3m All-fiber Coupling Gas Absorption Cell

Description

Long-path gas absorption cell is applied to a variety of spectral analysis and detection. Herriot Gas Cell with excellent chemical stability is mainly adopted, which is mainly composed of air chamber cavity, concave mirror, optical package structure assisted by high stability, standard optical fiber joint, power gas exploration inlet and outlet, shockproof base, etc. The unique suspension circuit design has excellent vibration and temperature stability, and can work in various complex environments, which is very suitable for gas line real-time detection. With ultra-low system noise, it can be applied to trace gas analysis. CO_x gas absorption cell is applied to spectral analysis and detection of CO and CO_2 gas.

Features

- Optical fiber signal input and optical signal output
- The air chamber structure is stable and anti-vibration, and the external extrusion is insensitive to the change of ambient temperature
- Passive control
- The air chamber is small in size, compact in structure and convenient to carry
- Effective optical path and low noise

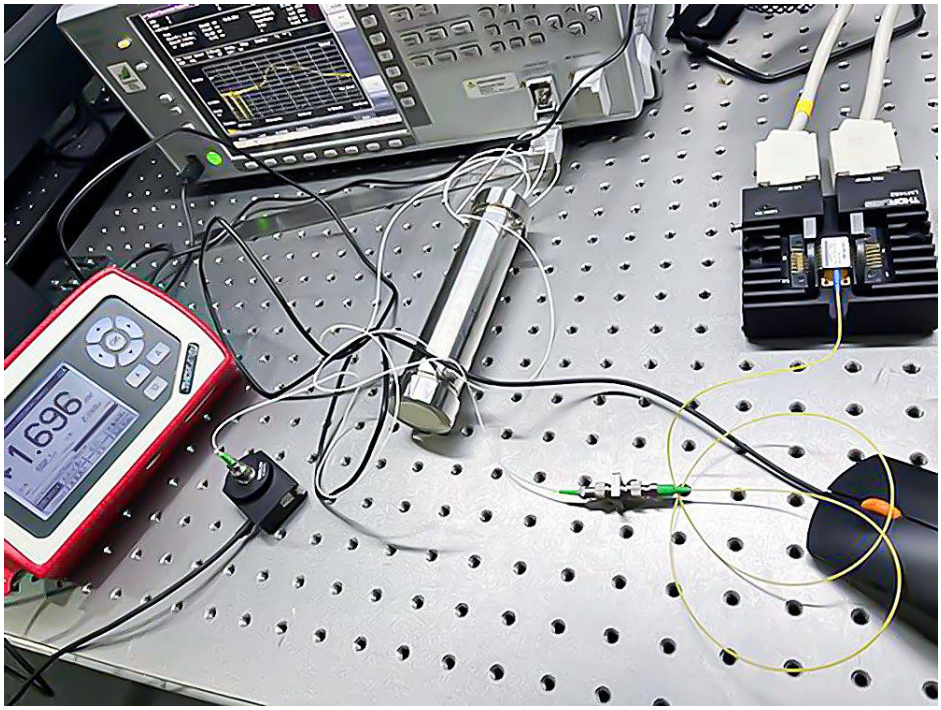
Application

- Monitoring of air pollutants
- Monitoring of coal-fired flue gas emission
- Monitoring of waste incineration emission
- Monitoring of pollutants in chemical parks

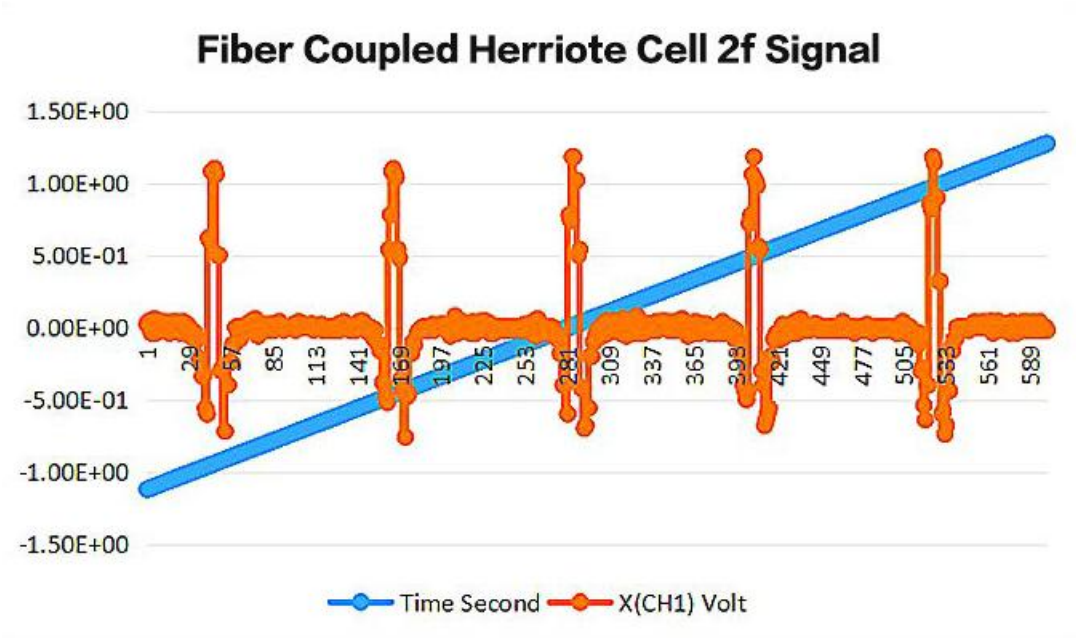
Parameters of Absorption Cell

Parameter	Technical Specification
Effective Optical Path	3m
Wavelength Coverage	740-820nm, 1500~1700nm, 1900-2400nm
Transmissivity	＞20%
Enter the Maximum Optical Power	500mW
Optical Fiber Type	Ultra-strong bent insensitive fiber from YOFC
Output Type	Ultra-strong bent insensitive fiber from YOFC
Reflector	Dielectric film
Voltage Withstand Range	⩽0.3MPa
Gas Interface	Φ 6 through
Gas Volume	About 10mL
Overall Dimensions	Figure 1
Total Weight	About 450g
Shell Material	6061
Working Temperature	-20°C ~ +70°C
Storage Temperature	-40°C ~ +85°C

Bandwidth Test and ystem Loss Test



Test Chart


Fiber Coupled Herriote Cell 2f Signal
1.50E+00
1.00E+00
5.00E-01
0.00E+00
-5.00E-01
-1.00E+00
-1.50E+00
1
29
57
85
113
141
169
197
225
253
281
309
337
365
393
421
449
477
505
533
561
589
Time Second
X(CH1) Volt