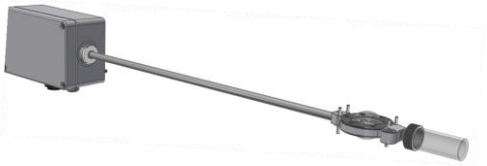
SOLAR RADIATION
(Net radiation: incoming and outgoing short-wave)
Net radiometer



- Net radiation measurement. Net between the radiation coming from the sky and radiation from the ground (reflected and emitted) within 0.3...50 µm wave band
- Based on thermopile technology, assuring fast response time and low sensibility to the wind speed which is the main issue for other technologies as "black-body" radiometers
- Versions with µV output and 4...20 mA
- Accessories for RS485-Modbus RTU output from PRRDA0100A model

Net radiometers are sensors for measuring net radiation, i.e. the difference between the incoming sun and sky radiation and the ground-reflected short-wave and ground-emitted long-wave radiation. The primary sensitive element is a high sensitivity thermopile.

Technical Specifications

PN	PRRDA0100A	PRRDA0130
		
Output	µV/W/m^2	0/4...20 mA
Power supply	-	10...30 V AC/DC
Power consumption	-	<0.4 W
Max. load	-	300 Ohm
EMC	-	EN 61326-1: 2013
Range	-1500...1500 W/m^2	-150...1500 W/m^2
Cable	L=10 m	7 pin IP65 watertight connector
Installation (on Ø 50 mm pole)	DYA031 bar + DYA049 collar	DYA049 collar
Calibration certificate	Included	Not included (SVICA4101)

Common Technical Specifications

Pyranometer	Principle	Thermopile
	Spectral range	0.3...50 µm
	Accuracy	5% daily

General Information	Housing	Stainless steel
	Recalibration	Every 2 years
	Protection grade	IP66
	Operative Temperature	-40...80 °C
	Compatibility with data loggers	E-Log, Alpha-Log using ALIEM module

Accessories

	**DYA049**	Mast-mounting device for Ø 45...65 mm pole
	DYA031	Arm for fixing PRRDA0100A to pole Φ 45...65 mm. DYA049 required
	**DWA505A**	Cable L= 5 m for PRRDA0130
	DWA510A	Cable L=10 m for PRRDA0130
	DWA525A	Cable L=25 m for PRRDA0130
	DWA526A	Cable L=50 m for PRRDA0130
	DWA527A	Cable L=100 m for PRRDA0130
	**MG2251.R**	7 pin free female connector for DWA5xx cable
	DPA291	Spare part: domes for net radiometer (N.5 couples)
	DPA295	Spare part: salt cartridge
	**DEA420.1** **DEA420.2**	Signal amplifier for Pyranometers. Output: 4...20 mA Programmable pyranometer sensitivity (μV/Wm^2) Power supply 10...30 V AC/DC For more technical information, see MW9008 catalogue
	SVICA4101	Calibration certificate ISO9001 type (Net radiation)

Net radiometer 4-components



- Measurement of short-wave and long-wave 4-component net radiation: incoming and reflected solar radiation, and incoming and emitted infrared radiation
- Four separate sensors for measuring solar radiation (pyranometers) and long-wave radiation (pyrgeometers)
- Output in µV/W/m^2

DPA266 is a 4-component net radiation sensor used for science-grade energy balance studies. The instrument has separate measurements of solar (short wave or SW) and far infrared (long wave or LW) radiation.
Modularity allows individual sensors to be serviced or recalibrated separately. Equipped with an internal heater, near the pyrgeometers, it prevents the formation of condensation on the window of the pyrgeometers. Temperature measurement via Pt100 to compensate for the heat radiated by pyrgeometers.

PN	DPA266	
Net radiometer 4-components	Output	4 x µV/W/m^2
	Principle	Thermopile
	Measurements	Incoming & outgoing short wave (pyranometer)
		Incoming & outgoing long wave (pyrgeometer)
Pyranometers	Range	0...2000 W/m^2
	Type	Spectrally Flat Class C (Second Class) (ISO9060)
	Spectral range	305...2800 nm
Pyrgeometers	Spectral range	4500...50000 nm
	Temperature sensor	Pt100
General information	Heating	1.6 W, 12 V DC
	Cable	L= 5 m
	Data logger compatibility	E-Log

Accessories

	MAPSA2000	Mast-mounting arm for Ø 45...65 mm pole

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