PANEL TYPE CONDUCTIVITY ANALYZER   Model: 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 .

This conductivity analyzer has some functions like isolated output (DC4~20mA), alarm output terminal (2 circuit change over) and display of sample water temperature.

FEATURES

Compact DIN96 size
Dimensions: 96x96x145mm, panel cut-out 96x96mm (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 -5~120 *
The detector can be used near hydrothermal germicidal treatment process for ultra-pure water.

Free power supply with voltage between 85~265V, AC50/60Hz.

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 contract output.

Output is isolated type and DC 4~20mA
Input/output terminals are isolated. It is available to connect to any external device.

STANDARD SPECIFICATIONS

Products 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.
   : a. 0~20μ S/cm[Cell constant]
    (3 ranges;0~0.2/0~2/0~20μ S/cm) [0.01/cm]
   : b. 0~200μ S/cm
    (0~2/0~20/0~200μ S/cm) [0.1/cm]

   : c. 0~2000μ S/cm
    (0~20/0~200/0~2000μ S/cm) [1.0/cm]
   : d. 0~20mS/cm
    (0~0.2/0~2/0~20mS/cm) [10.0/cm]

Output range : Transmission output range can be set freely. However it is requires 25% or more width of a measurement range.

Temperature range : -5~120 *, Resolution 0.1
Display   :Digital LCD
Temp. compensation: -5~120 *
   Temp sensor: Thermistor (built in sensor)
   Accuracy: Within ±1%FS (as equivalent resistance)

Output Transmission: 4~20mA DC isolated, max load 650

Control Functions
   Control outputs: 2 (H/L,H/HH,,L/LL)
   Set range: 0~FS (Free setting is allowed)
   Contact output : Voltage free contact
   Contact rating : AC250V 3A

Alarm indication : Displayed on front panel
Other function : Over scale indication : Blinking LCD.
Linearity   : Within ±0.5%FS(Exclusive sensor)
   However, if the cable length is 50m and more, it is within ±1.0%FS

