

SPECIFICATION SHEET



PANEL TYPE CONDUCTIVITY ANALYZER

WBM-100

This panel mount type conductivity analyzer is compact and light weight.

This is suitable for use in a broad range of applications from ultra-pure water production to industrial effluent. And the temperature compensation covers -5 to 120°C .

This conductivity analyzer has some functions like isolated output (DC 4 to 20mA), alarm output terminal (2 circuit change over) and display of sample water temperature.



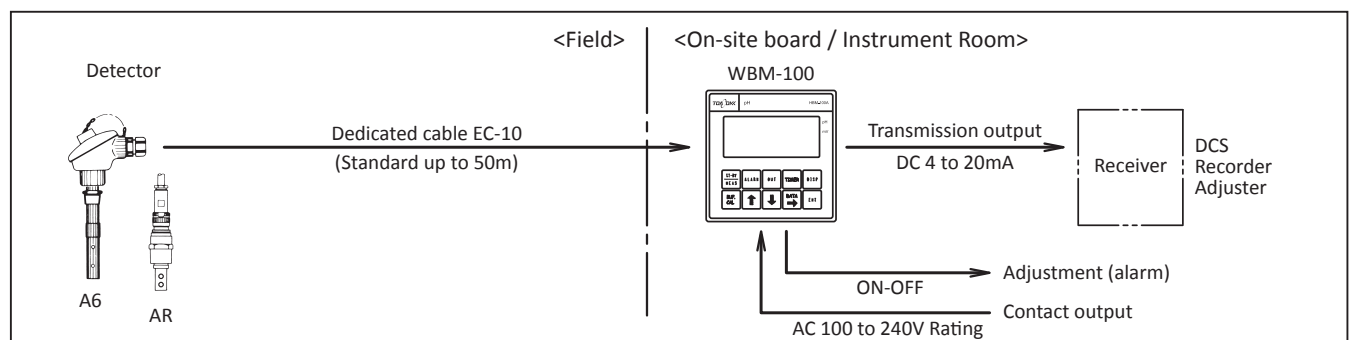
Features

- Compact DIN96 size
Dimensions: 96×96×145mm, panel cut-out 96×96mm (DIN size) Light weight
- The temperature compensation by microcomputer
Highly accurate temperature compensation is possible for wider temperature ranges compared to analog method.
- It is possible to make measurement from -5 to 120°C .
The detector can be used near hydrothermal germicidal treatment process for ultra-pure water.
- Free power supply with voltage between 85 to 265V, AC 50/60Hz.
- Temperature indication
Sample temperature can be monitored as each location as well as conductivity
- Cell constant adjustment function is provided.
It can make accurate measurement by key operation when replacement of a detector.
- Two control points can be set
It is possible to set two control points within measurement range.
If alarm arises, it is displayed on front panel with voltage free contact output.
- Output is isolated type and DC 4 to 20mA
Input/output terminals are isolated. It is available to connect to any external device.

Standard specifications

Product Name	: Panel type conductivity analyzer
Model	: WBM-100
Measurement Range	: By selecting a cell constant out of 4, One of the following types can be selected.
Display	..a.0 to 20 $\mu\text{S}/\text{cm}$ [cell constant] (3ranges; 0 to 0.2/0 to 2/0 to 20 $\mu\text{S}/\text{cm}$) [0.01/cm]
	b.0 to 200 $\mu\text{S}/\text{cm}$ (0 to 2/0 to 20/0 to 200 $\mu\text{S}/\text{cm}$) [0.1/cm]
	c.0 to 2000 $\mu\text{S}/\text{cm}$ (0 to 20/0 to 200/0 to 2000 $\mu\text{S}/\text{cm}$) [1.0/cm]
	d.0 to 20mS/cm (0 to 0.2/0 to 2/0 to 20mS/cm) [10.0/cm]
Output	..Transmission output range can be set freely. However it is requires 25% or more width of a measurement range.
Temperature	.. -5 to 120°C , Resolution 0.1 $^{\circ}\text{C}$
Display	: Digital LCD
Temperature compensation	: -5 to 120°C Temperature element; Thermistor (Built-in detector) Accuracy; Within $\pm 1\%$ FS (with equivalent resistance)
Transmission output	: Insulation type, 4 to 20mA DC, load resistance 600 Ω or less

