

Features: Venus Series Long Path Gas Cells

variable-path low-volume long path cells for high temperature operation

Venus Series Gas Cells from Gemini are available in several variable-path configurations which are simple to use and can be heated to temperatures as high as 100C. Although these cells are low volume, they get fairly good optical throughput at pathlengths as high as 8 meters. Constructed from a simple pyrex glass cylinder and aluminum hardware, the optics are securely mounted in alignment to a removable sub-assembly mounted inside the cylinder. A calibrated micrometer head allows the user to easily toggle between known pathlengths from one to eight meters. Recommended for use at ambient pressure, Venus Series cells are an excellent choice for general analytical and air monitoring applications.

A - Swagelok and Nupro Valves and Fittings are used. Three 1/4" Swage connectors with O-Seal back-up utilize a 1/4" NPT hole tapped in the aluminum end plate. A stainless steel sample flow through tube extends from one valve to the bottom of the cell chamber.

B - The pathlength adjustment is provided in the form of a calibrated micrometer head, vacuum tight with only a small SS post and pin exposed to the sample.

C - The valve and fitting end plate is easily removed for service without disturbing the other elements.

D - A simple structure of aluminum rods and a ring form the outer cylindrical assembly which holds the whole system together. It consists of a 6 rods and a flange ring, all drawn together with screws. The cell body or endplates can easily be serviced without disturbing the other elements.

E - The Glass cell chamber makes it easy to observe conditions inside the cell.

F - The White cell optics are mounted on an easily removable carriage, a sub-assembly mounted to the cell interior, yet isolated from effects of temperature or pressure changes on the cell alignment.

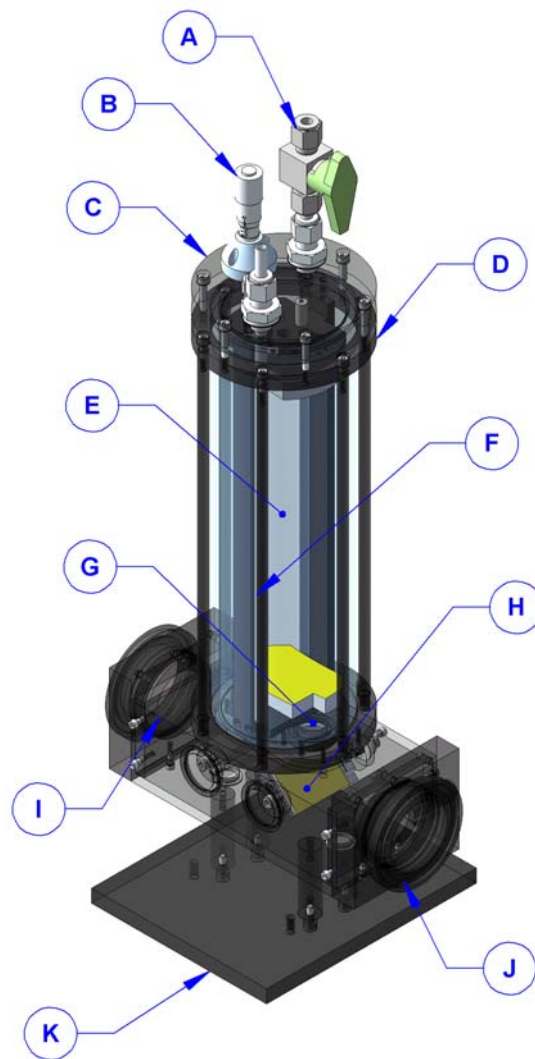
G - The window end plate carries two 25mm dia. x 4mm thick IR transmitting windows of any type. Most commonly provided are KBr, ZnSe, BaF₂, CaF₂, or KRS5. The cell comes with KBr windows as standard, other types of windows may be purchased separately.

H - Transfer optics are mounted on easily adjustable posts, and usually need alignment only once during the initial installation and tuning. The cell can easily be replaced and removed from the instrument sample compartment without loss of signal or alignment.

I - Purgeable transfer optics box has the cell mounted securely to it, and can be mounted in order to orientate the cell in either a vertical or horizontal direction. Purge fittings are available in the rear of the assembly, and hole covers on the front provide easy access to the transfer optics adjustments.

J - Telescoping purge rings extend to the walls of the instrument sample compartment for a purge-tight seal.

K - The instrument base plate is provided custom with each order to mate with the user's specific FTIR or spectrometer.



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