SPECIFICATION SHEET



PANEL TYPE ELECTRODELESS CONDUCTIVITY ANALYZER

MBM-100A

This is a small and lightweight electric conductivity analyzer of panel mount type with electromagnetic induction measurement method. Transmission output is 4 to 20mA. 2contact points are equipped. Power supply is universal power source.

Detectors are made of heat-resistant vinyl resin (C-PVC) or PFA, having an excellent anticorrosion and heat-resistance. For details, please refer to separate detector specification sheet.

Features

- ○Compact DIN96 size 96 x 96 (DIN size) x 90 mm
- ○Temperature compensation with microprocessor Wide-range and highly accurate temperature compensation. Selectable from (i) NaCl temperature characteristic (2 kinds), (ii) %/°C, and (iii) manual input (5 points).
- OUniversal power source 90 to 264V AC, 50.60 Hz
- OSample temperature displayed
- Conductivity adjustment
 Enable adjustment with a reference meter.
- ○Two contact points
- ORS-232C OUTPUT (optional)

RS 232C makes it possible to transfer data to a computer.



Standard Specifications

Product Name : Panel type electrodeless conductivity

Model Name analyzer
Measurement : MBM-100A

Range : Display; 7 ranges, selectable 0.000 to 2.100 mS/cm

0.00 to 7.00 0.0 to 21.00 0.0 to 70.0

0.0 to 70.0 0.0 to 210.0 0 to 700 0 to 2100 Transmission output;

Freely settable with the range width of

23.8% of the measurement range or

wider.

Temperature display;

-5 to 120°C, 0.1 °C resolution

Display : Digital LCD

Temp. Compensation: -5 to 105°C subject to sensor material

Performances : With equivalent resistance

Linearity; Within +/-0.5%FS

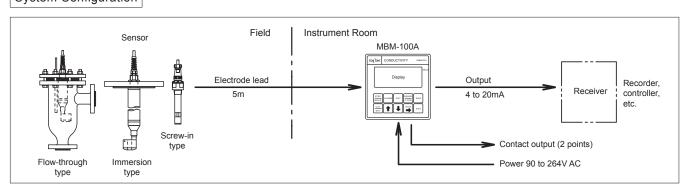
(Within +/-0.8%FS for Range 1)

Repeatability ; Within +/-0.2%FS Temp. compensation ; Within +/-1.5%FS

Transmission Output: Insulation type, 4 to 20 mA DC,

load resistance 650Ω or less

System Configuration



Control Functions : Circuit; 2-circuits C contact

Setting; measured value 0 - FS

Contact capacity; 250V AC, 3A

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

Consumption; approx. 3VA

Ambient Conditions: -10 to 50°C, 90% RH or less

Case Material : Aluminum

Dimensions : 96 (W) x 96 (H) x 90 (D) mm

Panel cut; 92 x 92 mm (DIN)

Weight : 0.5kg

Structure : Panel mount, indoor installation(IP30)

Display and operation : polyester film

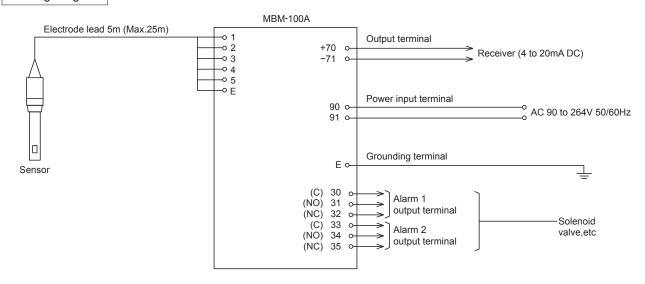
part material

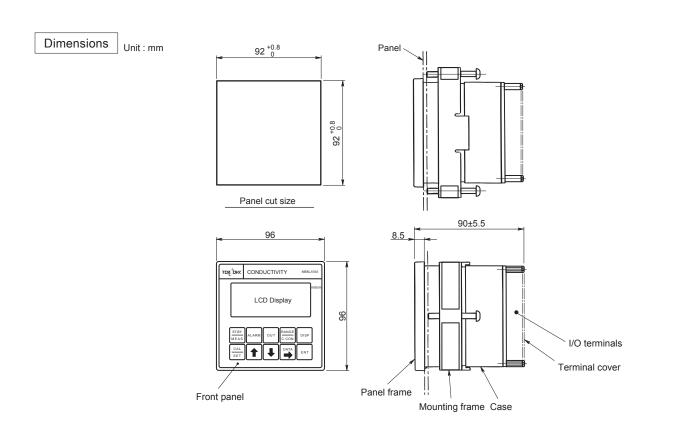
Combined detectors: ME100 series, ME-6/7 series.

The cable length : 5m (standard)

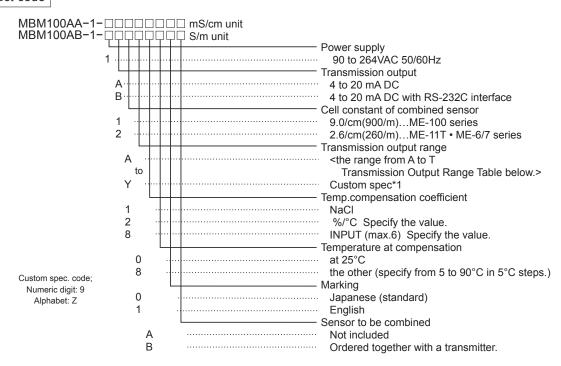
max. 20m if required.

