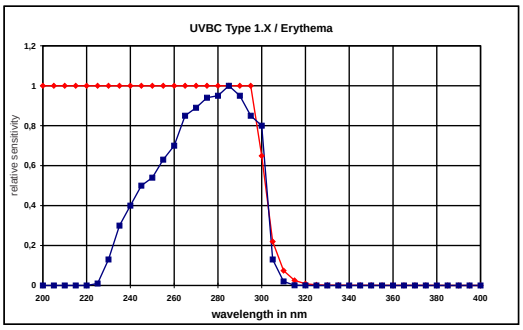
UV-B / UV-C measuring head type 1BC.15

UV-B- / UV-C- sensitivity

Long UV radiation (above 323 nm) makes people tan and has positive effects on the human immune system. Shorter UV-radiation in contrast may cause irreversible damage and is listed in a recommendation by CIE (Commission Internationale de l'Eclairage) which summarizes all action spectra that may cause damage to the human skin.
This recommendation is standardized in German DIN 5050.
A popular example is the UVI sunburn index.

UV-B / UV-C measuring head type 1BC.15

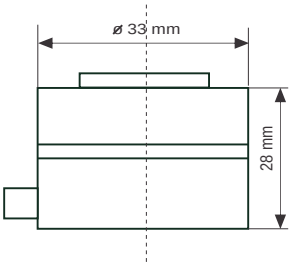
The measuring head determines radiation in the UVB and UVC spectral range.
Measuring results are allowing immediate conclusions about medically and biologically relevant connections within this band of radiation. The measuring head is used in medicine, biological research, weather information and forecast systems, in climate research and for public information in general. The measuring head type 1.BC15 features an anodized aluminum housing suitable for indoor use. The window is made of PTFE. The values are cosine corrected.



Technical specifications:

measuring range UV-BC	0 - ca. 0.5 W/m²
spectr. sensitivity UV-BC	230nm - 310nm
max. of spectr. sensitivity	285nm
sensor system	SiC interf. filter
working temperature	-20°C - +60°C | -4 - +140°F
signaloutput	0V - 2V or otr. (negotiable)
power	+5V - +15V / <750µA
time to switch on	< 1 s
time to switch off	< 1 s
installation	2 screws M4 in the bottom
connector	sideward
window/diffusor	PTFE
direction char.of rad.	error f2 < 3%
linearity	< 1%
absolute error	< 10%
weight	50g | 2 oz

Dimensions:



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Indium Sensor
Virchowstr. 7
15366 Neuenhagen
Germany
Tel: +49(0)3342 80239
Fax: +49(0)3342 207886

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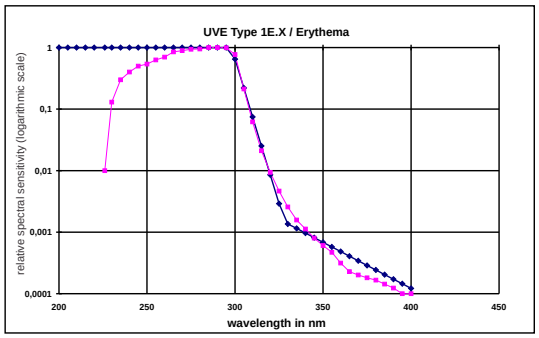
UV-E measuring head type 1E.15

UV-E sensitivity

Long UV radiation (above 323 nm) makes people tan and has positive effects on the human immune system. Shorter UV-radiation in contrast may cause irreversible damage and is listed in a recommendation by CIE (Commission Internationale de l'Eclairage) which summarizes all action spectra that may cause damage to the human skin.
This recommendation is standardized in German DIN 5050.
A popular example is the UVI sunburn index.

UV-E measuring head type 1E.15

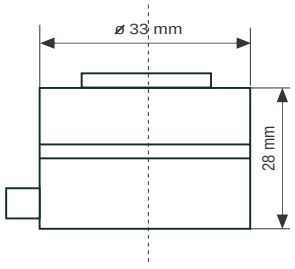
The measuring head determines radiation in the UV-E spectral range (Erythema).
Measuring results are allowing immediate conclusions about medically and biologically relevant connections within this band of radiation. The measuring head is used in medicine, biological research, weather information and forecast systems, in climate research and for public information in general. The measuring head type 1.E15 features an anodized aluminum housing suitable for indoor use. The window is made of PTFE. The values are cosine corrected.



