



Datasheet

Conductivity meter

AI-MD-EC



Datasheet

Conductivity meter

AI-MD-EC

This conductivity meter is an intelligent online chemical analysis instrument, which is widely used in thermal power, chemical fertilizer, metallurgy, environmental protection, pharmaceutical, biochemical, food and tap water and other industries. The conductivity meter mainly continuously monitors the conductivity/total dissolved solids/resistivity and temperature in the solution. The continuous monitoring data is connected to the recorder through the transmission output to realize remote monitoring and recording. It can also be connected to the RS485 interface to communicate with the computer through the Modbus-RTU protocol, so as to realize the monitoring and recording of the instrument by the computer.

Applications

- Wastewater
- Thermal power
- Chemical fertilizer
- Metallurgy
- Environmental protection
- Pharmaceutical
- Biochemical



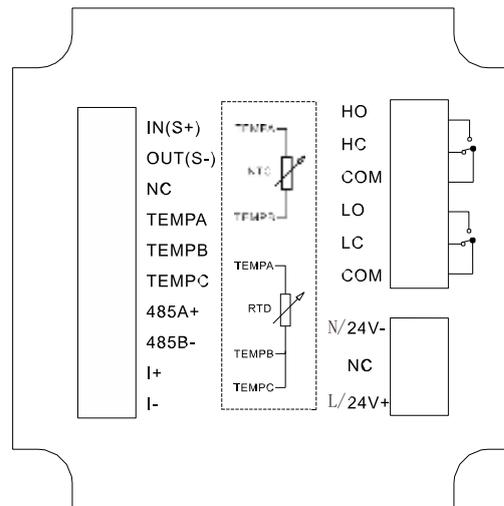
Conductivity meter

Features

- Photoelectric isolation (4~20) mA transmission output, strong anti-interference ability.
- Photoelectric isolation RS485 communication
- With configuration temperature manual and automatic compensation function.
- High and low alarm function and hysteresis can be set.
- The buzzer and LCD backlight can be switched on and off.

Parameters	
Measured variables	EC / TDS / ER
Measuring range	Measuring range of the controller (not recommended for use in pure water below 1 μ S/cm) 0.01 electrode: (0 ~ 20.00) μ S/cm or (0.05 ~ 20.00) M Ω cm 0.1 electrode: (0.20 ~ 200.0) μ S/cm 1.0 electrode: (2.00 ~ 2000) μ S/cm, up to 20000 μ S/cm 10.0 electrode: (0.02 ~ 20.00)mS/cm Temperature measurement range: (-10 ~ 130) $^{\circ}$ C
Transmitter output	Isolated, (4 ~ 20) mA can be set to correspond to EC/TDS/ER measurement range, maximum load 750 Ω , accuracy \pm 0.2%FS
Communication output	Isolated, RS485 output, Modbus-RTU communication protocol
Alarm output	2-way SPDT, normally open and normally closed, contact capacity 250VAC, 3A
Power supply	AC: 220V \pm 10%, 50Hz/60Hz DC: 24V \pm 10%
Power consumption	5W(max)
Electrical interface	M12*1.5 cable plug*1, M16*1.5 cable plug*2
Working temperature	25 $^{\circ}$ C
Accuracy	2.0%
Temperature compensation	NTC10K/Pt1000 automatic / manual
Error	EC/TDS/ER: \pm 1%FS NTC10K: \pm 0.3 $^{\circ}$ C Pt1000 : \pm 0.3 $^{\circ}$ C
Working environment	Temperature: (0 ~ 60) $^{\circ}$ C Relative humidity: 10%~85% (no condensation)
Storage environment	Temperature: (-15~65) $^{\circ}$ C Relative humidity: 5%~95% (no condensation)

