

DATA SHEET

Combined ultraviolet – infrared blocking filter

Orion Photonics has developed a filter to remove both ultra-violet and infrared energy, leaving cool, clear visible light. The filter is characterised by high visible transmission but with very steep cut-off at ultraviolet and near infrared wavelengths. The filter reflects the ultra-violet band and the infrared out to 1.2 microns. Because the unwanted bands are reflected and not absorbed, the filter stays cool. The coatings are manufactured using high performance plasma assisted deposition techniques, enabling the filters to offer ultimate stability against temperature and humidity, and a working temperature range of below zero to in excess of 200 degrees Celsius with no change in spectral response. This is vital for applications where the filters are used in projectors, as spectral shift would affect colour balance of the display.

These filters have found application in CMOS digital cameras, high intensity TV projectors, theatre lighting and shop window displays. The filters can be supplied with antireflection coatings on the opposite face to further increase visible light transmission.

Features of the combined UV/IR blocking filter are:

- Manufactured using plasma assisted deposition for thermal and environmental stability
- High visible transmission with efficient heat and UV rejection
- Working temperature range of below zero to in excess of 200 degrees
- Temperature stable, eliminates colour shift with temperature variations
- Environmental performance meets most military specifications