Technical specifications:

measuring range UV-E	0 - ca. 0.5 W/m²
spectr. sensitivity UV-E	230nm - 310nm
max. of spectr. sensitivity	295nm
sensor system	SiC interf. filter
working temperature	-20°C - +60°C | -4 - +140°F
signaloutput	0V - 2V or otr. (negotiable)
power	+5V - +15V / <750µA
time to switch on	< 1 s
time to switch off	< 1 s
installation	2 screws M4 in the bottom
connector	sideward
window/diffusor	PTFE
direction char.of rad.	error f2 < 3%
linearity	< 1%
absolute error	< 10%
weight	50g | 2 oz

Dimensions:



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Indium Sensor
Virchowstr. 7
15366 Neuenhagen
Germany
Tel: +49(0)3342 80239
Fax: +49(0)3342 207886

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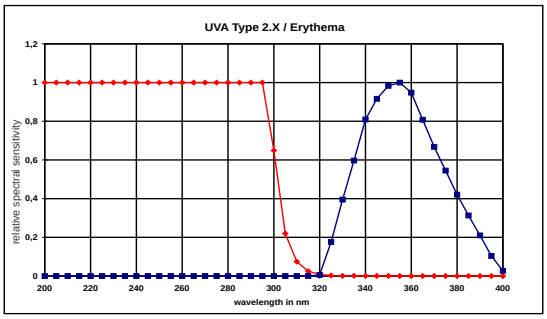
UV- A measuring head type 2.15

UVA sensitivity

Long UV radiation (above 313 nm) makes people tan and has positive effects on the human immune system. Shorter UV-radiation in contrast may cause irreversible damage and is listed in a recommendation by CIE (Commission Internationale de l'Eclairage) which summarizes all action spectra that may cause damage to the human skin.
This recommendation is standardized in German DIN 5050.
A popular example is the UVI sunburn index.

UVA measuring head type 2.15

The measuring head independently determines UV-A-radiation (global, from 310nm - 400nm).
Measuring results are allowing immediate conclusions about medically and biologically relevant connections within this band of radiation. The measuring head is used in medicine, biological research, weather information and forecast systems, in climate research and for public information in general. The measuring head type 2.15 features an anodized aluminum housing suitable for indoor use. The window is made of PTFE. The values are cosine corrected.

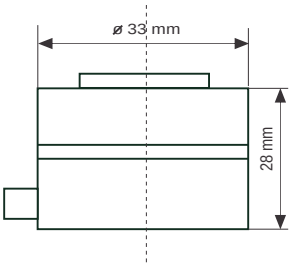


Technical specifications:

measuring range UV-A	0 - ca. 100 W/m²
spectr. sensitivity UV-A	310nm - 400nm
max. of spectr. Sensitivity UV-A	355nm
sensor system	SiC filter
working temperature	-20°C - +60°C | -4 - +140°F
signal output	0V - 2V or otr. (negotiable)
power	+5V - +15V / <750µA
turn on time	< 1 s
turn off time	< 1 s
installation	2 screws M4 in the bottom
connector	sideward
window/diffusor	PTFE
direction char.of rad.	error f2 < 3%
linearity	< 1%
absolute error	< 10%
weight	50g | 2 oz

Specifications are subject to change without notice.

Dimensions:



Indium Sensor
Virchowstr. 7
15366 Neuenhagen
Germany
Tel: +49(0)3342 80239
Fax: +49(0)3342 207886

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Elektronische Geräte für Industrie und Umwelt

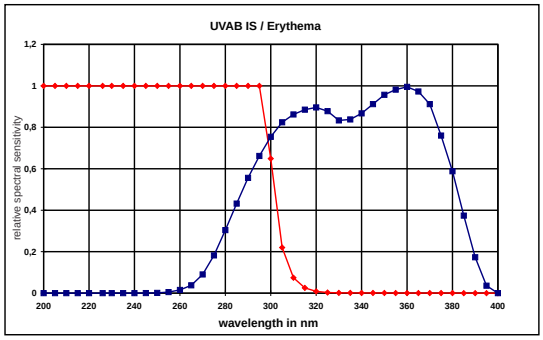
UV-A/UV-B measuring head type 2AB.15

UVA/UVB sensitivity

Long UV radiation (above 313 nm) makes people tan and has positive effects on the human immune system. Shorter UV-radiation in contrast may cause irreversible damage and is listed in a recommendation by CIE (Commission Internationale de l'Eclairage) which summarizes all action spectra that may cause damage to the human skin.
This recommendation is standardized in German DIN 5050.
A popular example is the UVI sunburn index.