Configuration

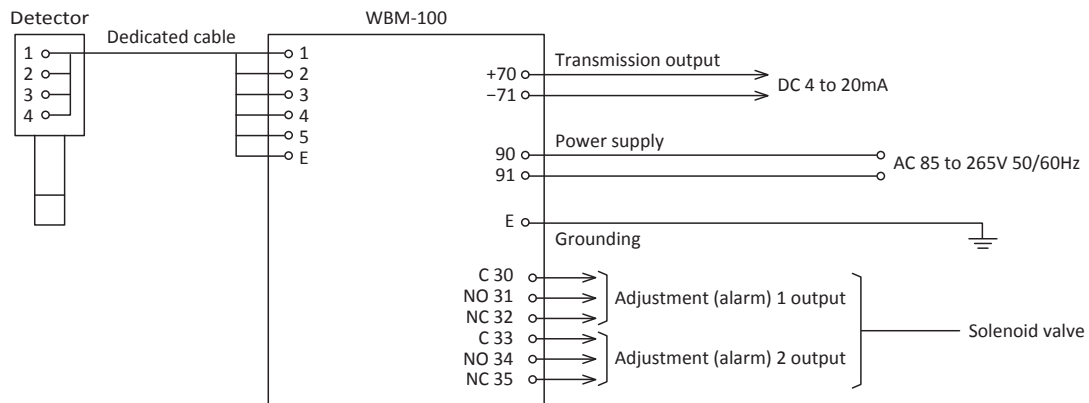


Adjustment (alarm) output : Circuits...2 circuits (H/L)
 Setting range...Measurement value 0 to FS (Full scale selection range)
 Contact output ...No-voltage contact
 Contact capacity...AC 250V 3A
 Alarm display...Displayed when an alarm occurs

Other functions : Scale over display ...LCD display flashes
 Function : Linearity...Within 0.1%FS 1digit (exclusive sensor)
 However, if the cable length is 50m and more, it is within 1.0%FS
 Repeatability...Within $\pm 0.1\%$ FS ± 1 digit (exclusive sensor)

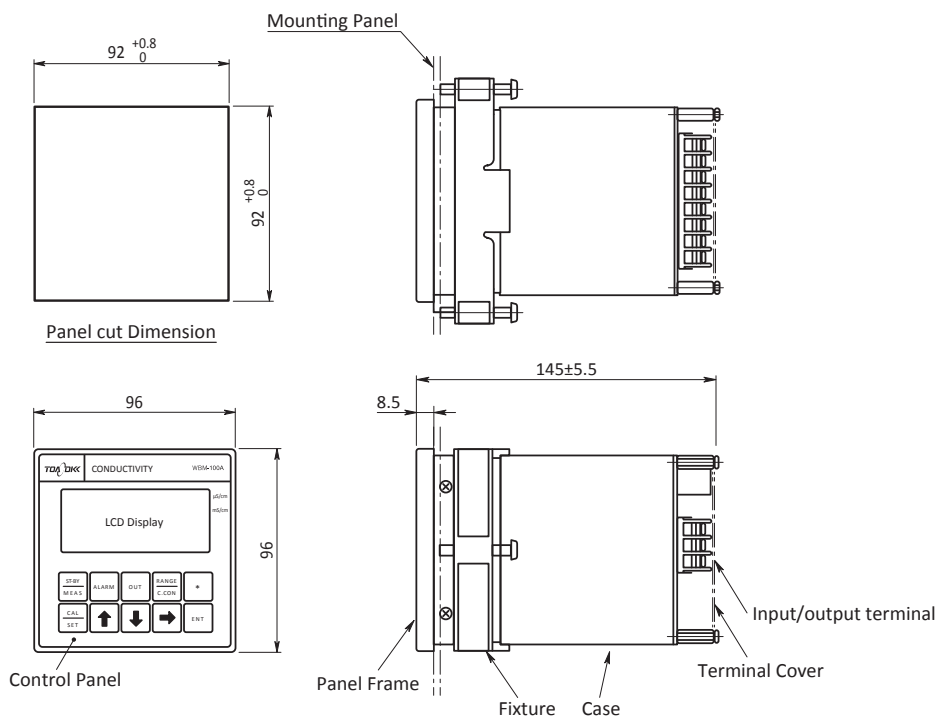
Power : AC 85 to 265V, 50/60Hz
 Power supply : Approx. 1.0 VA
 Ambient temperature : -5 to 50°C , 95% RH or less
 Structure : Panel mounting, indoor installation (IP30)
 Material : Main unit...Alluminum
 Display / control unit ...Polyester film
 Mounting method : Panel mounting
 Dimensions : 96 (W) \times 96 (H) \times 145 (D)mm
 Panel cut... 92 (W) \times 92 (H)mm
 Weight : 1kg

