

SPECIFICATION SHEET



CONDUCTIVITY ANALYZER / TRANSMITTER (4 linear type)

WBM-160

Robust aluminum die-cast 4-wire (AC-free power) field-installation electrical conductivity meter (2-electrode) transducer.

By selecting 4 types of standard cell constant for each type, the system can accommodate a wide measuring range from ultrapure water to factory wastewater.

It is equipped with a transmission output DC 4 to 20mA for electric conductivity and water temperature, and a 2-point adjustment (upper/lower limit alarm-c contact) output.

For details of the combined detector (electrode), refer to the separate industrial electrical conductivity detector spec sheet.



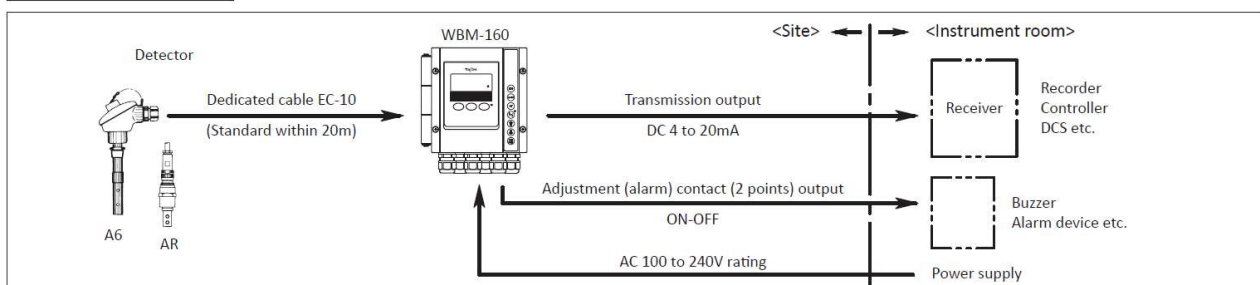
Features

- **Changing the transmission output range**
Within the specified measuring range, the transmission DC 4 to 20mA can be set to 25% or more.
 - **Temperature measurement display and output**
The temperature of the sample water is measured and displayed (-5 to 120°C) and the transmission output DC 4 to 20mA is output.
 - **Adjustment of the measured value**
You can adjust the measurement to a known electrical conductivity value.
 - **Simple operation with the waterproof seat key on the front**
Without opening the door, the waterproof seat key on the front can be used to change the setting and other operations.
 - **Automatic return to measurement mode**
When 2 hours have elapsed in maintenance mode, the unit automatically returns to measurement mode.
- [Option]
- **RS-232 C Output**
Data can be imported to a PC.
 - **Power off signal**
Outputs a closed contact when the power supply is cut off.
 - **Hood (shade)**
Required for installation under direct sunlight.
 - **Heavy duty coatings**
Can be used in salt and corrosion-resistant atmospheres.

Standard specifications

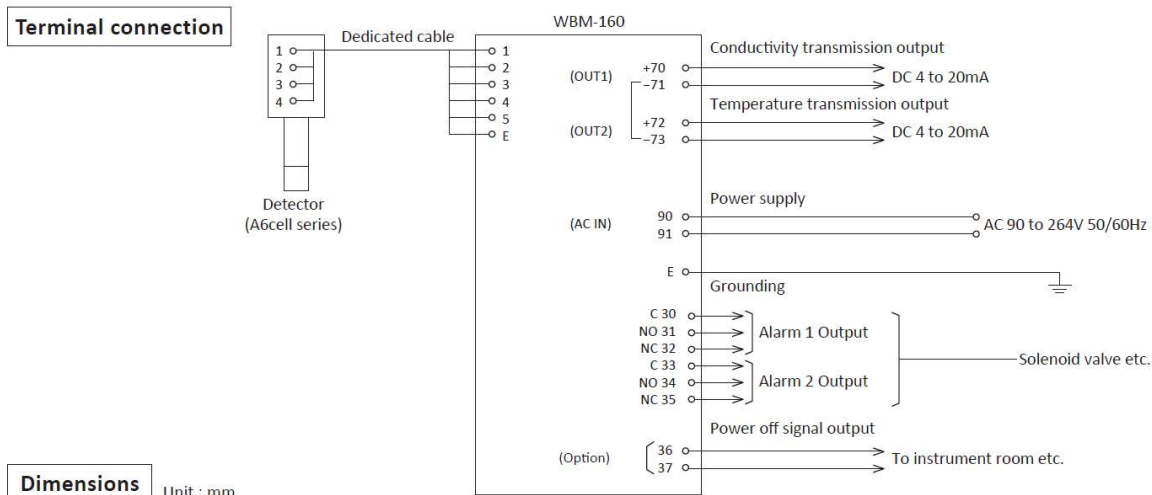
- Product Name : Electric conductivity meter transducer type
 Model : WBM-160
 Measurement Range : By selecting from among four cell constants, Specify the following 1 to 4 types of selection.
- Indication ..(1)0 to 20 μ S/cm (3range) [cell constant] (0 to 0.2/0 to 2/0 to 20 μ S/cm [0.01/cm])
 (2)0 to 200 μ S/cm (0 to 2/0 to 20/ to 200 μ S/cm) [0.1/cm]
 (3)0 to 2000 μ S/cm (0 to 20/0 to 200/0 to 2000 μ S/cm)[1.0/cm]
 (4)0 to 20mS/cm (Electromagnetic induction type recommended) (0 to 0.2/0 to 2/0 to 20mS/cm) [10.0/cm]
- Temperature ..-5 to 120°C minimum indication 0.1°C
 Temperature compensation: -5 to 120°C
- Temperature compensation : Cable length less than 2.0 m
 accuracy Within \pm 1.5%FS (With an equivalent resistance)
 Cable length 20m to 50m
 Within \pm 2.0%FS (With an equivalent resistance)
- Transmission output : Electrical conductivity ... 25% or more than measurement range (Optional setting is possible)
 Temperature.....10°C or more range in units of 1°C
 (Can be arbitrarily set in the range of -5 to 120°C)