UVA/UVB measuring head type 2AB.15

The measuring head independently determines UVA- and UVB-radiation (global, from 280nm - 400nm).
Measuring results are allowing immediate conclusions about medically and biologically relevant connections within this band of radiation. The measuring head is used in medicine, biological research, weather information and forecast systems, in climate research and for public information in general. The measuring head type 2AB.15 features an anodized aluminum housing suitable for indoor use. The window is made of PTFE. The values are cosine corrected.

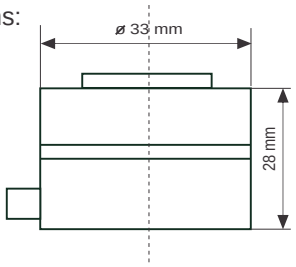


Technical specifications:

measuring range UV-AB	0 - ca. 150 W/m²
spectr. sensitivity UV-AB	280nm - 400nm
max. of spectr. sensitivity	365nm
sensor system	GaP
working temperature	-20°C - +60°C | -4 - +140°F
signal output	0V - 2V or otr. (negotiable)
power	+5V - +15V / <750µA
turn on time	< 1 s
turn off time	< 1 s
installation	2 screws M4 in the bottom
connector	sideward
window/diffusor	PTFE
direction char.of rad.	error f2 < 3%
linearity	< 1%
absolute error	< 10%
weight	50g | 2 oz

Specifications are subject to change without notice.

Dimensions:



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Virchowstr. 7
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Fax: +49(0)3342 207886

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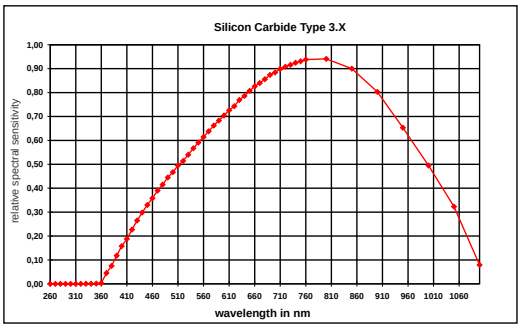
Global radiation measuring head type 3.15

Global radiation

All diffuse and direct solar radiation reaching the surface of the earth is called global radiation.
It ranges from short (300nm (UV-B)) to long (5000 nm (IR)) wavelength.

Global measuring head type 3.15

The sensor detects almost 90% of sunlight in the range of wavelength between 400 nm and 1100 nm and is covering the range of the uv-, vis- and some of the ir-light.
The measuring results are allowing conclusions about medical and biological connections by comparing to other spectral ranges.
The measuring head can be used in medical and biological research, in weather information and forecast systems, in climate research, in agriculture and for public information in general.
The measuring head type 3.15 features an anodized aluminum housing suitable for indoor use. The window is made of PTFE. The values are cosine corrected.

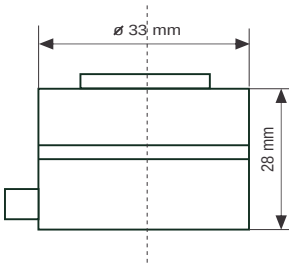


Technical specifications

measuring range	0 - ca. 1300 W/m²
spectr. sensitivity	380 nm - 1100 nm
max. of spectr. sensitivity	780 nm
sensor system	Silicon
working temperature	-20°C - +60°C | -4 - +140°F
signal output	0V - 2V or otr. (negotiable)
power	+5V - +15V / <750µA
turn on time	< 1 s
turn off time	< 1 s
installation	2 screws M4 in the bottom
connector	sideward
window/diffusor	PTFE
direction char.of rad.	error f2 < 3%
linearity	< 1%
absolute error	< 10%
weight	50g | 2 oz

Specifications are subject to change without prior notice.

Dimensions:



Indium Sensor
Virchowstr. 7
15366 Neuenhagen
Germany
Tel: +49(0)3342 80239
Fax: +49(0)3342 207886

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V-Lambda (Luminosity) radiation sensor type 4.15

V-Lambda radiation

Luminosity (V-Lambda) covers the spectral range of visible light, it corresponds to the sensitivity of the human eye. The measured value is allowing clues about the perceived brightness of light.

Spectral range stretches from the end of ultravoilet (400nm) to the beginning of infrared (720). Maximum sensitivity is reached around 555nm.

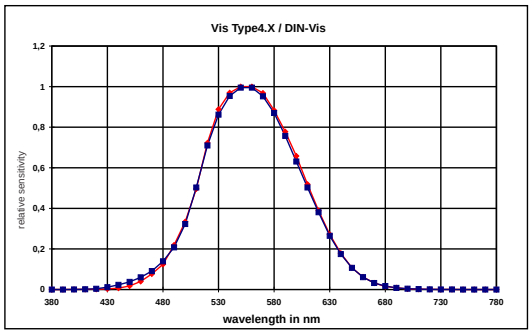
Detected exposure rates can easily be converted into Illuminance in Lux.

