

## Global Radiation Probe Head FLA 633 GS



- Measuring head in anodized aluminium housing with a plastic dome that is transparent to UV light.
- Rain and splash-proof system, additionally with desiccant to prevent dome from inside condensation.
- Particularly suitable for outdoor measurements, e.g. in medical and biological research, weather information and forecast systems, climatology, agriculture and for general public information.

### Technical Data

Measuring range:	0.4 to approx. 1200 W/m <sup>2</sup>	Cos correction:	error f2 < 3 %
Spectral sensitivity:	400 nm to 1100 nm	Linearity:	< 1 %
Maximum spectral sensitivity:	780 nm	Absolute error:	< 10 %
Signal output:	0 V to 2 V	Residual voltage: (E = 0)	< 10 mV
Power supply:	+5 V to +15 V	Nominal temperature:	22 °C ±2 °C
Mounting:	2 screws M4, in base plate Bolt circle Ø 50 mm	Operating temperature:	-20 °C to +60 °C
Cable passage:	downwards	Dimensions:	Dome diameter: 40 mm Housing diameter 80 mm Height 53 mm +10 mm (conical ring) +20 mm (dome)
Housing:	anodized aluminium	Weight:	approx. 300 g
Diffusor:	PTFE		
Dome:	PMMA		

### Option

Longer cable Total length = 5 meters

### Order no.

OA9613K05

### Type (including test protocol)

Weather-proof measuring head for measuring the global radiation, incl. ALMEMO® connector with 1.5 m cable

Factory calibration KL90xx radiation for sensor, see chapter „Calibration certificates“

### Order no.

FLA633GS

## Illuminance measuring head FLA 633 VLM



- Measuring head in anodized aluminum housing, with UV-transparent plastic dome.
- Rain-proof, splash-protected system, with desiccant to prevent condensation forming on the inside of the dome.
- Especially suitable for measuring operations outdoors, e.g. in medical, biological, and climate research, in weather information forecast systems, in agriculture, and for the purposes of general information for the public.
- The spectral sensitivity of the receiver corresponds approximately to that of the human eye.

### Technical Data

Measuring range:	0.05 to 170 klux (approx. 250 W/m <sup>2</sup> )	Cos correction:	error f2 <3 %
Spectral sensitivity:	360 to 760 nm	Linearity:	<1 %
Max. spectral sensitivity:	550 nm	Absolute error:	<10 %
Signal output:	0 to 2 V	Residual voltage: (E = 0)	<10 mV
Power supply:	+5 to +15 V	Nominal temperature:	22 ± 2 °C
Mounting:	2 screws M4, in base plate Bolt circle Ø 50 mm	Operating temperature:	-20 to +60 °C
Cable passage:	downwards	Dimensions:	Dome diameter: 40 mm Housing diameter 80 mm Height 53 mm +10 mm (conical ring) +20 mm (dome)
Housing:	anodized aluminum	Weight:	approx. 300 g
Diffusor:	PTFE		
Dome:	PMMA		

### Type (including test protocol)

Weather-resistant measuring head for measuring the illuminance including cable, 1.5 m, and ALMEMO® connector

Factory calibration KL90xx radiation for sensor, see chapter „Calibration certificates“

### Order no.

FLA633VLM

## UVA Radiation Probe Head FLA 633 UVA



- Measuring head in anodized aluminium housing with a plastic dome that is transparent to UV light.
- Rain and splash-proof system, additionally with desiccant to prevent dome from inside condensation.
- Particularly suitable for outdoor measurements, e.g. in medical and biological research, weather information and forecast systems, climatology, agriculture and for general public information.

### Technical Data

Measuring range:	0.03 to approx. 100 W/m <sup>2</sup>	Cos correction:	error f2 < 3 %
Spectral sensitivity:	310 to 400 nm	Linearity:	< 1 %
Maximum spectral sensitivity:	355 nm	Absolute error:	< 10 %
Signal output:	0 V to 2 V	Residual voltage: (E = 0)	< 10 mV
Power supply:	+5 V to +15 V	Nominal temperature:	22 °C ±2 °C
Mounting:	2 screws M4, in base plate Bolt circle Ø 50 mm	Operating temperature:	-20 °C to +60 °C
Cable passage:	downwards	Dimensions:	Dome diameter: 40 mm Housing diameter 80 mm Height 53 mm +10 mm (conical ring) +20 mm (dome)
Housing:	anodized aluminium	Weight:	approx. 300 g
Diffusor:	PTFE		
Dome:	PMMA (transparent to UV)		