Composition diagram



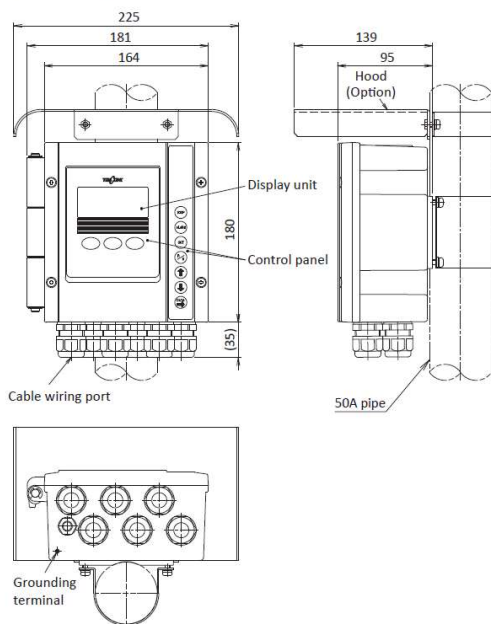
Performance : Linearity.....Within $\pm 0.5\%$ FS
 (Excluding detector) However, if the cable length is 20 to 50m, it is within $\pm 1.0\%$ FS
 Repeatability...Within $\pm 0.2\%$ FS
Alarm feature : Target...Conductivity
 Alarm contact points...2 points with contact c
 Contact rating...AC 250V 3A or less (resistance load)
 DC 30V 3A or less (resistance load)
 Setting range...Free setting is allowed (2 points), 0 to FSa
Power off output (option) : Outputs closing contact point signal when power is off.
 Contact rating ...AC 250V 3 A or less (resistance load)
Display : Liquid crystal display
Transmission output : Insulation type ...DC 4 to 20mA,
 Resistance load 650Ω or less
 Conductivity and liquid temperature (2 circuits common)

Ambient temperature, : -20 to 55°C , 95%RH or less (However humidity make sure there is no condensation)
 Power source : AC 90 to 264V 50/60Hz
 Power consumption : Approx. 10VA
 Structure : Outdoor installation, IP6 5(dust resistant, jet-proof type)
 Dimenstions : 181(W) \times 180(H) \times 95(D)mm(Water stopper not included)
 Mounting method : 50A pipe mounting
 (Option: wall, rack installation)
 Material : Main unit ...Aluminum die cast
 Window...Polyester resin
 Paintings : Metallic silver
 Wiring port : Cable gland 6 points
 (Outer diameter for 6 to $\phi 12$ cable)
 Possible to remove the cable grounds and connect an electric wire tube (G1/2 \times 6)
 Weight : Approximately 2kg

