

## CO 4010E Ge 3-5

Enhanced Hard Carbon antireflection coating  
for Germanium  
3 - 5  $\mu\text{m}$

### DESCRIPTION

This enhanced form of the Hard Carbon coating is designed to satisfy the increased demands for durability required for external surface (O.S) applications. It is particularly suitable for naval applications

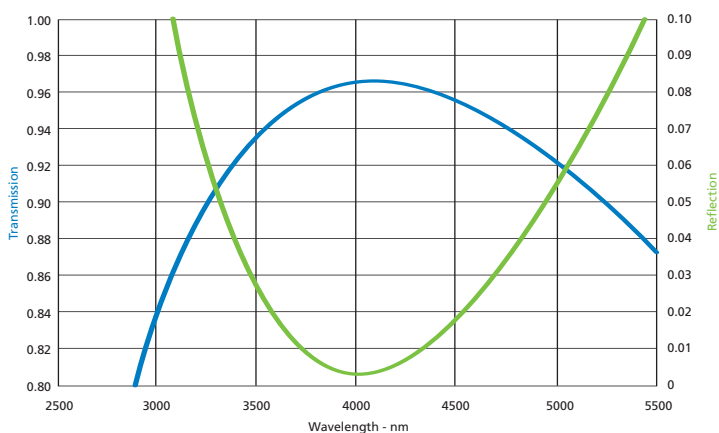
### SPECTRAL PERFORMANCE

Transmission values are for a 1 mm thick Germanium substrate which has been coated on one surface with CO 4010 and on the second surface with CO 4029 (High Efficiency coating).  
TRANSMISSION > 92% (average) from 3 - 5  $\mu\text{m}$   
TRANSMISSION > 96% (at peak wavelength) within 3 - 5  $\mu\text{m}$

Reflection values are for a single Germanium surface coated with CO 4010.  
REFLECTION < 3.0% (average) from 3 - 5  $\mu\text{m}$

### ENVIRONMENTAL PERFORMANCE

The coating will withstand the following environmental tests which will be carried out on a representative witness piece coated in the same batch.



ADHESION	MIL-C-48497 TS1888	para 4.5.3.1 para 5.1
HUMIDITY 7 days	MIL-C-48497 TS1888	para 4.5.3.2 para 5.2.1.2
ABRASION windscreen wiper	TS1888 (O.S)	para 5.4.3
SALT Fog For 90 days	MIL-STD-810C	