



The single channel photometer is placed at the Cassegrain focus. It employs a EMI 9893QA/350, spectral response S20 photomultiplier, which cooled to $-15\text{ }^{\circ}\text{C}$ has a dark current of 1 count/sec. The photomultiplier of high speed type allows time resolutions up to 1 ms. The acquisition system, operating in photon-counting mode is based on a Personal Computer, which receive the photomultiplier signal and drive the filter wheel. Up to 8 filters can be selected for contemporaneous observations. On-line plot of counts as function of time is allowed by the software Obelix written by the photometry group of Catania Observatory.

The input diaphragm can be manually set to the following FOV 14.5, 21.7, 28.9, and 43.4 arcsec. The sky brightness with the 21.7 arcsec diaphragm at zenith correspond to a star of $V=14.2$, $B=14.7$, $U=14.7$.

Single Channel Photometer

Last Updated Saturday, 08 January 2011 21:59

Instrument characteristic

Available filters

Johnson system [U B V](#)

Stromgren system [u b v y H-beta\(N,W\)](#)

Comet narrow
band IHW system

Maitzen system

[g1 \(501 nm\), g2 \(521,5 nm\)](#)

Time resolution

0.1sec; 2-8 filters

0.001 sec; one filter only

Limiting magnitude $5 < V < 15$ in UBV

$3 < V < 13$ in ubvy H-beta

$V = 15.5$, S/N ~ 40 with the 14.5 arcsec diaphragm