# SPECIFICATION SHEET



# PANEL TYPE RESISTANCE METER (2CHANNELS)

**AQM-210A** 

A compact and lightweight panel-mounted 2-channel resistance meter.

Ultra-pure water resistance (0 to 20 M $\Omega$ ·cm) of semiconductor plants, etc. is measured with wide temperature compensation from -5 to 120 °C.

It is also possible to measure near the hot water sterilization process of ultra-pure water.

Displays the transmission output (DC 4 to 20mA 2 circuits), alarm output (2 circuits c contact), and sample water temperature.

It has an RS-232C digital output.

#### **Features**

OA compact DIN96 size

Small and light weight 96mm×96mm(DIN standard)  $\times 171$ mm

○Can connect two detectors

With key operation, you can switch the other measurement value, the ratio of the two measurement values, the removal rate, or each display in order at 5-second intervals automatically.

- OWith cell constant adjustment function
  - If you replace the detector, you can make accurate measurements by adjusting the cell constants with key operations.
- Equipped with digital communication output RS-232C as standard.
- OTwo alarm points can be set

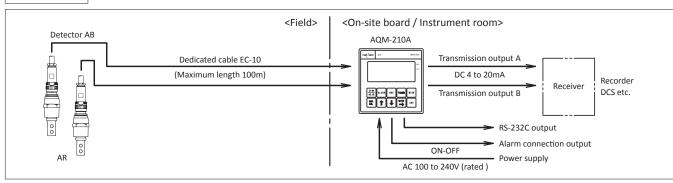
You can set two alarm points corresponding to the measured value, the ratio of the two measured values, and the removal rate. When an alarm occurs, a non-voltage contact is output along with an alarm display.



- OThe transmission output is an isolated DC 4 to 20mA, 2 circuits.
- Since it is an input / output isolated type, it can be used with all externally connected devices.
- OYou can easily judge the quality of the detector and converter.

By disconnecting the detector connector and connecting the equivalent resistance unit instead of the detector, it is possible to determine that the problem is caused by either the detector side or the converter side (including the cable).

### Configuration



#### **Standard Specifications**

Product name : Panel type resistance meter

Model : AQM-210A

Measurement method: Metal 2-electrode type

Measurement range:

Display ...0 to 20MΩ·cm (0 to 200k/2M/20M)

[0.1/cm]

Output ...0 to 25%/50%/100% of measurement

range

Can be set to 25% or more

Temperature ...-5 to 120°C\*1 \*2, Resolution0.1°C

Display : Digital LCD

Temperature : Compensation range ... –5 to  $120^{\circ}C^{*_3}$  compensation Temperature element... Thermister

(Built-in detector)

Transmission output: Insulated type, DC 4 to 20mA, Load

resistance  $650\Omega$  or less, 2 circuits, ratio

of two measurements, exclusion rate

Alarm function : Number of circuits...2 circuits

Setting range...Measured value0to FS,

Ratio of measured values Also supports removal rate Connection output ...Novoltagec

connection

Contact capacity...AC 250V 3A or DC

30V 3A (Load resistance)

Alarm display...Displayed when an

alarm occurs

Number of detector : Up to 2

connections

Other function : Scale over display ...LCD display

flashes

Operation check of transmitter...

Depends on the equivalent resistance

unit

Function : Linearity...Within  $\pm 0.5\%FS$  (Without

detector)

Repeatability ...Within  $\pm 0.3\%FS$ 

(Without detector)

Power : AC 90 to 264V, 50/60Hz

Power Consumption: Approx. 10VA

Ambient temperature : -10 to  $50^{\circ}C$ , 95%RH or less

/ humidity

Case : Material...Aluminum, plastic

Installation method...Panel mounting

Panel cut...92(W)×92(H)mm

External dimension  $:96(W)\times96(H)\times171(D)mm$ 

Weight : Approx.0.8 kg

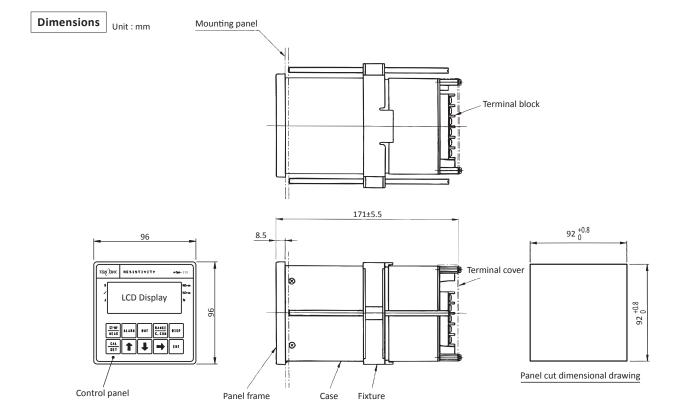
\*1. It depends on the combination detector.

