# **METEOROLOGY**

# **Global Radiation Probe Head Type FLA613GS**



- 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.

#### Type (including test protocol)

Weather-proof measuring head for measuring the global radiation, incl. ALMEMO<sup>®</sup> connector with 1.5m cabler Order No. FLA613GS

Technical Data:		
Measuring range:	0 to approx. 1200W/m <sup>2</sup>	
Spectral sensitivity:	400nm to 1100nm	
Maximum spectral sensitivity: 780nm		
Signal output:	OV to 2V	
Power supply:	+5V to +15V	
Mounting:	2 screws M4, in base plate	
Cable passage:	downwards	
Housing:	anodized aluminium	
Diffusor:	PTFE	
Dome:	РММА	
Cos correction:	error f2 < 3%	
Linearity:	< 1%	
Absolute error:	< 10%	
Residual voltage: $(E = 0)$	< 10mV	
Nominal temperature:	22°C ±2°C	
Operating temperature:	-20°C to +60°C	
Dimensions:	housing: 55 mm high	
	dome 40 mm high diameter: 80 mm	
Weight:	approx. 300 g	

## Radiation measuring head Type FLA613VLM



- Measuring head in anodized aluminum housing, with UVtransparent 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.

#### Types (including test protocol)

Weather-resistant measuring head for measuring the radiation intensity including cable, 1.5 m, and ALMEMO<sup>®</sup> connector **Order No. FLA613VLM** 

Technical Data:	
Measuring range :	0 to 170 klux (approx. 250 W/m2)
Spectral sensitivity :	360 to 760 nm
Max. spectral sensitivity :	550 nm
Signal output	0 to 2 V
Power supply :	+5 to +15 V
Mounting :	2 screws, M4, in base plate
Cable passage :	downwards
Housing :	anodized aluminum
Diffusor :	PTFE
Dome :	PMMA
Cos correction :	error f2 <3%
Linearity :	<1%
Absolute error :	< 10 %
Residual voltage $(E = 0)$ :	<10 mV
Nominal temperature :	22 ± 2 °C
Operating temperature :	-20 to +60 °C
Dimensions :	Housing : 55 mm high
	Dome : 40 mm high
	Diameter : 80 mm
Weight :	approx. 300 g

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# **METEOROLOGY**

# UVA Radiation Probe Head Type FLA613UVA



- 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.

**Type** (including test protocol) Weather-proof measuring head for measuring the UVA radiation including cable, 1.5 m, and ALMEMO<sup>®</sup> connector

Order No. FLA613UVA

## **Technical Data:**

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Measuring range:	0 to approx. 3mW/cm <sup>2</sup>	
Spectral sensitivity:	310 to 400nm	
Maximum spectral sensitivity: 335nm		
Signal output:	0V to 2V	
Power supply:	+5V to +15V	
Mounting:	2 screws M4, in base plate	
Cable passage:	downwards	
Housing:	anodized aluminium	
Diffusor:	PTFE	
Dome:	PMMA (transparent to UV)	
Cos correction:	error f2 < 3%	
Linearity:	< 1%	
Absolute error:	< 10%	
Residual voltage: $(E = 0)$	< 10mV	
Nominal temperature:	22°C ±2°C	
Operating temperature:	-20°C to +60°C	
Dimensions:	housing: 55 mm high dome 40 mm high diameter: 80 mm	
Weight:	approx. 300 g	

### UVB RadiationProbe Head Type FLA613UVB



- 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.

#### Type (including test protocol)

Weather-proof measuring head for measuring the UVB radiation including cable, 1.5 m, and ALMEMO<sup>®</sup> connector **Order No. FLA613UVB** 

#### **Technical Data:**

Measuring range:	0 to approx. $50\mu$ W/cm <sup>2</sup>	
Spectral sensitivity:	215 to 315nm	
Maximum spectral sensitivity: 335nm		
Signal output:	0V to 2V	
Power supply:	+5V to +15V	
Mounting:	2 screws M4, in base plate	
Cable passage:	downwards	
Housing:	anodized aluminium	
Diffusor:	PTFE	
Dome:	PMMA (transparent to UV)	
Cos correction:	error f2 < 3%	
Linearity:	< 1%	
Absolute error:	< 10%	
Residual voltage: $(E = 0)$	< 10mV	
Nominal temperature:	22°C ±2°C	
Operating temperature:	-20°C to +60°C	
Dimensions:	housing: 55 mm high dome 40 mm high diameter: 80 mm	
Weight:	approx. 300 g	

# **METEOROLOGY**

## Star Pyranometer Type FLA628S



- Star pyranometer, according to Dirmhirn, for measuring the global radiation, the sky radiation and the short-wave radiation.
- ▶ 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.
- Delivery including a factory calibration certificate.

**Type** (including test protocol) Star pyranometer including 3m cable with ALMEMO® connector and programmed calibration value

Order No. FLA628S

Technical Data:	
Measuring range:	0 to 1500W/m <sup>2</sup>
Resolution:	0.1W/m <sup>2</sup>
Spectral range:	0.3 to 3µm
Output:	approx. 15µV/Wm <sup>-2</sup>
Impedance:	approx. 35 $\Omega$
Operative range:	-40 to +60°C
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)
Nominal temperature:	22°C ±2°C
Linearity:	<0.5% (0.5 to 1330W/m <sup>2</sup> )
Stability:	<1% of the meas. range per year
Settling time:	25s (t95)
Dimensions:	160mm Ø, 75mm high, hole circle: 134mm Ø, holes: 8mm Ø
Weight:	1kg

#### Accessories:

Shadow belt with stand

Order No. ZB9628SB

#### **Barometric pressure** Measuring connector type FDA612SA Measuring module type FDA612MA





- Compact design allows direct plug-on to measuring instruments.
- ► High measurement accuracy through piezo-resistive pressure sensor.
- Suitable for operation with multi-channel measuring instruments and for position-indifferent measurements at stationary installations when used with extension cable.

#### Accessories:

Connecting cable for press. measuring module, 0.2m Order no. ZA9060AK1 Extension cable, 2m long Extension cable, 4m long

Order No. ZA9060VK2 Order No. ZA9060VK4



#### Type:

Barometric pressure

Measuring connector Measuring module

Order No. FDA612SA Order No. FDA612MA

### **Technical Data:**

Measuring range:	700 to 1050 mbar (total range 0 to 1050 mbar)
Accuracy:	±0.5% (typ. 0.1%) of fin. val.
Nominal temperature:	22°C ±3K
Overload capacity:	max. 2-fold measuring range
Air humidity:	10 to 90% non-condensing
Temperature drift:	max. 1% of final value (typ. ± 0.6%)
Dimensions: Measuring module Measuring connector	37 x 36 x 22mm 90 x 20 x 7.6 mm
Hose connection:	Ø 5mm, 12mm long
Sensor material:	aluminium, nylon, silicone, silica gel, brass

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