



INDIUM SENSOR

Elektronische Geräte für Industrie und Umwelt

Type X.7 Series



This type is meeting higher demands. It's equipped with a dome made of blown optical glass. This material is not UV-penetrable but long term resistant against radiation and environmental influences. The dome serves well as a light entrance window for radiation measuring devices. A few warpings due to the method of manufacturing only slightly increase the cosine error. Receiving characteristics are tested with great care.

Silicone-sealed housing parts are protecting the interior from dust and make it airtight. Humidity is reduced by a desiccant.

The aluminum housing is anodized for scratch-resistance and long term use. It's natural metal color prevents from overheating when exposed to direct sunlight.



Global radiation measuring head type 3.7

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.

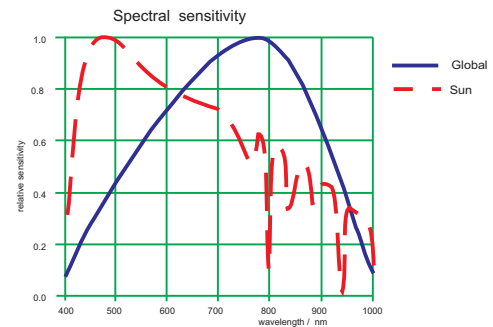
Global measuring head type 3.7

The sensor detects almost 90% of sunlight in the wavelength range 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 3.7 has a weatherproof aluminum housing. The results are cosine corrected. The dome is made of glass. This device can be equipped with 4 different output signal variations.



Technical specifications

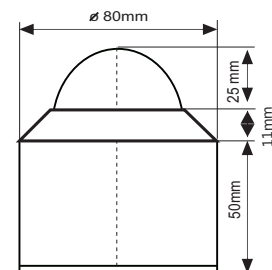
Measuring range global	0 - ca. 1300 W/m ²
Spectr. sensitivity	400 nm - 1100 nm
Max. spectral sensitivity	780 nm
Working temperature	-20°C - +60°C
Signal output	0V - 5V/0V-10V*/
Power supply	4mA-20mA/0mA-20mA** +9V - +24V/*+14V-+24V **RL(0-100Ohm)

Installation
2 screws M4
in the bottom
downward

Connector cable	
Diffusor material	PTFE
Dome material	opt. Glass
Cosine correction	error f2 < 3%
Linearity	< 1%
Abs. error	< 10 %
Dark voltage (E=0)	< 10 mV
Weight	ca. 300 g

Specifications are subject to change without prior notice.

Dimensions:



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Virchowstr. 7
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INDIUM SENSOR

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Visual radiation measuring head type 4.7

V lambda radiation

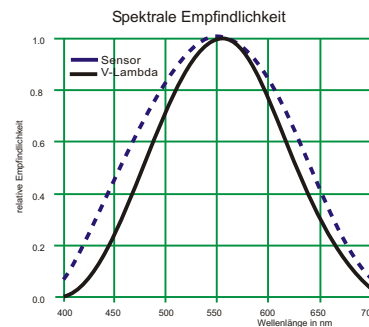
The spectral range of light visible to the human eye is called V-Lambda-Radiation.

The measured value is a depiction of the subjectively perceived brightness. Spectral range extends from the end of UV-light at 400nm to the start of IR-light at 720nm with a maximum at 555nm. The measured value of illuminance in W/m^2 can easily be converted into Lux.

Measuring results are important for any projects involving the human perception of light and the illumination of workplaces.

V lambda radiation sensor type 4.7

The measuring head may be used in medical and biological research, weather information and forecast systems, climate research, agriculture and engineering. The measuring head type 4.7 has a weatherproof aluminum housing. The dome is made of optical glass. The values are cosine corrected.

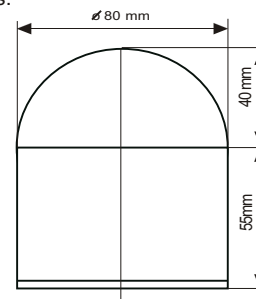


technical specification

Measuring range V-lambda	0 - ca. 170 klx
spectral sensitivity	360 nm - 760 nm
max. spectral sensitivity	550 nm
signal output	-20°C - +60°C
power supply	0V - 2V
turn on time	+10V - +18V / <500µA
turn off time	< 1 s
installation	< 12 s
connector	2 screws M4 in the bottom downward
diffusor	PTFE
dome	PMMA
cosine correction	error f2 < 3%
linearity	< 1 %
absolute error	< 10 %
Voltage (E=0)	< 10 mV
weight	ca. 300 g

Specifications are subject to change w/o notice.