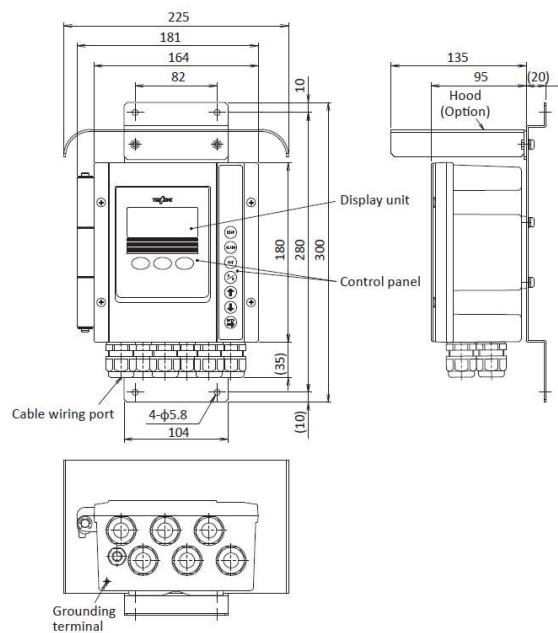


Dimensions Unit : mm

● Pole installation



● Wall or rack installation



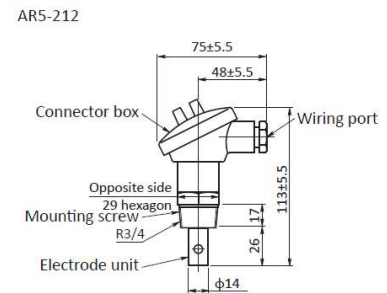
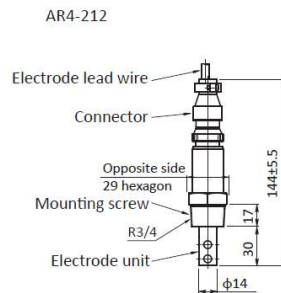
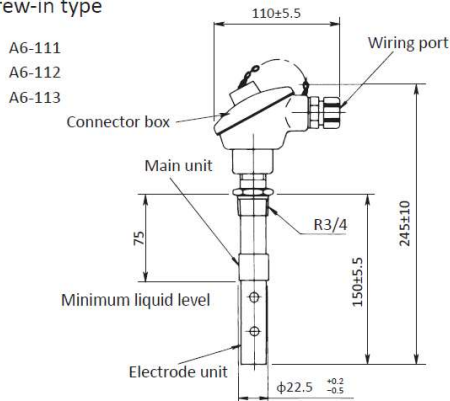
■ Combination detector (typical example)

Product name : Conductivity detector
 Model : A6 cell, AR cell
 Cell constant : A6 cell...0.01/cm, 0.1/cm, 1.0/cm,
 AR cell (for small and pure water)...0.1/cm
 Resistance : Thermistor (encapsulated in inner
 temperature detector pole)
 Sample water : Temperature...0 to 100°C
 condition : Pressure...1MPa or less
 AR cell is 0.5MPa or less

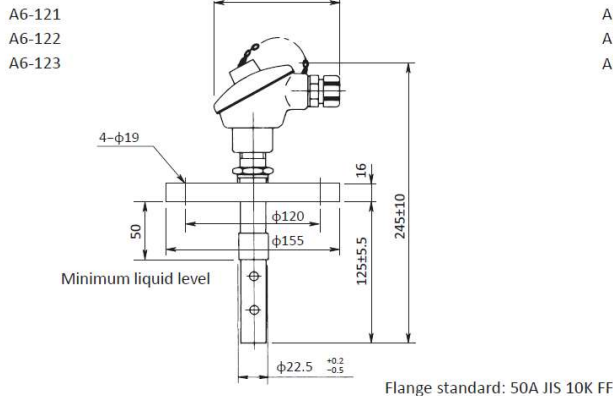
Material : Electrode...SUS316
 Pipe connection : AR cell is titanium
 Dedicated Electrode insulator...Glass / PTFE
 cable : AR cell; FKM·PPS
 Mount...SUS316
 Connector box...Aluminum casting
 Case...SUS316 or PP (polypropylene)
 : R 3/4screwed or flanged connection
 : EC-10 (outer diameter φ8)

Dimensions Unit : mm

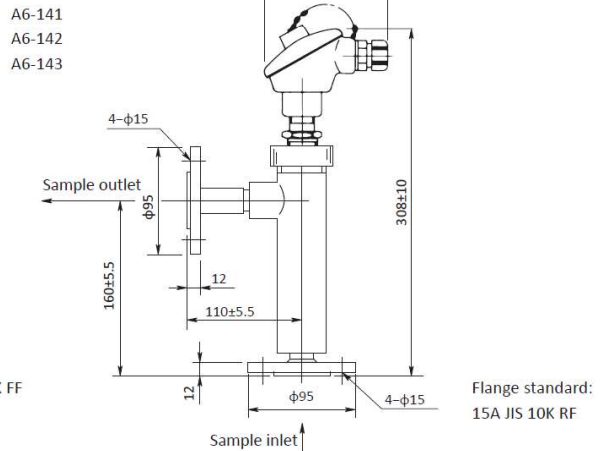
● Screw-in type



● Flange type



● With stainless case



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Please read the operation manual carefully before using products.

<http://www.toadkk.com/english>

Information and specifications are subject to change without notice.