



The successor of QCA922
high speed & high sensitivity QCM



QCM922A is the successor of QCA922 and can be simultaneously measured a small mass change as resonance frequency and the viscoelastic change as resonance resistance and is corresponding to the measurement of the frequency characteristics of admittance. QCM922A is capable of high sensitivity of up to 30MHz and high-speed of up to 10msec.

Application examples

- Measurement of biopolymer interactions, such as protein
- Real-time monitoring of the formation of high molecular and decomposition
- Evaluation of a lithium ion secondary battery with EQCM
- Gas analysis, such as humidity and smell substance
- Quantitative evaluation of the detergency in surfactant
- Film thickness measurement in the plating
- Analysis of structural change by the measurement of the frequency characteristics of the admittance

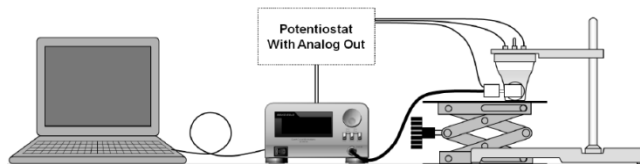
Example of QCM922A System Configuration

Flow Cell system



QCM922A-020, QA-CL6/ CL6PK/ CL7
PC, WinQCM, Peristaltic pump

EQCM system



QCM922A-EQCMBASE, PC, Potentiostat/Galvanostat
BNC cable, Stand, Lab jack

Specification

□ QCM922A-020: Main unit

Item	Description
Measuring item	Simultaneously Resonance frequency & resistance or Admittance frequency characteristics
Resonance frequency	Resolution: 0.01 Hz Range: 5 MHz to 30 MHz
Resonance resistance	Resolution: 0.01 Ω Range: 1 Ω to 10 kΩ
Admittance frequency characteristics	Frequency range: 4 MHz to 30 MHz
ΔF analog output	Range: ±10 V(14bit) Scale: ±100 Hz to ±500 kHz
ΔR analog output	Range: ±10 V(14bit) Scale: ±10 Ω to ±10 kΩ
Analog input	2ch, Range: ±3, 6, 12 V(14bit)
Gate time	10 ms/ 20 ms/ 100 ms/ 1 s/ 10 s
Display	20 characters 4 lines OLED
Interface	USB 2.0
Input power source	AC 100 to 240 V, 50/60 Hz
Power consumption	Max. 25 VA
Dimensions	162 x 160 x 95 (WxDxH)[mm] *
Weight	Approx. 1.3 kg
Operation environmental temperature	5°C to 40 °C(non-condensing)
Compliant standards	CE marking (EMC, low-voltage directive)

QCM922A-020 contains main unit and QCM922A-100

□ QCM922A-100: QA-CL Adapter Cable

Item	Description
Material	Case:PVDF
Connection cable	Connector:LEMO® plug(Male) Cable:Coaxial multi cable:about 1.0 m
Working(W) terminal	Connected to the working electrode of Potentiostat/Galvanostat internally connected through a low pass filter and a measurement electrode surface of the quartz resonator
Dimensions	24 x 40 x 15 (WxDxH)[mm]*
Weight	Approx. 130 g(including cable)
Operation environmental temperature	5°C to 40 °C(non-condensing)

□ 9MHz AT-Cut Quartz Crystal Resonator QA-A9M-series

Item	Description
Electrode material	Au, Pt, Ag, Al, C, Cu, ITO, Mo, Ni, Si, SiO ₂ , SUS304, Ti, etc. 300nm of electrode material is sputtered onto a Ti film groundwork
Electrode area	5mmφ

□ Dip Cell: QA-CL3

Item	Description
Material	Main body: PTFE, PVDF O-ring: Viton®
Dimensions	25.5 x 20 x 12 (WxDxH)[mm]*
Usage	Solution or air

□ Well Cell: QA-CL4/ QA-CL4PK

Item	Description
Material	Main body: PTFE, PVDF(QA-CL4) PEEK(QA-CL4PK) O-ring: Viton®
Dimensions	25.5 x 20 x 12 (WxDxH)[mm]*
Capacity	Max. 750μl
Usage	Cell is filled with solution or CL4 and CL4PK are connected with RG100(Cell of EQCM)

□ Well Cell: QA-CL5

Item	Description
Material	Main body: VC O-ring: Viton®
Dimensions	25.5 x 20 x 12 (WxDxH)[mm]*
Capacity	Max. 250μl
Usage	Cell is filled with solution

□ Flow Cell: QA-CL6/ QA-CL6PK/ QA-CL7

Item	Description
Material	Main body: PTFE, PVDF(CL6)/ PEEK(CL6PK)/ VC(CL7) O-ring: Viton®
Dimensions	28.0 x 20 x 12 (WxDxH)[mm]*
Capacity	90μl
Usage	Cell is flowed with solution by the pump

* without a projection part

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The specification is subject to change without notice. Please be forewarned.

Официальный поставщик в РБ и РФ
ЧП "ИлПа Тех"
Республика Беларусь, 220089 г. Минск,
ул. Уманская, 54, 4 этаж, пом.26
Тел./факс: +37517-328-18-02
E-mail: info@ilpa-tech.ru; www.ilpa-tech.ru