Dimensions:



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INDIUM SENSOR

Elektronische Geräte für Industrie und Umwelt

Global radiation measuring head type 7.7

Global radiation

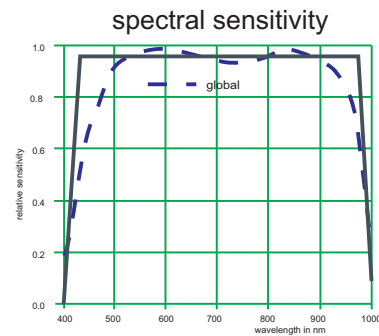
The complete direct and diffuse sun radiation hitting the ground is called global radiation. The spectral range extends from the short-wave range at 300 nm (UV-B) to the long-wave range at 5000 nm (IR). The radiation energy above 1000nm however is less than 10% only.

Global measuring head type 7.7

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 is weatherproof. The dome consists of blown optical glass. Measuring results are cosine corrected.

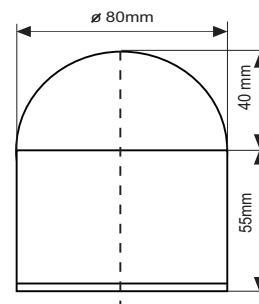


Technical specifications

measuring range global	0 - approx. 1200 W/m ²
spectral sensitivity	400 nm - 1100 nm
max. spectral sensitivity	780 nm
working temperature	-20 °C - +80 °C
signal output	0 V - 2 V
power supply	+10 V - +18 V
installation	2 screws M4 in the bottom of the case downward
connector	PTFE
diffusor	optical glass
dome	error f2 < 3%
cosine correction	< 1%
linearity	< 10 %
abs. error	< 10 mV
dark voltage (E=0)	approx. 300 g
weighth	

Specifications are subject to change without prior notice.

Dimensions:





INDIUM SENSOR

Elektronische Geräte für Industrie und Umwelt

Global radiation measuring head type 10.7

Global radiation

All direct and diffuse solar radiation reaching the surface of the earth is called global radiation. Spectral range reaches from 300nm (UVB) to about 5000nm (IR).

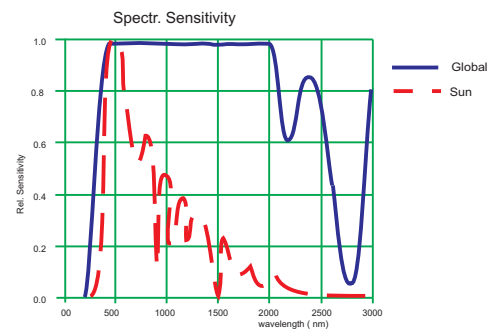
Global measuring head type 10.7

The sensor is able to detect almost 90% of the solar radiation spectrum between 300 and 1100 nm (UV, VIS, some of IR)

Measuring results are allowing conclusions about medical and biological interdependencies in comparison to other spectral ranges.

The measuring head is suitable for use in medicine, biological research, weather information and forecast systems, in climate research and for public information in general.

The measuring head type 10.7 has a weatherproof aluminum housing. The dome is made of blown optical glass. The values are cosine corrected. This device can be equipped with 4 different signal output varieties.

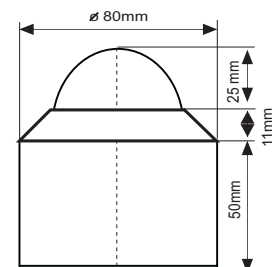


Technical specifications

Measuring range global	0 - ca. 1300 W/m ²
Spectr. sensitivity	380 nm - 2800 nm
Max. spectral sensitivity	380 nm - 2500 nm
Working temperature	-20°C - +60°C
Signal output	0V - 5V/0V-10V*/
Power supply	4mA-20mA/0mA-20mA** +9V - +24V/*+14V-+24V **RL(0-100Ohm)
Installation	2 screws M4 in the bottom downward
Connector cable	PTFE
Diffusor material	opt. Glass
Dome material	error f2 < 3%
Cosine correction	< +/-5%
Linearity	< +/-10 %
Abs. error	ca. 300 g
Weight	

Specifications are subject to change without notice.

Dimensions:



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