Repeatability : Within 0.1%FS±1digit (exclusive sensor)
Power requirement : AC85~265V, 50/60Hz
Power consumption : Approx. 10VA
Ambient temp. & humidity: -5~50 , 95%RH or less
Construction   : Panel mounted type, indoor (IP30)
Case   Material : Aluminum and plastic
   Mounting :: Panel mounting
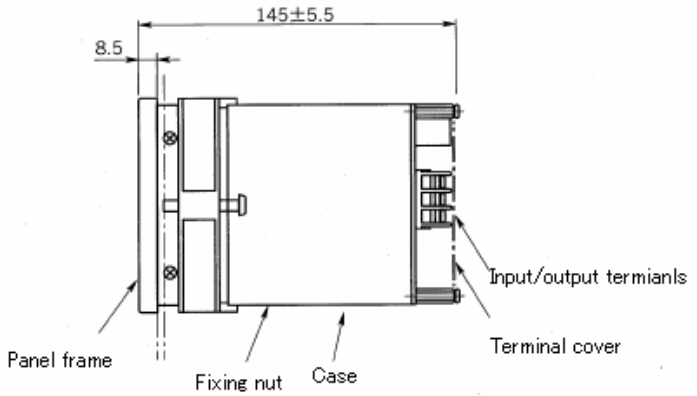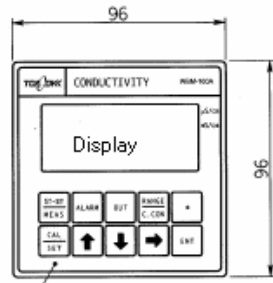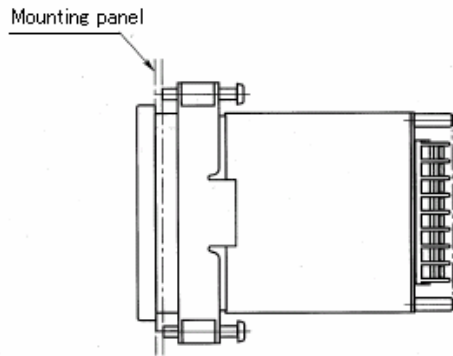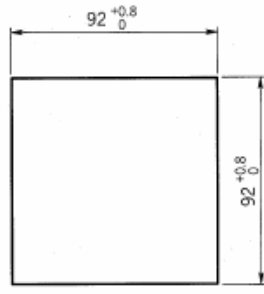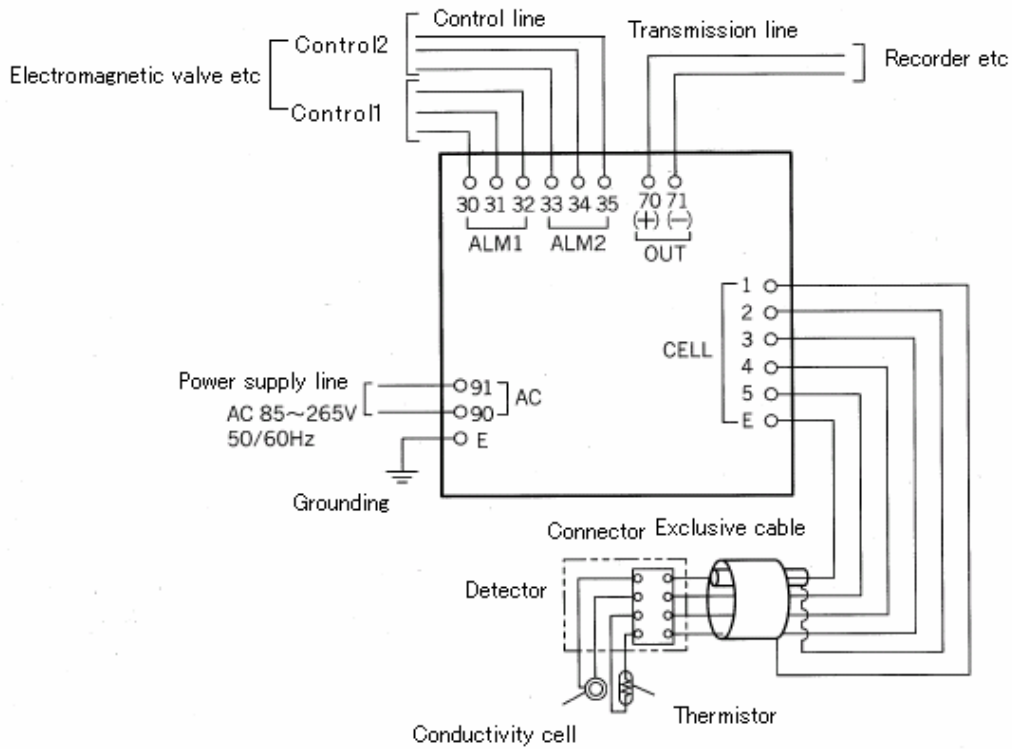   Panel cut out: : 92(W)x92(H) mm
Dimensions : 96(W)x96(H)x145(D)mm
Weight   : Approx.1kg
*Depend on the sensor to be connected

DIMENSIONS

UNIT : mm

$92^{+0.8}_{0}$

$92^{+0.8}_{0}$

Mounting panel

Panel cut-out size

96

96

CONDUCTIVITY

Display

Control panel

8.5

145±5.5

Input/output termianls

Terminal cover

Panel frame

Fixing nut

Case

WIRING SCHEMATIC

Control line

Transmission line

Control2

Electromagnetic valve etc

Recorder etc

Control1

30 31 32 33 34 35
ALM1   ALM2

70 71
(+) (−)
OUT

CELL
1
2
3
4
5
E

Power supply line
AC 85~265V
50/60Hz

91
90
E

AC

Grounding

Connector Exclusive cable

Detector

Conductivity cell

Thermistor

SYSTEM CONFIGURATION

*1. By the standard cell constant of combined detector, measurement range is decided, and there are 3 each ranges (low, middle, high)

*2. Each of above measurement range A~K, is arranged as middle range.

  "Custom spec" means that each range can be set freely 25% or more width of measuring range.

  For example, if measurement range is 0~20.00μ S/cm, it can be set minimum 0~5.00μ S/cm, or 5.00~10.00μ S/cm etc.

*3.If the length of cable is above 50m, it is required to special adjustment, and performance deterioration might occur.

*4.In case a detector is individually produced at the factory, data for existing detector such as type and serial No. are required.