### Type (including test protocol)

Weather-proof measuring head for measuring the UVA radiation including cable, 1.5 m, and ALMEMO® connector

Factory calibration KL90xx radiation for sensor, see chapter „Calibration certificates“

### Order no.

**FLA633UVA**

## UVB Radiation Probe Head FLA 633 UVB



- Measuring head in anodized aluminium housing with a plastic dome that is transparent to UV light.
- Rain and splash-proof system, additionally with desiccant to prevent dome from inside condensation.
- Particularly suitable for outdoor measurements, e.g. in medical and biological research, weather information and forecast systems, climatology, agriculture and for general public information.

### Technical Data

Measuring range:	0.02 to approx. 50 mW/cm <sup>2</sup>	Cos correction:	error f2 < 3 %
Spectral sensitivity:	265 to 315 nm	Linearity:	< 1 %
Maximum spectral sensitivity:	297 nm	Absolute error:	< 10 %
Signal output:	0 V to 2 V	Residual voltage: (E = 0)	< 10 mV
Power supply:	+5 V to +15 V	Nominal temperature:	22 °C ±2 °C
Mounting:	2 screws M4, in base plate Bolt circle Ø 50 mm	Operating temperature:	-20 °C to +60 °C
Cable passage:	downwards	Dimensions:	Dome diameter: 40 mm Housing diameter 80 mm Height 53 mm +10 mm (conical ring) +20 mm (dome)
Housing:	anodized aluminium	Weight:	approx. 300 g
Diffusor:	PTFE		
Dome:	PMMA (transparent to UV)		

### Type (including test protocol)

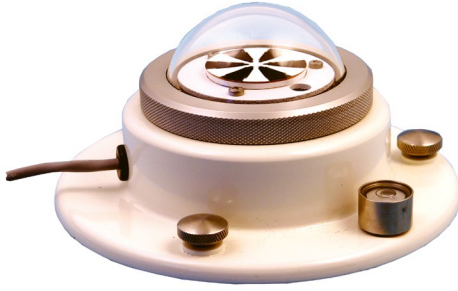
Weather-proof measuring head for measuring the UVB radiation including cable, 1.5 m, and ALMEMO® connector

Factory calibration KL90xx radiation for sensor, see chapter „Calibration certificates“

### Order no.

**FLA633UVB**

## Star Pyranometer FLA 628 S



- Star pyranometer, according to Dirmhirm, for measuring the global radiation, the sky radiation and the short-wave radiation.
- The accuracy corresponds to the „First class“ according to WMO and ISO 9060.
- Independent from ambient temperature through differential temperature measurement.
- Cut precision glass cupola for shielding from external environmental effects.
- Levelling by 3 setting screws and an integrated bubble.

### Technical Data

Measuring range:	0 to 1500 W/m <sup>2</sup>	Nominal temperature:	22 °C ±2 °C
Resolution:	0.1 W/m <sup>2</sup>	Linearity:	<0.5 % (0.5 to 1330 W/m <sup>2</sup> )
Spectral range:	0.3 to 3 µm	Stability:	<1 % of the meas. range per year
Output:	approx. 15 mV/Wm <sup>-2</sup>	Settling time:	25 s (t <sub>90%</sub> )
Impedance:	approx. 35 ohms	Dimensions:	160 mm Ø, 75 mm high, hole circle: 134 mm Ø, holes: 8 mm Ø
Operative range:	-40 to +60 °C	Weight:	1 kg
Accuracy:	cosine effect + azimuth effect + temperature influence		
Cosine effect:	<3 % of measured value (0 to 80 ° inclination)		
Inclination azimuth effect:	< 3 % of meas. val.		
Temperature influence:	< 1 % of meas. val. (-20 to +40 °C)		

### Type (including test protocol)

Star pyranometer including 3 m cable with ALMEMO® connector and programmed calibration value  
Factory calibration KL90xx radiation for sensor (see chapter Calibration certificates)

### Order no.

**FLA628S**

### Other variants are available on request



Probe for measuring global radiation FLA 613 T1B11,  
3-mode sensor: It measures UVA, VIS, IRA radiation.  
Spectral sensitivity from 315 to 1100 nm



Probe for measuring global radiation FLA 613 GS-SDEK,  
This measures the global, direct, and diffused solar radiation  
(integrated shadow bar).  
Spectral sensitivity from 380 to 1100 nm