Wire Schematic



Dimensions

Unit : mm



Product code

WBM100-2-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	1				Power AC 85 to 265V 50/60Hz
	A				Standard cell constant and measurement (display) range *1 0.01/cm 0 to .2000/2.000/20.00 μ S/cm
	B				0.1/cm 0 to 2.000/20.00/200.0 μ S/cm
	C				1.0/cm 0 to 20.00/200.0/2000 μ S/cm
	D				From here above in cm 10.0/cm 0 to .2000/2.000/20.00mS/cm
	G				From here below in m 1/m 0 to 20.00/200.0/2000 μ S/m
	H				10/m 0 to .2000/2.000/20.00mS/m
	J				100/m 0 to 2.000/20.00/200.0mS/m
	K				1000/m 0 to 20.00/200.0/2000mS/m
	Z				Special
					Transmission output (DC 4 to 20mA) range *2
	1				The above standard measurement (display) range
	8				Other specifications
					Combines dedicate cable length *3
	1				50m or less
	2				50m to 100m (max)
					Language
	A				Japanese (standard)
	B				English
					Combined Detector *4
	0				None
	1				Simultaneous production

- *1. The above measurement (display) range is determined by the reference cell constant of the combined detector, and is classified into low, medium and high, respectively. There are 3 ranges.
- *2. The measurement (display) range of A to K above is set to the middle range.
"Other specification" can be set arbitrarily with a width of 25% or more of each range FS value.
For example, if the measurement (display) range is 0 to 20.00 μ S/cm, the minimum setting is 0 to 5.00 μ S/cm or 5.00 to 10.00 μ S/cm.
- *3. If the length of the dedicated cable exceeds 50m, special adjustment is required, but various performances may be degraded.
- *4. If the detectors are not manufactured at the same time, please inform us of the "model name" and "manufacturing number" of the detectors to be combined.

Note

1. There are eight types of measurement ranges (FS) 0 to 20/200/2000 μ S/cm, 0 to 20mS/cm, 0 to 2000 μ S/m, 0 to 20/200/2000mS/m depending on combined standard cell constant.
2. Two-point control (alarm) output (two-circuit c-contact) such as upper/lower limit, upper/higher limit, or lower/lower limit is provided as standard.
3. The temperature compensation range and temperature measurement (display) range are -5 to 120°C.
4. Combination detector is A6 type or AR4/5 type. The dedicated cable is EC-10 type (maximum 100m).