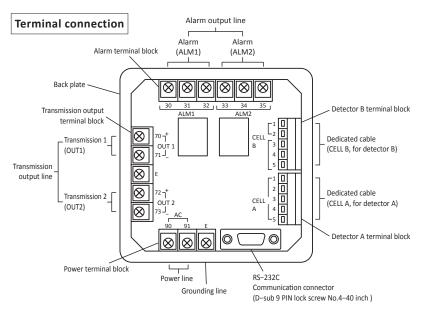
\*2. The temperature display is a rough guide

\*3. However, if the liquid temperature rises above 80°C,

take measures to prevent sudden changes in temperature unevenness.

..Displayed when an



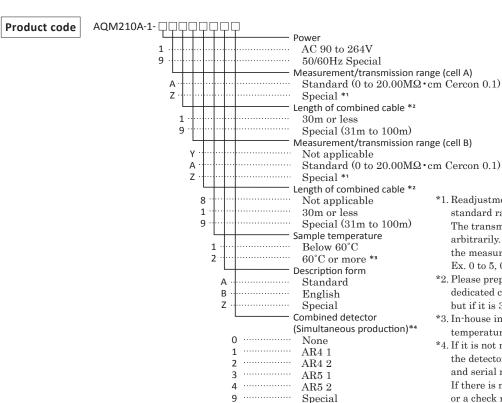


#### **RS-232C Communication spec**

Standard : JIS X5103 compliance Transmission method : Asynchronous Half-duplex

communication

 $\begin{array}{lll} \mbox{Baud rate} & : 9600 \mbox{bps} \\ \mbox{Data length} & : 8 \mbox{bit} \\ \mbox{Parity check} & : Non\mbox{-parity} \\ \mbox{Stop bit} & : 1 \mbox{bit}. \end{array}$ 



- \*1. Readjustment is required except for the standard range of 0 to 20.00 MΩ·cm.

  The transmission output range can be set arbitrarily. However, a width of 25% or more of the measurement display range is required.

  Ex. 0 to 5, 0 to 10, 5 to 20MΩ for 0 to 20MΩ·cm
- \*2. Please prepare EC-10 type separately for the dedicated cable. The maximum length is 100m, but if it is 30m or more, it will be readjusted.
- \*3. In-house inspection is performed with high temperature samples of 60°C or higher.
- \*4. If it is not manufactured at the same time as the detector, please let us know the model name and serial number of the combination detector. If there is no detector, a resistor plug (for AR4) or a check resistor (for AR5) is not included.

### Combined detector

#### **Standard Specifications**

Product name : Detector for resistance meter

Model : AR4-212 or AR5-212

Cell constant : 0.1/cm

Thermometer : Thermister (Enclosed in the inner pole)

Test solution : Temperature...0 to 100°C conditions Pressure ...0.5MPa or less Material : Electrode ...Titanium

Bushing ...SUS316 (Teflon coating)

Seal...Viton

Connector ...Plastic (AR4) Connector box...ADC-12 (AR5) Piping connection : R 3/4 Screw in

Dedicated cable : EC-10

 $\phi 8,$  Standard length 5m (Maximum

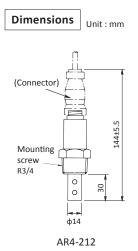
length 100m),

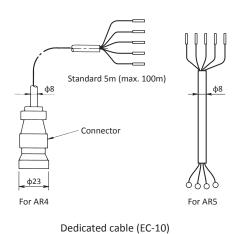
With connector (Drip-proof structure)

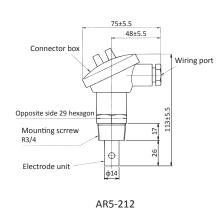
(AR4),

With connector box (Drip-proofu

structure) (AR5)

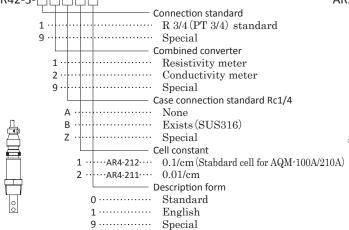


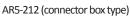


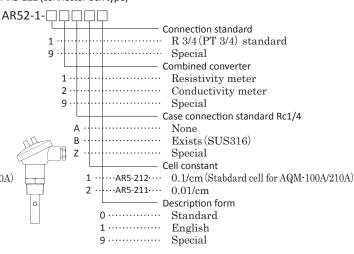


## Product code













Please read the operation manual carefully before using producuts.

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