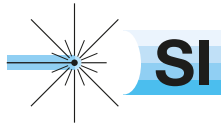


# QCM-I Accessories for Electrochemistry



# QCM-I Mini



SMA Connector for external sensor holder    Thermally controlled sensor chamber

Temperature range 15 °C to 65 °C

Frequency range 0.05 to 80 MHz (Fundamental to 13<sup>th</sup> overtone for 5 MHz Crystal)

Dissipation measurement ( FWHM of each resonance curve)

# QCM-I



QSH-ext.cable module  
with QSH-dip sensor holder

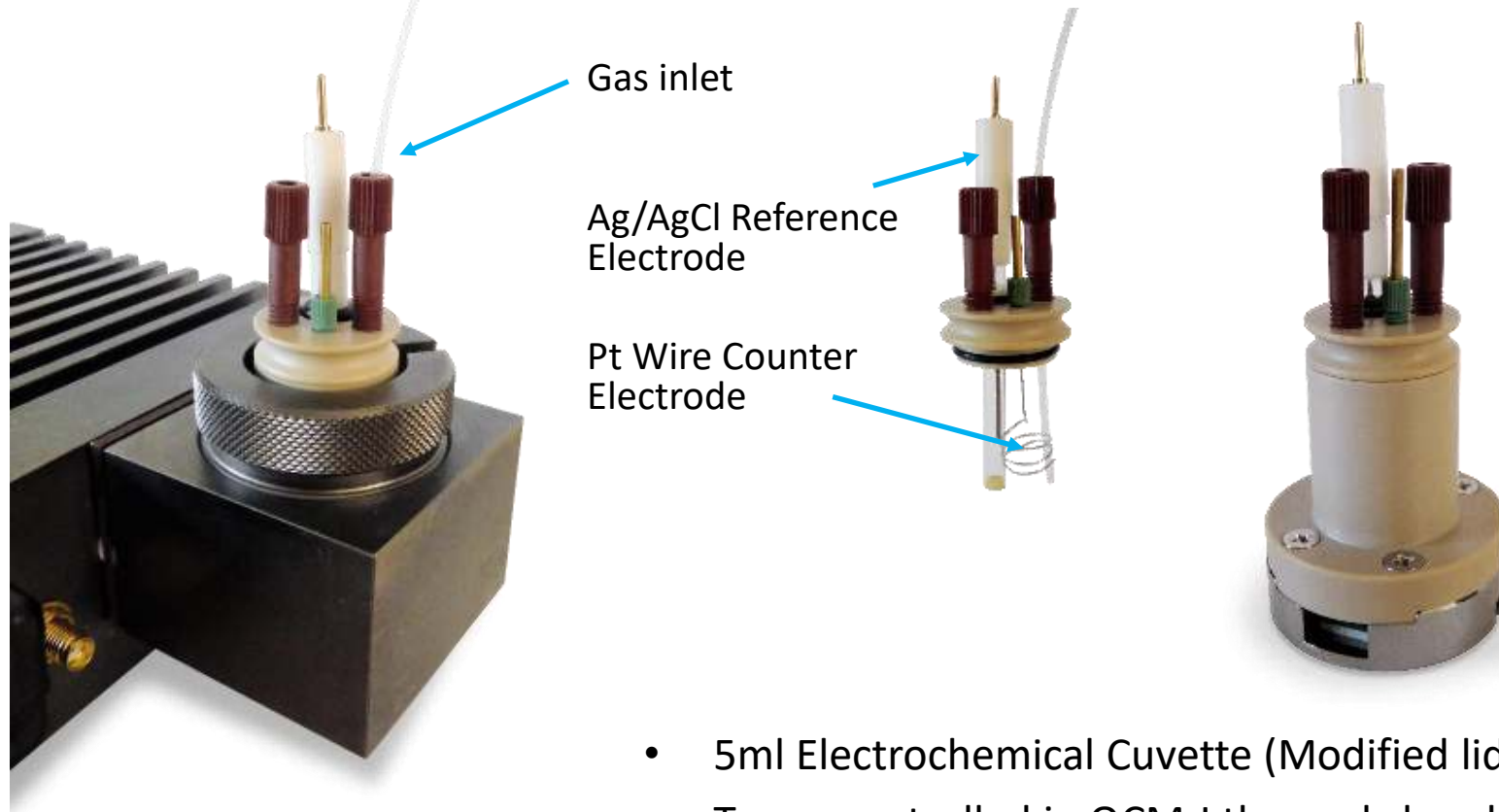
- Two independently thermally controlled sensor chambers for QCM flow cells
- Temperature range from 4 °C to 80 °C
- A wide range of external sensor holders can be connected via the QSH-ext. cable module
- Frequency range 0.05 to 80 MHz (Fundamental to 13<sup>th</sup> overtone for 5 MHz Crystal)
- Dissipation measurement ( FWHM of each resonance curve)

# QSH-014 standard flow cell

- QCM flow cell for 14 mm diameter, wrap-around electrode QCM crystals
- Sensors are held between two O rings
- Standard wetted parts : PEEK, VITON, FEP (Ti and Perspex options)
- Temperature range from -40°C Up to 80°C

