

OUTSTANDING CHARACTERISTICS

- ✓ Wide range
- ✓ High precision
- ✓ Compact

DESCRIPTION

MODEL TS 301

The radiation sensor Model TS 301, is an equipment to measure direct and diffuse solar radiation.

The sensor is composed by 12 copper elements, six black and six white. Each one contains six termocuples of crome-constantan, forming a termopile of 72 elements, which produce an output of 15 micro V/W/m².

When the sensor is exposed to solar radiation, a difference between the temperature of black sectors (absorbents) and the white ones (reflectives) is observed. The difference is proportional to radiation intensity.

A crystal of 70 mm diameter, protects the sensor of wind, admitting electromagnetics radiations between 0,3 and 3 microns.



MODEL TS 302

Model TS 302 is a high precision equipment to measure global radiation or a selective band of wave length.

The circular receptor of radiation of 1 cm², is covered by a black paint that transfeere the absorbed hot to a circular termocuple of copper-constantan.

The sensor is thermal compensated so as its response will be independent from the ambient temperature.

MODEL TS 303

Model TS 302 is a high precision equipment to measure global radiation.

The sensor is a fotovoltaic cell that converts the light energy to a electrical one, with an output of 80 uA/100 W/m². Integrated accuracy over one day is +/- 3%, while instantaneous is +/- 5%.

SOLAR RADIATION SENSORS

MODEL TS301/302/303



TECHNICAL SPECIFICATIONS

	Model TS 301	Model TS 302	Model TS 303
Spectral response	0.3 to 3 microns	0.285 to 3 microns	0.35 to 1.15 microns
Output	15 mV/W/m ²	9 mV/W/m ²	200 to 3700 mV/W/m ²
Sensor	6 segments de copper black and white	1 cm ² of optic black paint	Silicium Fotovoltaic cell
Termopile	72 of copper- constantan	Multijuntura of copper constantan	---
Impedance	35 Ohms	650 Ohms	1 Ohms
Linearity	+/-1 % of 80 to 1340 W/m ²	+/-0.5% of 0 to 2800 W/m ²	+/-5 %
Response time	4 seconds	1 second	1 millisecond
Termical coefficient	+/-0.03 % /°C	+/-1 % de -20 a +40°C	Compensated
Cosen response	+/-1% of 0 to 60 grades cenit angle; +/- 3% of 60 to 80 grades	+/-1% of 0 to 70 grades cenit angle; +/-3% of 70 to 80 grades	-
Nivelation	By Bubble	By Bubble	By Bubble

ACCESSORIES

- Multiple support AS 260
- Aconditioning PC board AS 2101, for TS 301 and TS 302.

Request for other specification

Made in Argentina