Combined Detector (Typical example)

Product Name : Conductivity Detector
 Model : A6 cell, AR cell
 Cell constant : A6 cell...0.01/cm, 0.1/cm, 1.0/cm,
 AR cell (compact / pure water)...0.1/cm
 Thermometer : Thermistor (Sealed in inner pole)
 Sample condition : Temperature...0 to 100°C
 Pressure.....1MPa or less
 AR cell is 0.5MPa or less

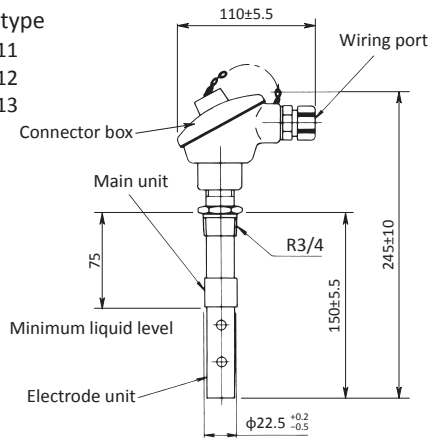
Material : Electrode.....SUS316
 AR cell is titan
 Electrode insulator...Glass / PTFE
 AR cell is FKM / PPS
 Mounting unit ...SUS316
 Connector box....Aluminum casting
 Case...SUS316 or PP
 Wiring connection : R3/4crewed or flange connection
 Dedicated cable : EC-10 (φ8) up to standard 50m

Dimensions

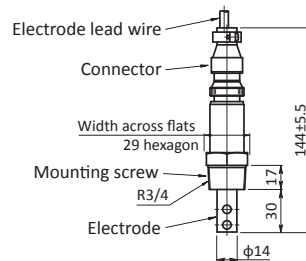
Unit : mm

● Screw type

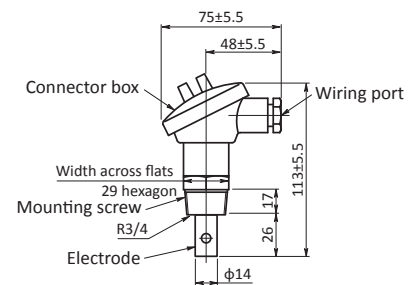
A6-111
 A6-112
 A6-113



AR4-212

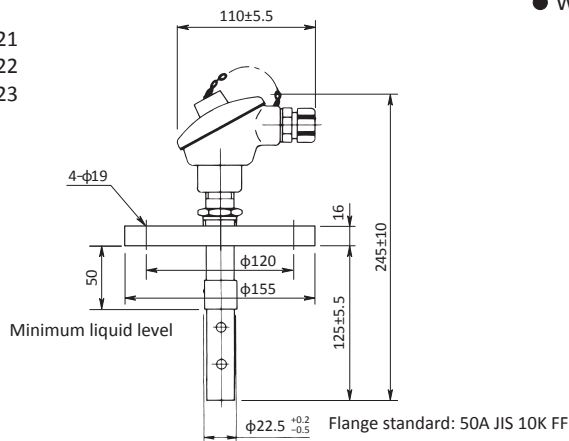


AR5-212



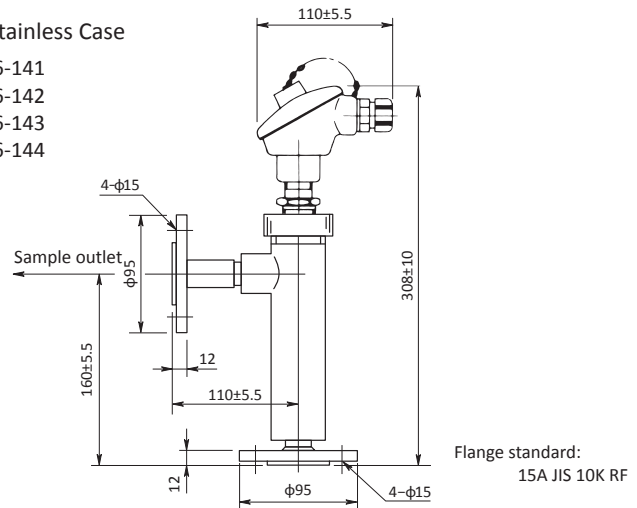
● Flange

A6-121
 A6-122
 A6-123



● With Stainless Case

A6-141
 A6-142
 A6-143
 A6-144



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Please read the operation manual carefully before using products.