Wiring



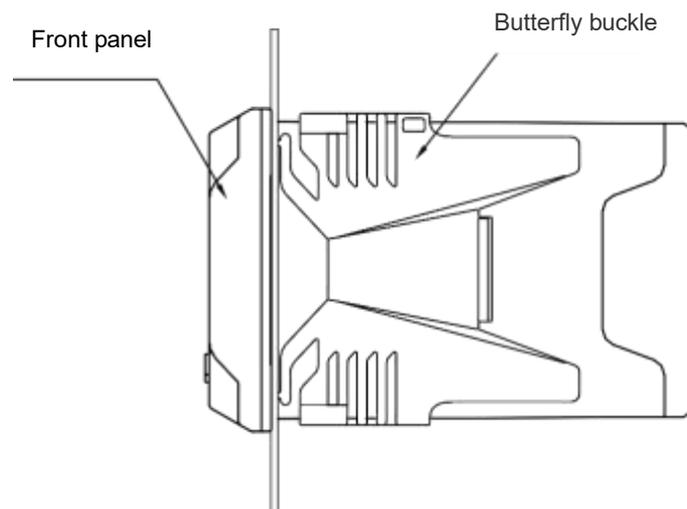
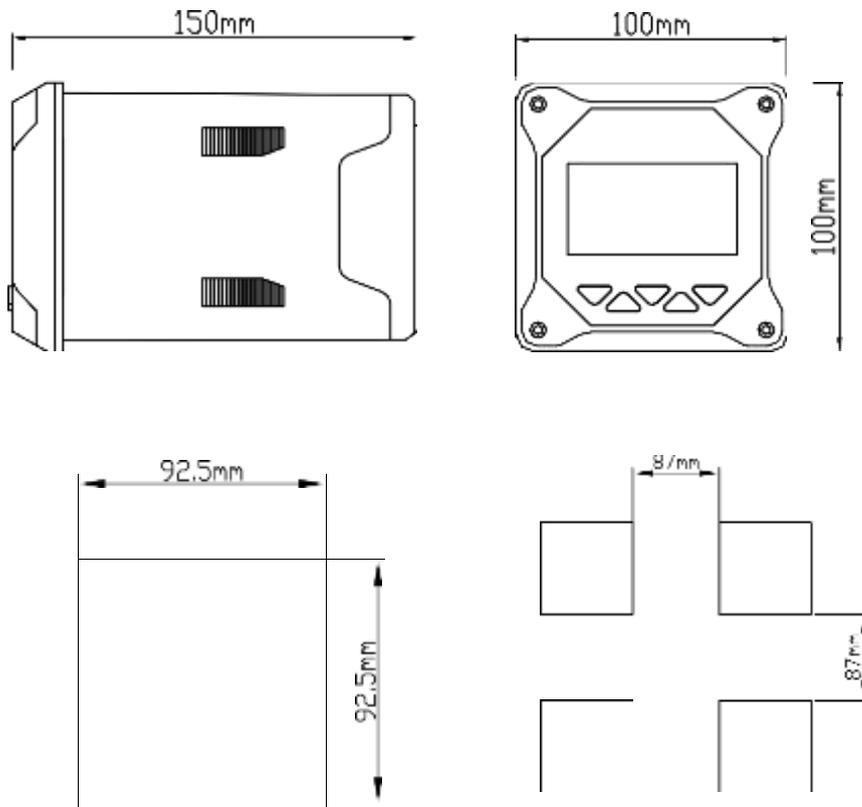
- IN (S+): conductivity electrode IN (S+)
- OUT (S-): Conductivity electrode OUT (S-)
- NC: undefined
- TEMP A: temperature compensation terminal A, NTC10K or Pt1000 A
- TEMP B: temperature compensation terminal B, NTC10K or Pt1000 B
- TEMP C: temperature compensation terminal C, the temperature ground of the Pt1000 three-wire system, the Pt1000 two-wire system needs to be short-circuited with terminal B, and this port is suspended for NTC10K
- 485A+: RS485 communication interface A+
- 485B-: RS485 communication interface B-
- I+: (4 ~ 20) mA output +
- I-: (4 ~ 20)mA output terminal-
- HO: High alarm normally open relay
- HC: High alarm normally closed relay
- COM: high report public port
- LO: Low alarm normally open relay
- LC: Low alarm normally closed relay
- COM: Underreport the common port
- N: 220VAC neutral terminal
- NC: undefined
- L: 220VAC live wire terminal
- 24V+: 24VDC positive pole
- 24V-: 24VDC negative pole

(1) To prevent electric shock, please confirm that the meter is not powered on before connecting the signal line.

(2) To prevent fire, please use double insulated wire.

(3) In order to avoid malfunction, please do not put live products close to the signal terminals.

Dimensions



Ordering Code

AI-MD-EC-B-4-1-E-1														Description	
AI-MD-EC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4-20mA+RS485
Output	B														2 way SPDT
Alarm output	4														M16×1.5 Cable Plug×2+M12×1.5 Cable Plug
Electrical interface	1														220VAC (100~240VAC)
Power supply				E											24VDC
				C											304SS backplane mounting bracket
Accessories														1	



Arka Instruments LLP

Add: Hyderabad Office: H.no: 08-041/1,
 Plot no 132, N C L Enclave, Kompally,
 Hyderabad, Telangana, India - 500067
 Land Line: +91 40359 00418
 Mobile: +91 81438 12346
 Email: admin@arkainstruments.com
 Website: www.arkainstruments.com