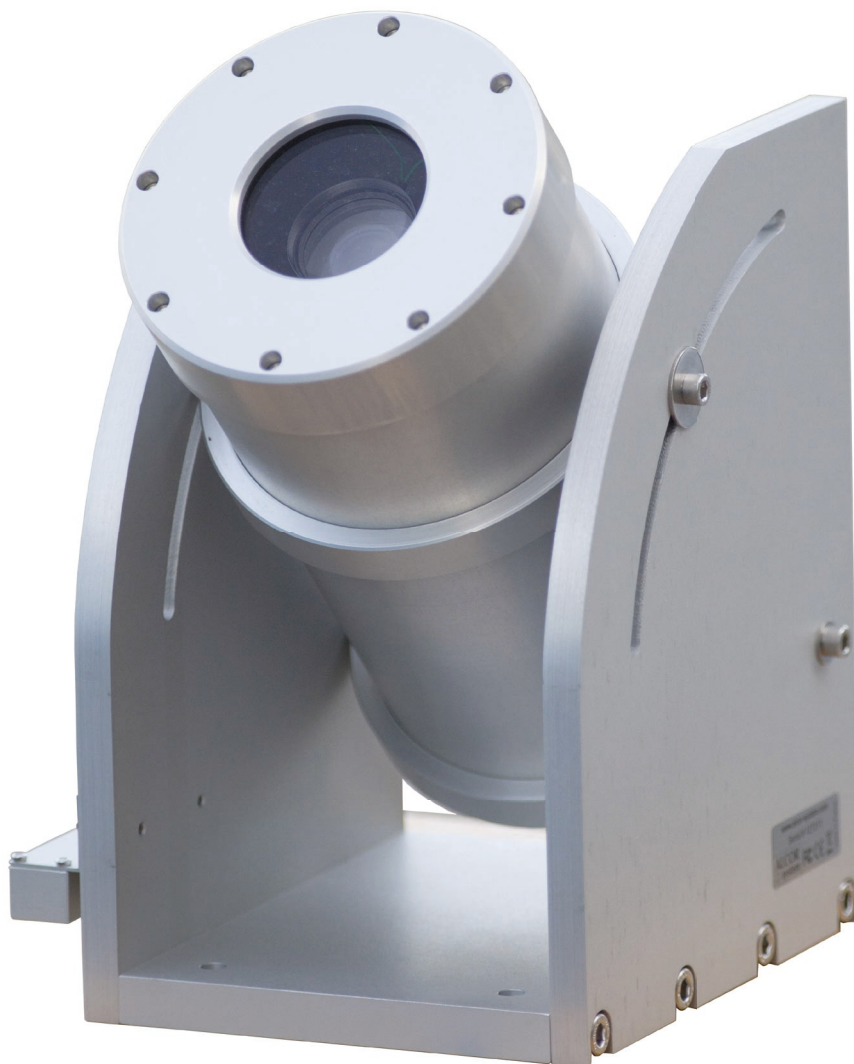


- Continuous and automatic seeing measurement
- Resists to harsh weather conditions
- Supplied with measurement software



Seeing monitor

Turbulence (or seeing) is a major concern when recording images of the sky. It limits the resolution of astronomical telescopes. Continuous measurement of seeing means that image acquisitions can be optimised during the most favourable periods.

This system has a wide range of applications:

- In **astronomy**, the Cyclope is a natural choice for night-time observation and be able to check the seeing value at any time.
- **Free space optical communication (FSO)**: night observation, site monitoring, data supplied at 1.55 μm , bandwidth forecasts.
- **Atmospheric turbulence studies**, jet stream localisation, passive optical detection.
- In the **defence sector**, with the monitoring of atmospheric turbulence for remote sensing.

● How it works

Cyclope must be installed on a rigid base (tubular metal pillar or concrete base). The adjustment involves aiming at the North Celestial Pole so that the North Star is visible in the camera's field of view ($3,6 \times 2,5^\circ$).

Cyclope will continuously measure variations in the position of this star at 1/500th of a pre-pixel, the value of which depends on turbulence, throughout the night (The North Star is always visible in the camera field). We also have a solution for users in the southern hemisphere (Please contact us).

● The software

The Cyclope is delivered with its software running under a Windows environment. (7, 8.1, 10 or 11).

It automatically starts taking measurements as soon as the sun is below the horizon, at a rate of 40 to 80 measurements per second. As soon as the instrument has, for example, 3000 measurements in memory (configurable in the software), it averages them and displays the seeing value at time t , either in arc seconds, or according to Fried's parameter (R_0). A graph is also generated throughout the night with the time on the x-axis and the seeing value on the y-axis. The software also generates a log in .txt format. Client software can retrieve the values using the TCP protocol supplied. An ASCOM driver is also available (contact us).

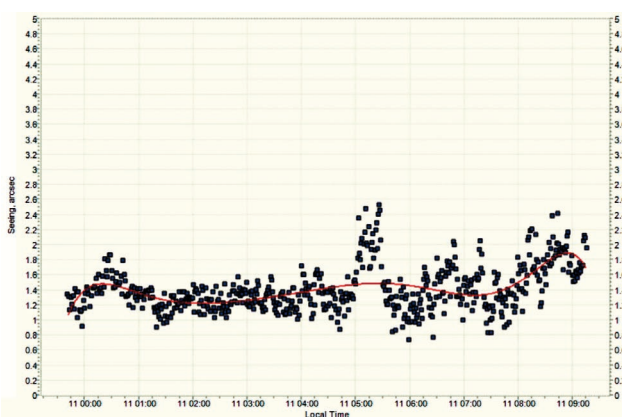
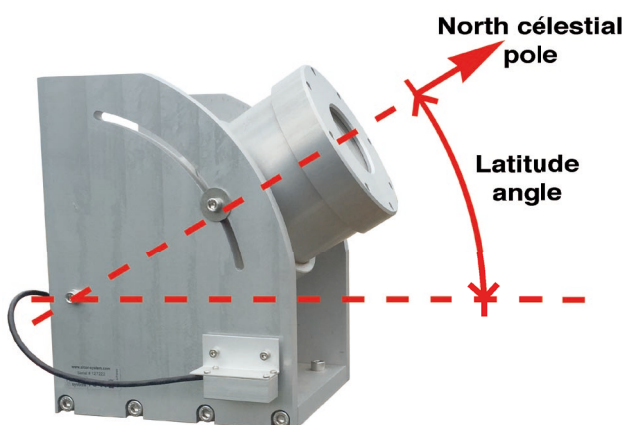
● Technical specifications

The Cyclope also has a temperature and humidity sensor that allows you to check at any time whether there is any possibility of condensation on the camera window. If necessary, it switches on the heating. (Temperature and humidity data are also displayed as numerical values or as a graph).

The all-metal casing is generously dimensioned to withstand the effects of wind, humidity, rain/snow and solar radiation. It has 3 waterproof, lockable connectors (RS 232 + power supply, camera Ethernet link and temperature/hygrometry probe).

- Dimensions: 25 x 20 cm (height: 34 cm)
- Weight: 11 Kg

Supplied with temperature and humidity sensor, RS232 cable, 12V power supply and control software.



Seeing monitor