

## AW-FQ01Q QCM 14 mm flow Cell

- For use with BluQCM instruments
- For QCM 14 mm wrapped sensors
- For QCM flow applications

### General

|                    |                             |
|--------------------|-----------------------------|
| Sensor             | QCM 14 mm WRAPPED           |
| Connector          | AWS Connector               |
| Dimensions (mm)    | 55 (L) x 33 (W) x 33.75 (H) |
| Assembly mechanism | Quick-Lock                  |
| Flow               | Yes                         |
| Chamber volume     | 45 $\mu$ L                  |

### Materials

|            |              |
|------------|--------------|
| Cell base  | Aluminium    |
| Cell Cover | PEEK and PSU |
| O-ring     | Perlast®     |

### Flow-through element

|          |   |
|----------|---|
| Tubing   | 1/16" O.D. – 0.5 mm I.D., PTFE            |
| Fittings | Polypropylene nuts (M6) and CTFE ferrules |

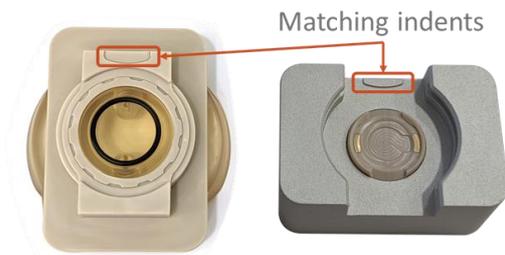


BOTTOM SIDE: AWS connection

## 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.
- Keep electrical connectors clean by occasionally rubbing ethanol over them.
- 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.

**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.

**Perlast®** Perlast® (trademark of Precision Polymer Engineering Ltd) is a high-performance perfluoroelastomer material (FFKM). The most chemically resistant elastomer available, a rubber form of PTFE, it displays good properties in applications where purity, high temperatures and retention of sealing force are important.

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