

AW-FQ01HQ

- For use with BluQCM instruments
- For flow applications
- For HFF-QCM sensors

General	
Sensor	HFF-QCM
Connector	AWS Connector
Dimensions	47 (L) x 33 (W) x 60 (H) mm
Assembly mechanism	Quick-Lock
Flow	Yes
Chamber volume	5.5 μ L

Materials	
Cell base	Aluminium
Cell Cover	PEEK + PSU
Conical gasket	PDMS

Flow-through elements	
Tubing	1/16" OD, PTFE
Fittings	Polypropylene nuts (M6) and CTFE ferrules

Compatible sensors	
Type	AWS HFF-QCM
Fundamental frequency	50, 100, or 150 MHz

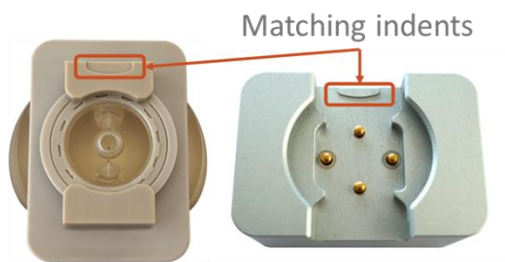


BOTTOM SIDE: AWS connection

Cleaning recommendations and maintenance

- Generally, use a soft and clean, lint-free cloth to clean the cell.
- Use solvents that do not attack the cell materials (check chemical compatibility information).
- Do not immerse the cell in liquids.
- Dry the cell with streams of nitrogen gas.
- Avoid touching the seals and contacts to prevent damage and protect them from dust and oil.
- Store the cell in its original packaging when not in use.

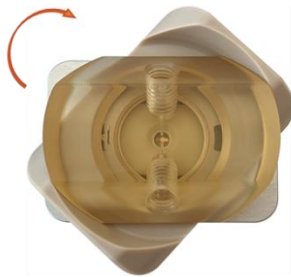
Assembly



1 Identify the matching indents in both parts of the cell



2 Place the sensor in marked position



3 Screw back on (push lightly and turn)



4 Plug the flow through elements

Chemical compatibility of materials (guidance)

CTFE Chlorotrifluoroethylene, is the generic name for the material produced as Kel-F® and as Aclar®. It is very resistant to all chemicals except THF and some halogenated solvents, and is resistant to all inorganic corrosive liquids, including oxidizing acids. CTFE can be used at temperatures up to 100°C. Swells in ketones.

PDMS Polydimethylsiloxane, is a silicon-based organic polymer, optically clear, and generally inert, non-toxic, and non-flammable. PDMS structures can be used in combination with water and alcohol solvents without material deformation. However, most organic solvents will diffuse into the material and cause it to swell. Some organic solvents, such as acetone or 1-propanol, swell the material to a small extent, but its use is not recommended. Solvents such as diisopropylamine, chloroform, ether, and THF that swell the material to a large extent.

PEEK Polyether ether ketone, is a semi-crystalline thermoplastic with excellent mechanical and chemical resistance properties that are retained to high temperatures (up to 260 °C). It is resistant to radiation as well as to a wide range of solvents, both organic and aqueous. With its resistance to hydrolysis, PEEK can withstand boiling water and superheated steam used with autoclave and sterilization equipment at temperatures higher than 250 °C. It is attacked by halogens and strong Brønsted and Lewis acids as well as some halogenated compounds and aliphatic hydrocarbons at high temperatures. It has high resistance to biodegradation.

PSU Polysulfone, is transparent and highly resistant to mineral acids, alkali, and electrolytes, in pH ranging from 2 to 13. It is resistant to oxidizing agents; therefore, it can be cleaned by bleaches. It is also resistant to surfactants and hydrocarbon oils. It is not resistant to low-polar organic solvents (e.g., ketones and chlorinated hydrocarbons) and aromatic hydrocarbons. It is also stable in aqueous acids and bases and many non-polar solvents; however, it is soluble in dichloromethane and methylpyrrolidone.

PTFE Polytetrafluoroethylene, is a tough, hydrophobic, nonflammable thermoplastic fluoropolymer, produced by the polymerization of tetrafluoroethylene. Certain alkali metals and fluorinating agents such as xenon difluoride and cobalt(III) fluoride can damage PTFE, but otherwise it is highly resistant.

Components manufactured with other materials may be available for applications with special requirements. Contact us for further information.