

AW-FEQ01Q EQCM 14 mm Flow Cell

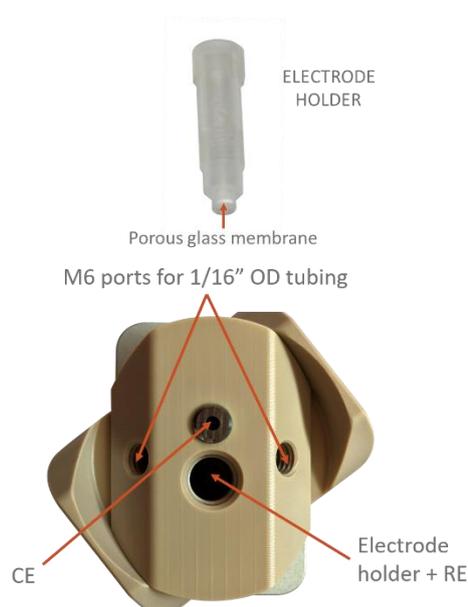
- For use with BluQCM equipment
- For QCM 14 mm wrapped sensors
- For flow applications

General	
Sensor	QCM 14 mm WRAPPED
Connector	AWS Connector
Dimensions (mm)	47 (L) x 33 (W) x 33.75 (H)
Assembly mechanism	Quick-Lock
Flow	Yes
Chamber volume	35 μ L
Electrochemistry (EQCM)	Yes, WE connection, Integrated Pt plate and RE holder included

Materials	
Cell base	Aluminium
Cell Cover	PEEK
O-ring	Perlast®
Electrode holder	PMP + glass

Electrodes		
Reference electrode (RE)	electrode	6 mm body diameter (RE-1S and RE-7S type)
Counter electrode (CE)	Integrated Pt plate	(99.95%) (Area = 74 mm ²)

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

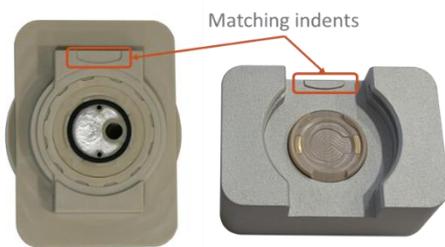


BOTTOM SIDE: AWS connection

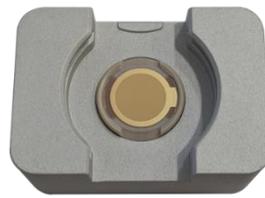
Cleaning recommendations and maintenance

- 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 tip of the electrode holder in order to keep its porous membrane unblocked.
- IMPORTANT:** After first use, keep the electrode holder tip immersed in liquid.
- 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 (push li. turn)



- 4** Screw electrode holder, fill with up to 200 μ L of electrolyte and place RE



- 5** Plug the flow-through elements & electrodes

Chemical compatibility of materials (guidance)

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.

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.

PMP TPX™ Polymethylpentene (PMP, trademark of Mitsui Chemicals Co.) is a thermoplastic polymer of 4-methyl-1-pentene, with similar characteristics to those of traditional polyolefins and include excellent electrical insulating properties and strong hydrolysis resistance. In addition, TPX™ features low dielectric, superb clarity, transparency, gas permeability, heat and chemical resistance and release qualities.

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.

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.

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