

PANEL TYPE RESISTIVITY METER

AQM-100A

This is a compact, lightweight panel-mounted resistivity meter.

Ultra-pure water resistivity (0 to 20MΩ·cm) of semiconductor plants, etc. is measured by performing wide temperature compensation of 0 to 100°C.

It is also possible to measure ultrapure water near the hot water sterilization process. Display the transmission output (DC 4 to 20mA), alarm output (2-circuit c-contact), and sample water temperature.

Features

- Compact DIN96 sizes
Compact and light weight:
96mm×96mm (DIN standard) ×90mm
- Two detectors can be connected (optional).
Displays two water qualities by switching the key operation. The transmission output and adjustment output correspond to only one detector.
- Cell constant adjustment function is provided.
When the detector is replaced, accurate measurements can be made by adjusting the cell constant with key operation.
- Two alarm points can be set
Two alarm points corresponding to the measured value can be set.
When an alarm occurs, a non-voltage contact is output together with the alarm display.
- Transmission output is DC 4 to 20mA of isolation.
Since it is an I/O insulated type, it can accommodate any external connection device.



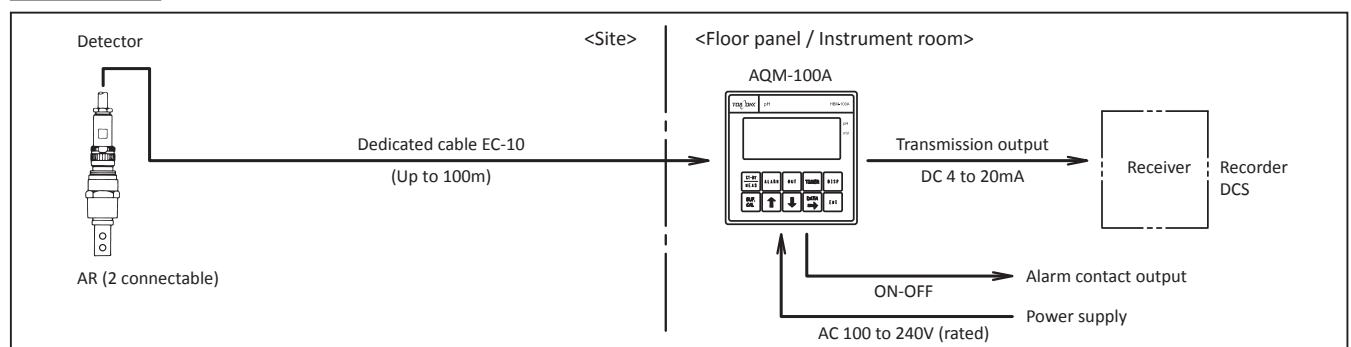
AR4-212



AR5-212

- Quality of the detector and the converter can be easily determined.
By disconnecting the detector connector and connecting an equivalent resistance unit instead of the detector, it is possible to determine whether the problem is caused by either the detector side or the converter side (including the cable).
- RS-232C output is available (optional).
Data can be imported to a PC.

