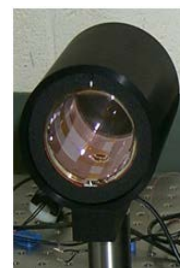


Permanently Sealed Molecular Iodine Cells

(Product ID: I2S-5, I2S-10)

To create the permanently sealed starved cell, the cell is evacuated and cold-finger filled with Iodine is brought to the desired vapor pressure (cold-finger operating temperature). The stem between the cold-finger and cell is then permanently sealed with a torch, isolating the Iodine in the cell body and fixing the number density. The cell is then operated 10-20 °C above the cold-finger set temperature and the Iodine in the cell is a super-heated vapor with a set number density. The result is a molecular cell with a very stable absorption spectra.

Permanently sealed iodine-vapor cells are 3-in.-dia, 5-in.-long or 10-in.-long Pyrex cells. These cells are manufactured with a prescribed iodine partial pressure (specified by user at time of order). In addition, the transitions can be pressure broadened with nitrogen partial pressure (specified at time of order).



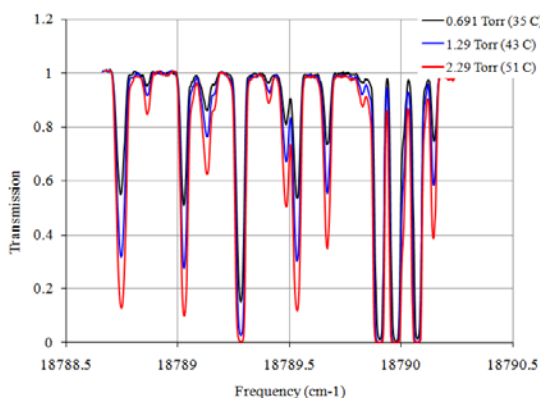
Packaged I2S-5 with integrated thermocouple and heating element in aluminum housing.

SPECIFICATIONS FOR I2S-5

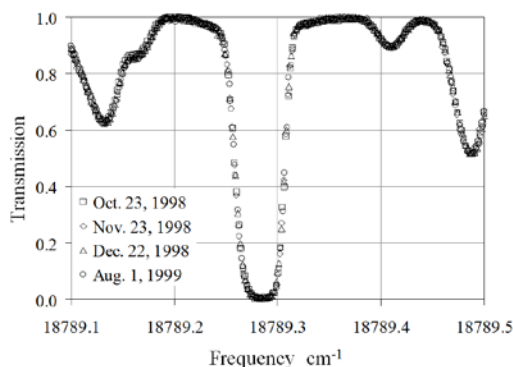
Length..... 125-mm
 Diameter 76-mm
 Housing..... Anodized Aluminum
 Mounting 1/4 -20 Threaded
 Maximum Operating Temperature 130 °C
 Thermocouple..... Type T
 Set Point..... 30°C – 50 °C

SPECIFICATIONS FOR I2S-10

Length..... 250-mm
 Diameter 76-mm
 Housing..... Anodized Aluminum
 Mounting 1/4 -20 Threaded
 Maximum Operating Temperature 130 °C
 Thermocouple..... Type T
 Set Point..... 30°C – 50 °C



Transmission versus frequency for 5-inch iodine cell at a range of vapor pressure set points.



Long term stability of sealed Iodine Cell

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