Combined Sensor

Product name : Conductivity sensor
Model : A type, AR type etc.
Cell constant : $0.01/0.1/1.0/10.0 cm^{-1}$
Temp sensor : Thermistor (sealed inside inner electrode)
Sample conditions:
  Temperature : 0~100
  Pressure : 1MPa or less (A type)
        0.5MPa or less (AR type)

Materials Main body: SUS 316
  Connector : Plastic
  Connector box: Aluminum casting
  Electrode :SUS 316
  Electrode insulation: Glass(hermetic seal)
             PTFE (Teflon)
  Case : SUS316 or P.P(polypropylene)
Piping connections :R3/4 screw-in type
Piping temp range :0~100
Connection cable : OD 8mm (EC-10)standard is 50m or less (max 100m).

Extension cable

The extension cable is a special cable for use with conductivity transmitter. It is used for connection between transmitter and detector.

Model : EC-10

External diameter : 8mm

Insulator : Polyethylene and vinyl
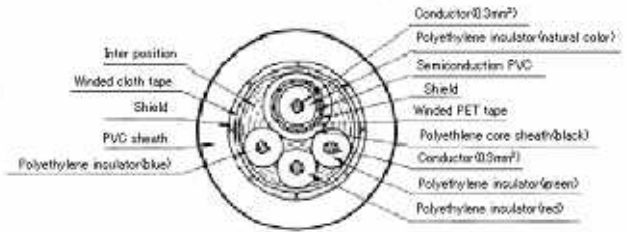
External coating : Vinyl

Insulating resistance between wire and lines
10 M or more/100m

Extended distance : 100m at maximum, not allowed to connect lines in the middle.

Standard length : 5~100m in units of 5m.

Weight : Approx.0.5kg/5m

Model EC-10 Cross section diagram

SENSOR DIMENSIONS
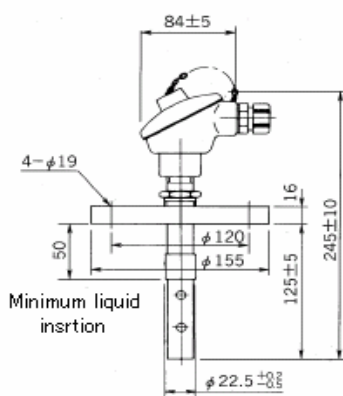
● Screwded type

Models:
A6-121
A6-112
A6-113
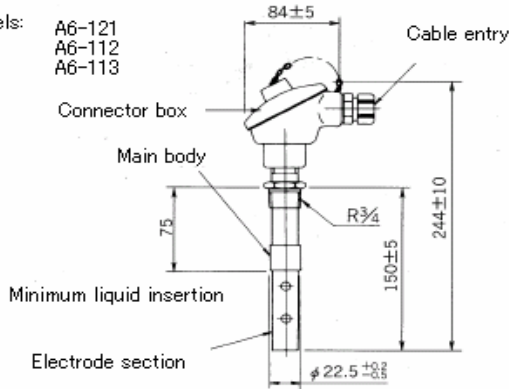
Models: AR4-212
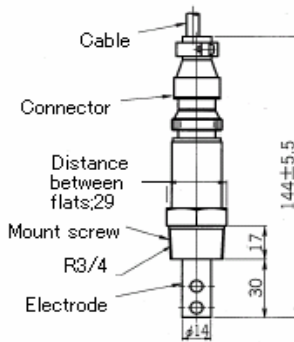
● Franged type

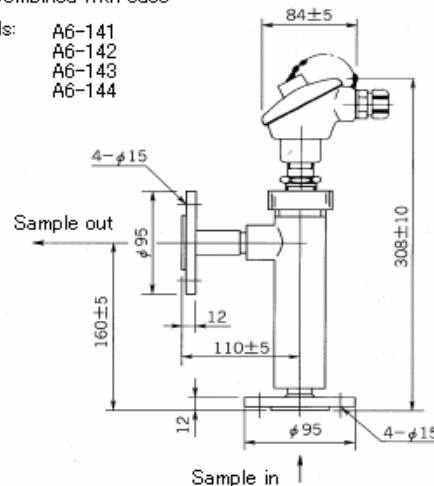Models:
A6-121
A6-122
A6-123

● Combined with case

Models:
A6-141
A6-142
A6-143
A6-144

DKK-TOA CORPORATION

⚠ **CAUTION** Do not operate products before consulting instruction manual.