Composition

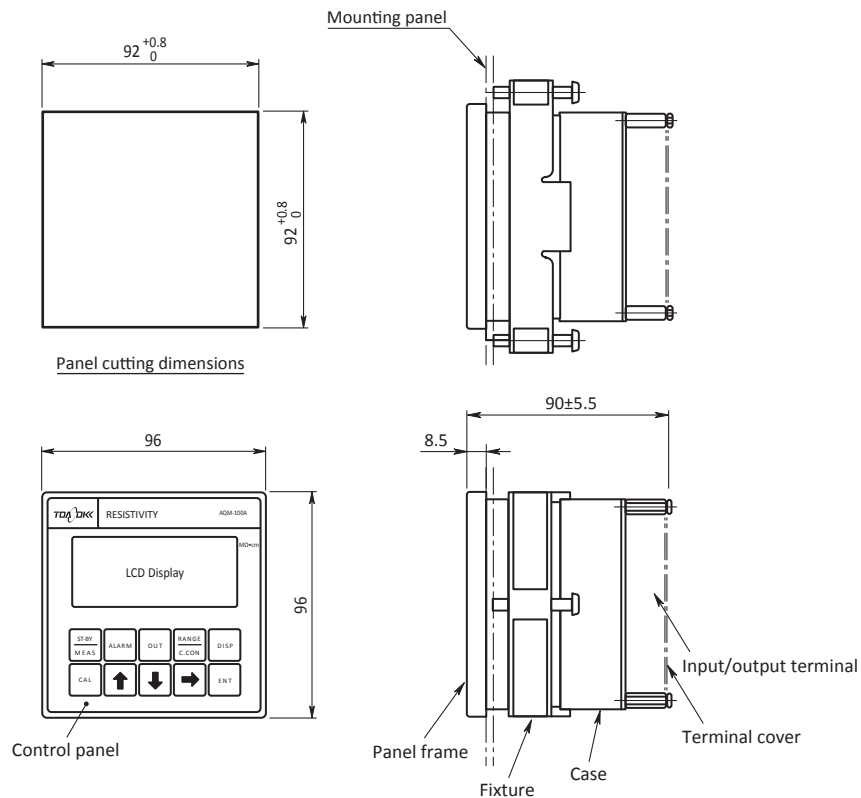


Standard Specifications

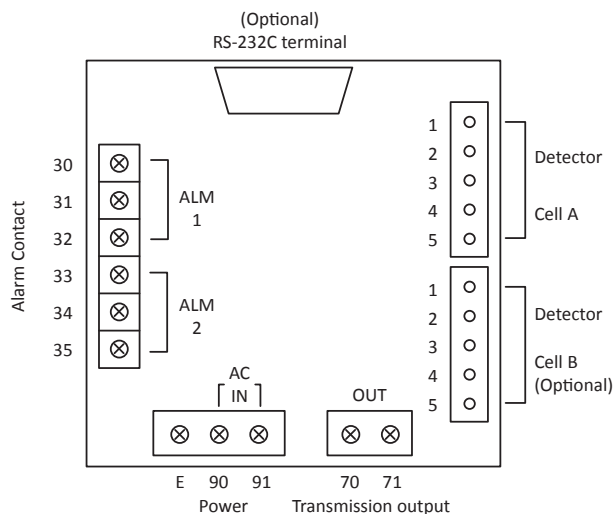
Product name	: Panel type resistivity meter	Numbers of detectors	: Up to 2 (the second one is optional at order)
Model	: AQM-100A	Other functions	: Scale over display...Display blinks
Measurement method	: Metal 2-electrode type	Performance	: Linearity...Within $\pm 0.04M\Omega/cm$
Measurement range	: Resistivity... 0.00 to 20.00M $\Omega \cdot cm$ (at 25°C) Display digit (20.00 or 20.0) can be changed by key operation.	(with equivalent resistance)	Repeatability ...Within 0.02M/cm Temperature compensation...Within $\pm 0.20M\Omega/cm$
	Temperature... 0.0 to 99.9°C, resolution 0.1°C (display only)	Power source	: AC 90 to 264V 50/60Hz
Display	: 4-digit digital liquid crystal display (LCD)	Power consumption	: Approx. 5VA
Temperature compensation	: Temperature range...0 to 100°C Temperature detector: Thermistor (built into the detector)	Ambient temperature	: -10 to 50°C, less than 95%RH / humidity
Transmission output	: Isolated, DC 4 to 20mA, loading resistor 650 Ω or less	Case	: Material...Main unit; aluminum Window; Resin
Alarm function	: Number of circuits...2 circuit c contact Setting range...0 to 20M $\Omega \cdot cm$ Contact output...Non-voltage contact Contact capacitance...AC 250V 3A (resistive loading) Alarm display...ALM1, 2 blinks in the display	External dimension	: 96 (W) \times 96 (H) \times 90 (D) mm
		Weight	: Approx.0.5 kg

