SOLAR SPECTRUM

SOLAR OBSERVER series 1 & 1.5

The Solar Observer series (SO) are narrow bandpass solar filters with the amateur solar astronomer in mind. These filters will provide excellent H-alpha viewing of the sun's chromospere.

The SO is housed in a low voltage temperature controlled TEC oven with tuning. The oven operates at 12 volts D.C. A cable is provided with the filter that allows the use of a 12-volt car battery for field use. It also comes with a power supply with a wide range of input voltages: 85 – 265 volts AC, and 12volt D.C. output. This will allow the filter to be used almost anywhere in the world.

The SO has a 19mm clear aperture (C.A.). The SO is designed for telescopes with apertures of 60mm or less. The telescope will need to be used at F/25 or longer. At this F.L., the solar image will fit nicely through the filter. The SO is also a good choice for video and CCD cameras, where only a small area of the field is being use.

The SO 1.5 has a 25mm clear aperture (C.A.). This filter will allow view full disk of the sun with scopes up to 3"at F/30.

The filters are grouped into three bandwidths, all of which are capable of observing broad band features like prominences and flares, but are narrow enough to observe the solar chromosphere.

Deciding which bandpass to choose depends on what your primary interests are. The broader filter (.65ang) is a good choice for general viewing; with this filter you have the capability of seeing the active areas and filaments on the solar disk.

The narrow filter (0.5ang) will give you more contrast on the disk, but still allow superior views of prominences.

The ultra narrow filters (0.3ang) and under, is for when the maximum contrast is desired for the solar disk features. The prominences will become three dimensional as they arch over the limb. These bandwidths were previously only available to the professional observer.