

CIR-4L



Day and Night ! Cloud cover monitoring

CIR-4L sensor head and comprehensive software package deployed in a desktop or laptop allow measurement of cloud cover and cloud height evaluation.

Each of the four detectors points to one of the main ordinal geographic directions of the rose. Brightness temperatures retrieved by the pyrometric sensors are processed by the software on board of the PC to calculate accurate values of the cloud fraction and evaluation of the cloud ceiling height.

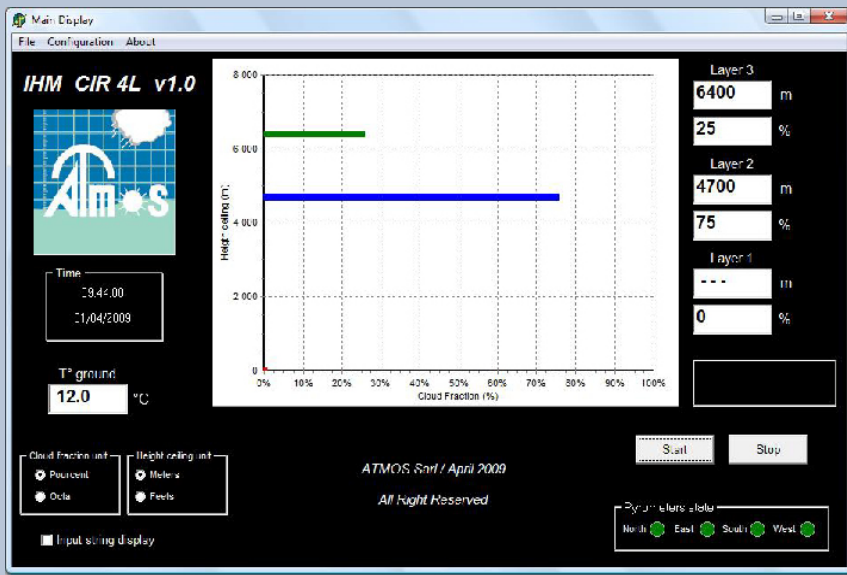
Some fields of use for CIR-4L :

- Atmospheric radiation physic and solar energy monitoring,
- Climatologic and air pollution studies,
- Airport activities for take off and landing clearances of some aircrafts.

For deployment, the sensor head has just to be fitted on 34 mm diameter tube and aligned to the North. The connection has just to be secured tightening gently the band clamp.

We recommend that the pod be properly linked to the earth. The instrument has been designed to ease service and maintenance.

In order to avoid solar warming of infrared detectors and to create a natural ventilation, pyrometers are set inside white PVC tubes. The instrument should be deployed away from obstacles.



The software package process all data using a special algorithm designed by ATMOS, and provides numerical and graphic description of the cloud cover, in terms of cloud fraction and evaluation of cloud altitude height.

All data processed are archived in a daily file under ASCII format with a time stamp..

Specifications

Nebulosity (cloud fraction)	Range : 0 - 100% (0-8 octas) Accuracy : +/- 6%
Data output	Range : 0 - 8000 m Accuracy : +/- 6% (w/ pseudo adiabatic T profile)
Power supply	12 - 36 V (100 mA)
Mounting	34 mm (1.34 in.) diameter (Standard 1 inch pipe)
Dimensions	150 x 150 x 200 mm (including mounting post)
Data archive	Delimited text files for numeric data