Dimensions

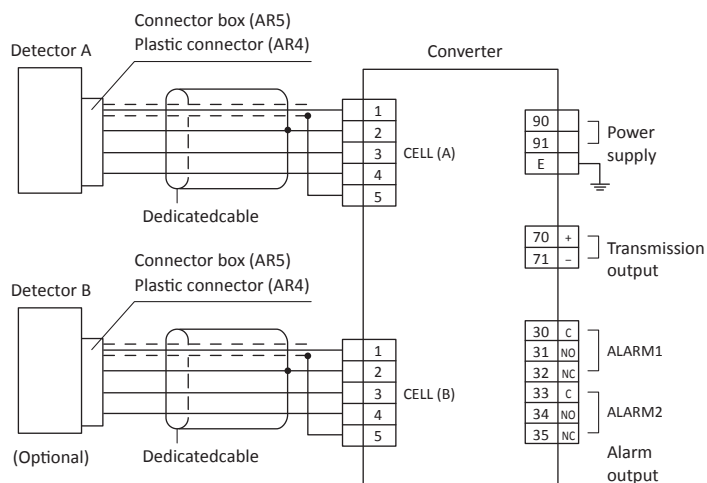
Unit : mm



Terminal connection diagram



Connection diagram between devices



(Note) Either Alarm output 1 or Alarm output 2 can be set to the upper or lower limit.

Product code

AQM100A-2-	□	□	□	□	□	□	□	□	□							
1	9	1	2	A	Z	1	2	A	B	Z	0	1	2	3	4	9
		Power	Special	Transmission output	Sample temperature	Description form	Combined detector (Simultaneous production) ^{*3}									
		AC 90 to 264V 50/60Hz	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	Less than 60°C	Standard	None									
		Special	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	English	None									
		Transmission output	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		DC 4 to 20mA	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		DC 4 to 20mA and with RS-232C interface	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		Combined cabled length ^{*1}	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		30m or less	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		Special (31 to 100m)	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		Sample temperature	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		Less than 60°C	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		60°C or more ^{*2}	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		Description form	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		Standard	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		English	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		Special	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		Combined detector (Simultaneous production) ^{*3}	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		None	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		1 AR4	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		2 AR4	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		1 AR5	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		2 AR5	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									
		Special	DC 4 to 20mA	DC 4 to 20mA and with RS-232C interface	60°C or more ^{*2}	Special	None									

- *1. For the dedicated cable, prepare EC-10 type separately.
The maximum length is 100m, but it is readjusted for 30m or more
- *2. In-house inspection is performed on samples with high temperatures of 60°C or higher.
- *3. If it is not manufactured simultaneously with the detector, please provide the model name and the manufacturing number of the combination detector.
If no detector is used, the resistive plug (for AR4) or the checking capacitor (for AR5) is not included.

