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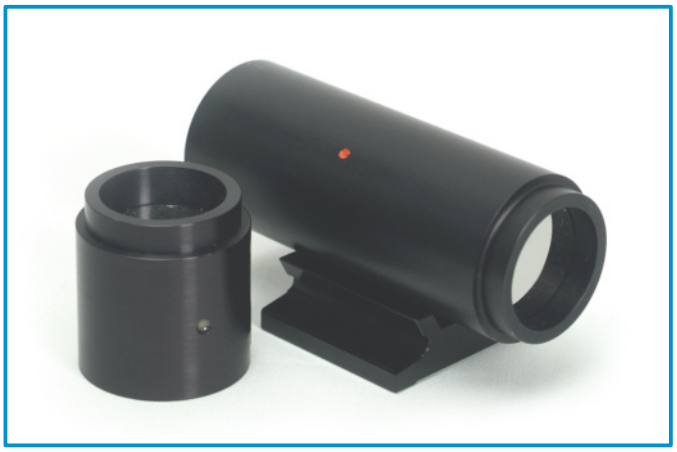
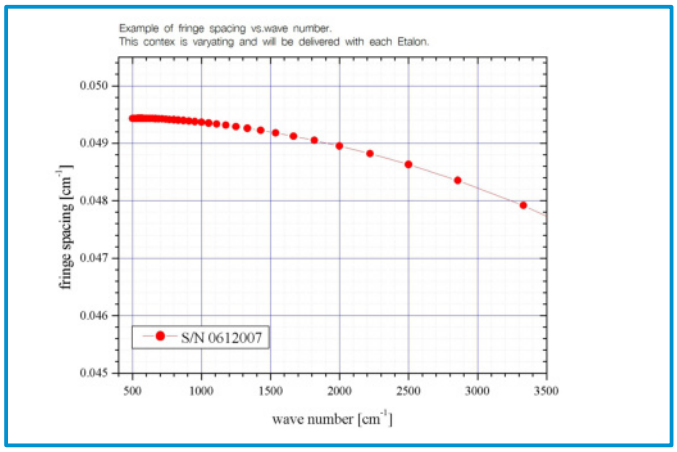
Q-MACS GE ETALON

The Q-MACS Ge (Germanium) Etalon is often used to monitor the wavelengths of tunable lasers in the MIR Range. Therefor a part of the output signal from the tunable laser is directed trough the germanium etalon. During the Laser tuning, the transmission through the Ge Etalon ist modulated with a spacing between the transmission peaks equal to the Etalon FSR (free spectral range).

Ge Etalons are very temperature sensitive. So the Q-MACS Ge Etalon is very useful to determine the relative wavelenght quite accurately, but due to the temperature sensitivity not as good to determine the absolute wavelenght.

Due to the integrating of the Ge Etalon in an aluminum housing, the Q-MACS Ge Etalon is largely protected and therefore ideal for use in laboratory and industrial applications.





general

crystal material	single crystal of Germanium
crystal lenght	typ. 25,4mm (1") other lenghts on request
dimensions	35,6mm diameter, 38mm
wavelenght range	2µm - 20µm
wedge	< 5.0 arc second*
clear aperture	80% diameter
surface quality	80/50 or better
surface figure	λ/10
finesse	depending on wavelenght
FSR	depending on wavelength
coating	on request

The length of the etalon is measured spectroscopically. The refraction index n of Germanium was taken from "G. Hawkins, R. Hunneman; Infrared Physics & Technology 45 (2004) 69-79"