ALCOR SYSTEM

µCyclope

Ref. ASMCYCLOPE

- **Economical version of the Cyclope**
- **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.

This instrument is a simplified version of the Cyclops at a lower cost, yet it achieves the same measurement quality and accuracy.

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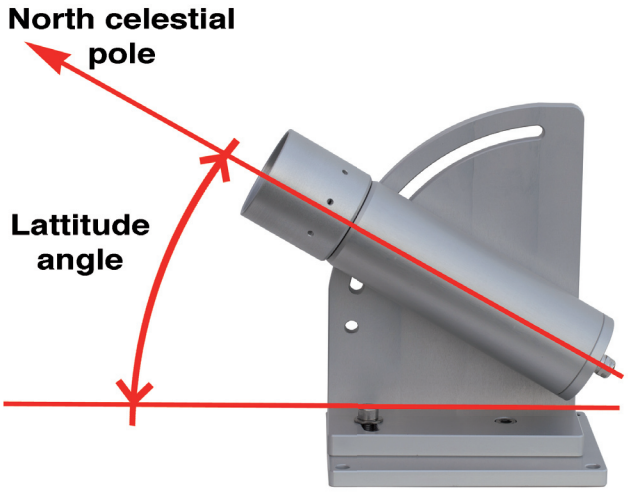
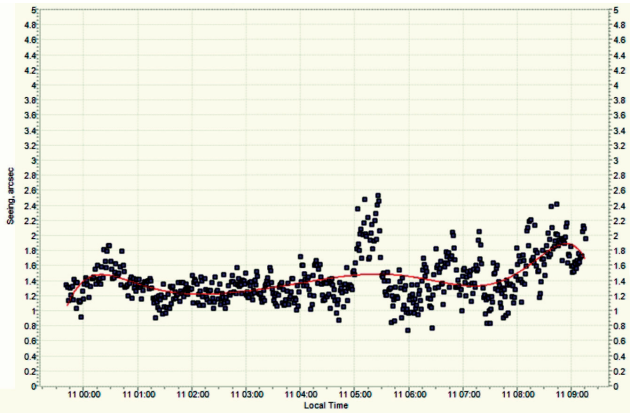
How it works



The µCyclope 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 x 2,5°).

The µCyclope 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 µCyclope 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 (Ro). 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

Le µCyclope est plus compact et léger que son grand frère le Cyclope mais n'est pas équipé d'un système anti-buée ni d'une sonde de température/hygrométrie. Il conviendra parfaitement aux structures associatives, petits observatoires ou particuliers avec un budget limité tout en conservant la même qualité et précision de mesures.

The all-metal case is highly rigid to withstand the effects of wind, humidity, rain/snow and solar radiation. It is fitted with a watertight cable gland for camera power supply and data transmission via Ethernet cable.

- Dimensions: 25 x 15 cm (height: 25 cm)
- Weight: 4,8 Kg

Supplied with 20m Ethernet cable, 12V Ethernet POE power supply and control software.

Seeing monitor

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