Wireing Diagram





Product code



Transmission Output Range Table

| | MB | M- | 100AA | MBI | Range | | |
|---|-------|------|------------|-------|-------|-------|----------|
| | mS/cm | ı Ur | nit System | mS/cm | | | |
| Α | 0.000 | to | 0.500 | .0000 | to | .0500 | |
| В | 0.000 | to | 1.000 | .0000 | to | .1000 | 1 |
| С | 0.000 | to | 2.000 | .0000 | to | .2000 | |
| D | 0.00 | to | 3.00 | 0.000 | to | 0.300 | |
| Ε | 0.00 | to | 4.00 | 0.000 | to | 0.400 | 2 |
| F | 0.00 | to | 5.00 | 0.000 | to | 0.500 | |
| G | 0.00 | to | 10.00 | 0.000 | to | 1.000 | _ |
| Н | 0.00 | to | 20.00 | 0.000 | to | 2.000 | 3 |
| J | 0.0 | to | 30.0 | 0.00 | to | 3.00 | |
| K | 0.0 | to | 40.0 | 0.00 | to | 4.00 | 4 |
| L | 0.0 | to | 50.0 | 0.00 | to | 5.00 | |
| M | 0.0 | to | 100.0 | 0.00 | to | 10.00 | 5 |
| N | 0.0 | to | 200.0 | 0.00 | to | 20.00 | 5 |
| Р | 0 | to | 300 | 0.0 | to | 30.0 | |
| Q | 0 | to | 400 | 0.0 | to | 40.0 | 6 |
| R | 0 | to | 500 | 0.0 | to | 50.0 | |
| S | 0 | to | 1000 | 0.0 | to | 100.0 | 7 |
| Τ | 0 | to | 2000 | 0.0 | to | 200.0 | ' |
| | | | | | | | |

- *1. You can specify the ranges at 5/21 (23.8%) or larger of each of the 7ranges in "NOTE1: Measurement (Display) Ranges" ex: 0.500 to 1.000mS/cm, 200 to 500mS/cm, 2.00 to 7.00 S/m, etc..
- *2. If sensor is NOT ordered together with a transmitter, please notify model and serial number of existing sensor.

Note1. Measurement (display) ranges from 1 to 7

| Range | mS/cm U | Jnit S | System at 25°C | S/m Unit | Sys | stem at 25°C |
|-------|---------|--------|----------------|----------|-----|--------------|
| 1 | 0.000 | to | 2.100 | .0000 | to | .2100 |
| 2 | 0.00 | to | 7.00 | 0.000 | to | 0.700 |
| 3 | 0.00 | to | 21.00 | 0.000 | to | 2.100 |
| 4 | 0.0 | to | 70.0 | 0.00 | to | 7.00 |
| 5 | 0.0 | to | 210.0 | 0.00 | to | 21.00 |
| 6 | 0 | to | 700 | 0.0 | to | 70.0 |
| 7 | 0 | to | 2100 | 0.0 | to | 210.0 |

Note2. Compensated temperature range is -5 to 105°C. (When the detector is made of PVC, the range is -5 to 60°C.)

All sensors to be combined

2types of sensors below are usable for MBM-100A type. ME-100 series (compact and lightweight type, cell constant: 9.0/cm) ME-6/7 series (high sensitivity type, cell constant: 2.6/cm) Please refer to separate electrode part specification for more detailed information.

| | | E-100 series er proof connection) | High sensitivity type ME-6/7series (cable integrated type) | | |
|---|-------|--|--|--|--|
| type | Shape | Specifications | Shape | Specifications | |
| In-line type (screw-in type) | | Model : ME-112□ Wetted part material : One of the followings C-PVC, PVDF and PFA Connection screw : R3/4 Insertion length : 123mm | | Model : ME-11T Wetted part material : PFA Connection screw : G3/4 Insertion length : 84mm Cable length : 5m | |
| Piping / tank flange insertion type | | Model: ME-122□ Wetted part material: One of the followings C-PVC, PVDF and PFA Connection flange standard: 50A JIS10K FF Flange lower length: 96 to 2000mm | | Model: ME-72T Wetted part material: PFA Connection flange standard: 100A JIS10K RF Flange lower length: 500 to 2000mm Cable length: 5m | |
| piping-connected flow liquid type (with case) | | Model: ME-142H Wetted part material: C-PVC Case flange standard: 15A JIS10K AA | | Model: ME-62 Wetted part material: PFA Case flange standard: 25A JIS10K RF Cable length: 5m | |
| Throw-in type | | Model : ME-111H (cable is directly connected) Wetted part material : C-PVC Diameter : Φ30 Cable length : 5 to 10m | | Model : ME-11T Wetted part material : PFA/PVC Weight : approx. 1kg Diameter : Φ60 Cable length : 5 to 20m | |





Please read the operation manual carefully before using producuts.

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