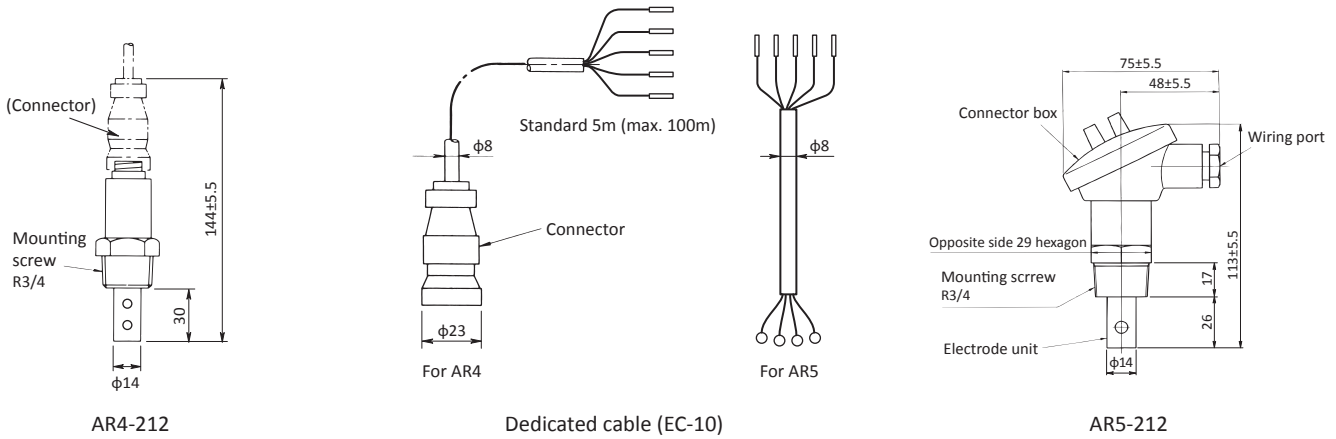
Combined Detector

Standard Specifications

Product name	: Detector for resistivity meter	Pipe connector	: R 3/4 screw in
Model	: AR4-212 or AR5-212	Dedicated cable	: EC-10
Cell constant	: Approx. 0.1/cm		
Resistance temperature detector	: Thermistor (encapsulated in inner pole)		
Condition of test solution	: Temperature...0 to 100°C Pressure...0.5MPa or less		
Material	: Electrode...Titanium Bushing...SUS316 (Teflon coating) Seal...FKM Connector...Plastic (AR4) Connector box...ADC-12 (AR5)		
			Outer diameterφ8, standard length 5m (max.100m), with connector (drip-proof construction) (AR4), with connector box (drip-proof construction) (AR5)

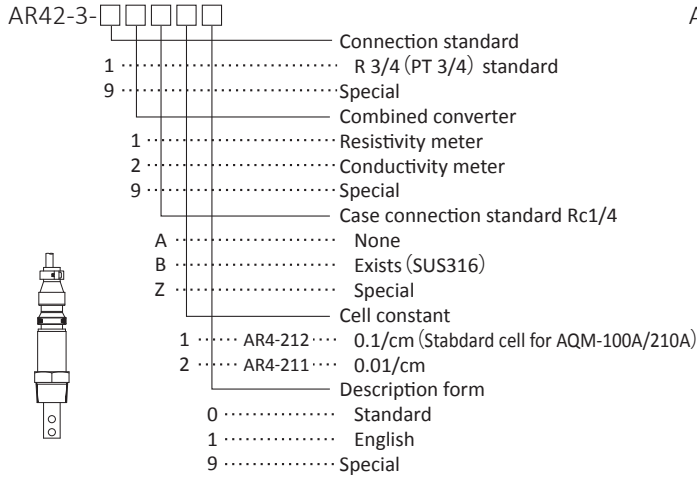
Dimensions

Unit : mm

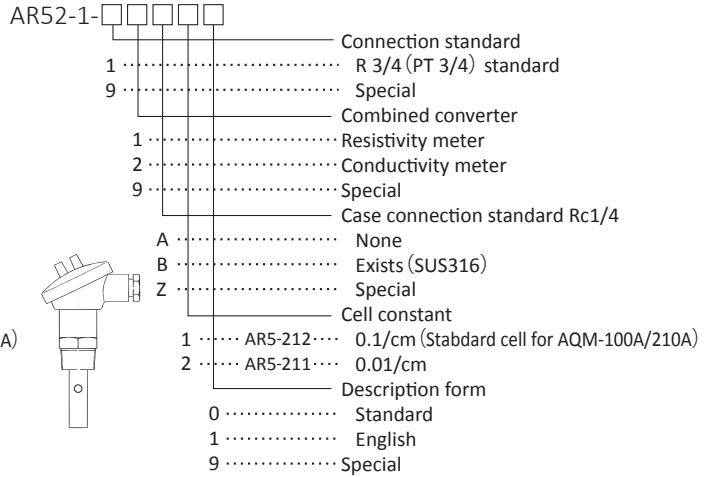


Product code

AR4-212 (connector type)



AR5-212 (connector box type)



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CAUTION

Please read the operation manual carefully before using products.