Measurements in this range do have a great significance for illumination projects and workplace design, for example.

Luminosity measuring head type 4.15

V-Lambda sensors are used in medical research, agricultura, automotive industry and measurement of artificial light. Spectral sensitivity of the sensor closely resembles the one of the human eye.

The measuring head type 4.15 features a weatherproof aluminum housing suitable for indoor use. The results are cosine corrected.

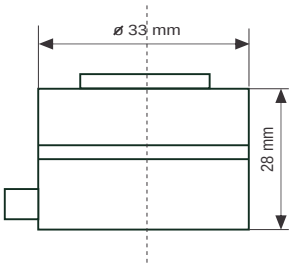


Technical specifications

measuring range Vis	0 - ca. 170 kLux or other
spectr. sensitivity Vis	380-720 nm
max. of spectr. sensitivity	555 nm
sensor system	Si interf. filter
working temperature	-20°C - +60°C | -4 - +140°F
signal output	0V - 2V or otr. (negotiable)
power	+5V - +15V / <750µA
turn on time	< 1 s
turn off time	< 1 s
Installation	2 screws M4 in the bottom
connector	sideward
window/diffusor	PTFE
direction char.of rad.	error f2 < 3%
linearity	< 1%
absolute error	< 10%
weight	50g | 2 oz

Specifications are subject to change without prior notice.

Dimensions:



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Germany
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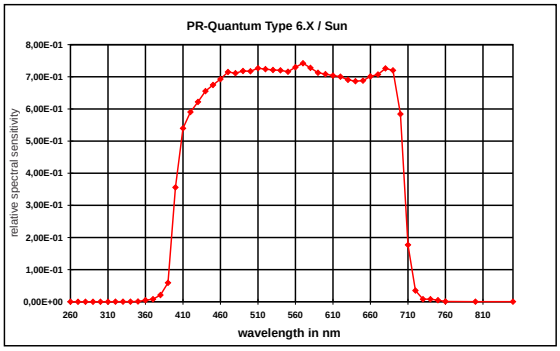
Quantum radiation measuring head type 6.15

Quantum Radiation

The ability to absorb light radiation is required for herbal life, chlorophyll has a special significance in that process.
If the intensity of light is too low, the plant will not get enough energy to grow, if the intensity is too high the plant will emit energy as fluorescence. This is an indication for the growth conditions of a plant.
If the light is too strong the plant will get dry and burned.

Quantum sensor type 6.15

Sensitivity corresponds to the absorption spectrum of chlorophyll. Measuring results are allowing immediate conclusions about the conditions for plant growth.
The quantum measuring head may be used for optimizing photochemical processes of open-land and greenhouse agriculture.
The sensor is used in agricultural research, gardening, agriculture as well as in education.
The device features an anodized aluminum housing suitable for indoor use. The window is made of PTFE. The values are cosine corrected.

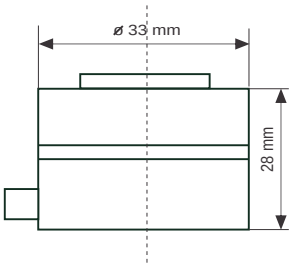


Technical specifications

measuring range	0 - ca. 3000 µmol/sm²
spectr. sensitivity	380 nm - 720 nm
max. of spectr. Sensitivity	420 nm and 700 nm
sensor system	Si interf. filter
working temperature	-20°C - +60°C | -4 - +140°F
signal output	0V - 2V or otr. (negotiable)
power	+5V - +15V / <750µA
turn on time	< 1 s
turn off time	< 1 s
installation	2 screws M4 in the bottom
connector	sideward
window/diffusor	PTFE
direction char.of rad.	error f2 < 3%
linearity	< 1%
absolute error	< 10%
weight	50g | 2 oz

Specifications are subject to change without prior notice.

Dimensions:



Indium Sensor
Virchowstr. 7
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Germany
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Fax: +49(0)3342 207886

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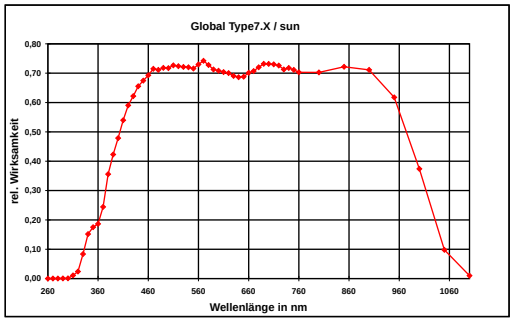
Global radiation measuring head type 7.1

Global radiation

The complete direct and diffuse sun radiation hitting the ground is called global radiation. The spectral range extends from the short-wave range at 300 nm (UV-B) to the long-wave range at 5000 nm (IR). The radiation energy above 1000nm however is less then 10% only.

