Meteo M&R

radiation & light

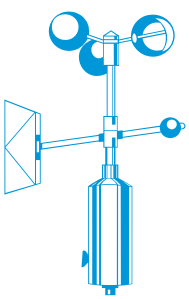
GS-WV pyranometer

SOLAR RADIATION MEASUREMENT

MADE EASY AND ECONOMICAL

FOR INDUSTRIAL, AGRICULTURAL AND HVAC APPLICATIONS

The GS-WV pyranometer is the ideal instrument for solar energy measurements for building and greenhouse automation and irrigation planning. The solar radiation sensor is responsive to the full solar spectrum, 300..2800 nm. With an internal signal amplifier and maintenance free watertight housing.



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Pyranometer GS-WV

The GS-WV pyranometer is the ideal instrument for solar energy measurements for building and greenhouse automation and irrigation planning.

The solar radiation sensor is responsive to the full solar spectrum, 300..2800 nm. With an internal signal amplifier and maintenance free watertight housing the unit is easy to use.

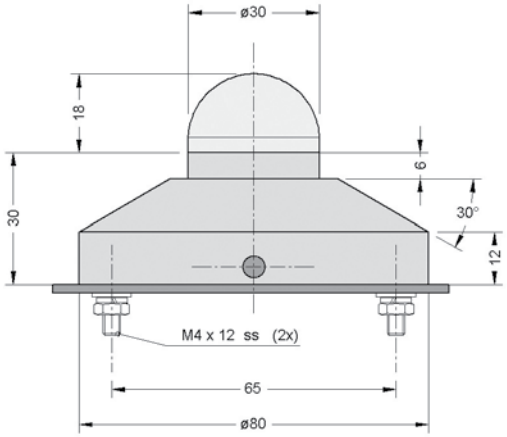
This low-cost, high quality sensor fits industrial, agricultural and HVAC applications perfectly. There is no need for expensive external ampli-fiers or special PLC modules. The sensor needs no other maintenance then incidently cleaning the quartz dome.

made to measure

TECHNICAL SPECIFICATIONS

measuring principle	temperature differences
spectral range	300..2800 nm
power supply	10..30 VDC
power consumption	< 1 W
impedance	<50 Ohm
sensitivity	~ 2 mV per W/m2
housing	IP67
accuracy daily sum	better than 10%
zero offset	<20 W/m2
connections	3-draads: supply, output, ground

DRAWING



ZONNESTRALING

The total solar radiation or solar heat reaching the earth surface directly and through reflection (i.e. by clouds) is called global radiation.

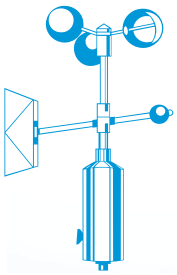
For practical purposes one likes to know the radiation sum over a certain period or the flux, i.e. the amount of radiation per second per square meter.

SOLAR RADIATION UNITS:

quanity	name	symbol
energy	Joule	J
energy flux	Joule per sec. per m^2	$J/s/m^2$
	or Watt per m^2	W/m^2

APPLICATIONS

- heat control in buildings
- crop growth control
- earth surface energy balances
- albedo measurement
- sunshine duration calculation (WMO)
- solar energy panel efficiency evaluation
- Makkink Reference evaporation



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