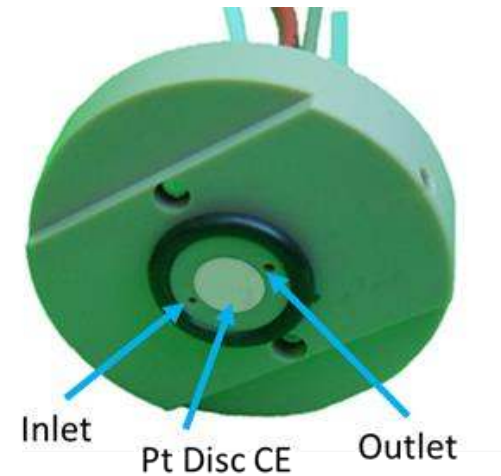
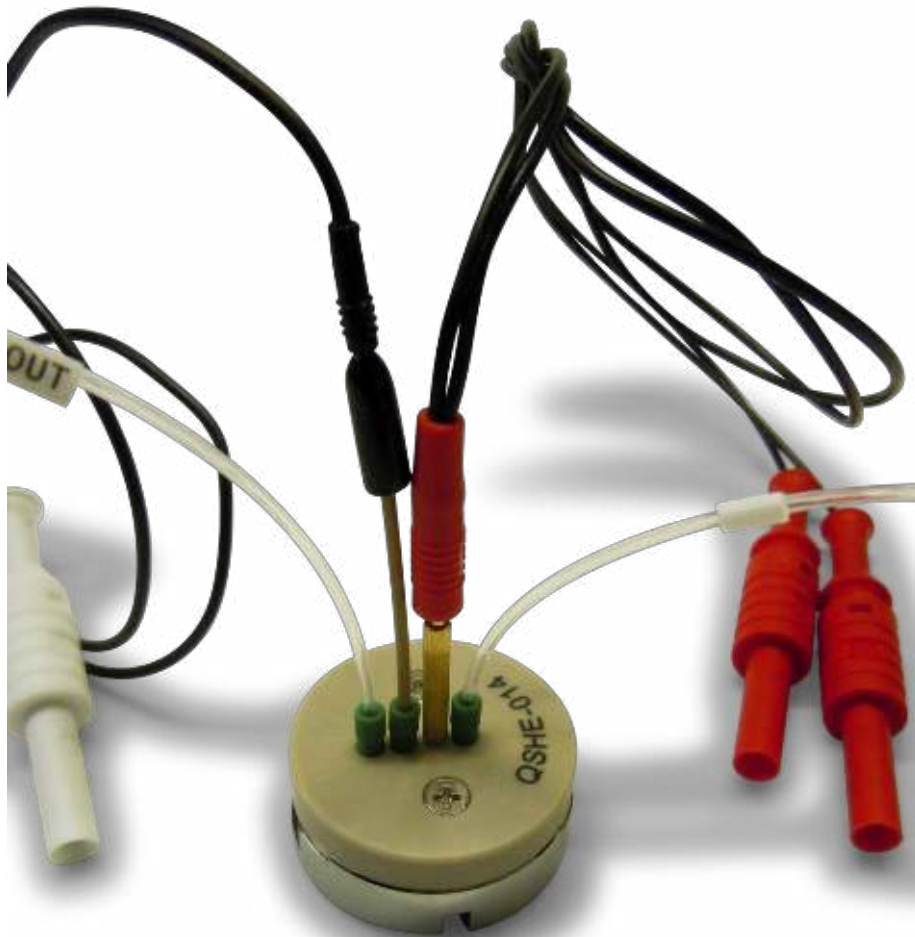


# QSHE-open Electrochemical Cuvette



- 5ml Electrochemical Cuvette (Modified lid)
- Temp. controlled in QCM-I thermal chamber
- Electrochemical Software module  
(for integrating Gamry potentiostats)
- Can be added as an upgrade to QCM-I systems

# QSHE-014 Electrochemical flow cell



- Electrochemical Flow cell
- CE to WE distance 0.3 or 1.5mm
- Electrochemical Software module (for integrating Gamry potentiostats)
- Can be added as an upgrade to QCM-I and QCM-I Mini systems

# QMH-ext.

- External measuring holder to accommodate QSH-014 or QSHE-014 flow cells ( environment from  $-40^{\circ}\text{C}$  to  $80^{\circ}\text{C}$  )
- Pt100 RTD sensor, thermal insulation optional
- No thermal regulation, may be controlled with a hot/cold plate



# QSH-dip

Can be added as an accessory to the QCM-I systems



- QCM sensor holder for dip-in or open cuvette applications  
( Humidity measurement, High temperature cell, Electrochemical Cell etc. )
- Wetted parts: PEEK, VITON ( KALREZ optional)
- Accommodates dia.14 mm QCM sensor crystals with wrap-around electrodes



# QSHE-Ext.

- 50-1000 ml open electrochemical cell
- Accommodates the QSH-dip QCM sensor holder
- Modular to be used with a variety of electrodes, gas - liquid fittings
- Can be added as an accessory to the QCM-I systems
- Electrochemical Software module available
- Jacketed version of the glass cell is available