Global measuring head type 7.15

The sensor is able to detect almost 90% of the sunlight in the range between 400 nm and 1100 nm and includes UV, VIS and some of IR.
Measuring results are allowing immediate conclusions about medically and biologically relevant connections by comparing them to other spectral ranges.
The measuring head may be used in medicine, biological research, weather information and forecast systems, in climate research and for public information in general.The aluminum housing features an anodized aluminum housing suitable for indoor use. The window is made of PTFE. The values are cosine corrected.

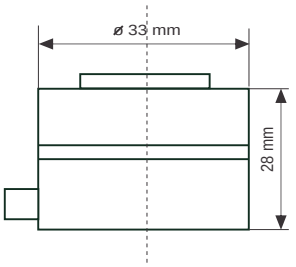


Technical specifications

measuring range	0 - ca. 1300 W/m²
spectr. sensitivity	400 nm - 1100 nm
max. of spectr. Sensitivity	780 nm
sensor system	Si + filter
working temperature	-20°C - +60°C | -4 - +140°F
signal output	0V - 2V or otr. (negotiable)
power	+5V - +15V / <750µA
turn on time	< 1 s
turn off time	< 1 s
installation	2 screws M4 in the bottom
connector	sideward
window/diffusor	PTFE
direction char.of rad.	error f2 < 3%
linearity	< 1%
absolute error	< 10%
weight	50g | 2 oz

Specifications are subject to change without notice.

Dimensions:



Indium Sensor
Virchowstr. 7
15366 Neuenhagen
Germany
Tel: +49(0)3342 80239
Fax: +49(0)3342 207886

INDIUM SENSOR

Elektronische Geräte für Industrie und Umwelt

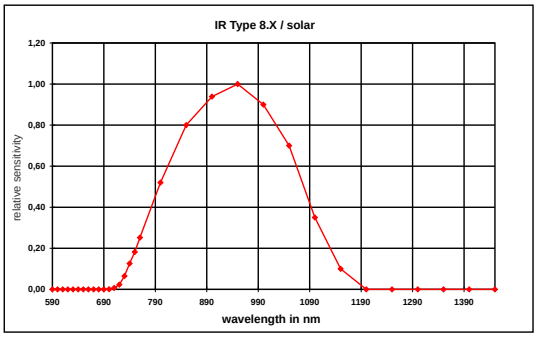
Infrared radiation measuring head type 8.15

Infrared radiation

The direct and diffuse solar radiation in the range from 700 nm up to 5000 reaching the ground is called infrared radiation.

Infrared measuring head type 8.15

The sensor detects almost 30 % of the sunlight in the range of 800 nm to 1100 nm including the most relevant part of IR.
Measuring results are allowing immediate conclusions about medically and biologically relevant connections by comparing them to other spectral ranges.
The measuring head may be used in medicine, biological research, weather information and forecast systems, in climate research and for public information in general.
The measuring head may be used in medicine, biological research, weather information and forecast systems, in climate research and for public information in general.
The aluminum housing is anodized suitable for indoor use, the window is made of PTFE.
The measuring results are cosine corrected.

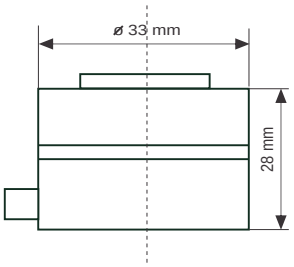


Technical specifications

measuring range IR	o- ca. 400W/m²
spectr. sensitivity IR	700nm - 1000nm
max. of spectr. Sensitivity IR	950nm
sensor system	Si + filter
working temperature	-20°C - +60°C | -4 - +140°F
signal output	0V - 2V or otr. (negotiable)
power	+5V - +15V / <750µA
turn on time	< 1 s
turn off time	< 1 s
Installation	2 screws M4 in the bottom
connector	sideward
window/diffusor	PTFE
direction char.of rad.	error f2 < 3%
linearity	< 1%
absolute error	< 10%
weight	50g | 2 oz

Specifications are subject to change without prior notice.

Dimensions:



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Fax: +49(0)3342 207886