



Recorder



Flow



Pressure



Temp



Analyzer



Level

Datasheet

pH/ORP controller

MDA-PH

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## pH/ORP controller

### MDA-PH

This product is an instrument independently developed by our company for online monitoring of pH/ORP value. Widely used in thermal power, chemical fertilizer, metallurgy, environmental protection, pharmaceutical, biochemical, food and tap water industries to continuously monitor the pH value or ORP value 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 fertilizers,
- Metallurgy,
- Environmental protection,
- Pharmaceuticals,
- Biochemistry,
- Food and tap water

#### Features

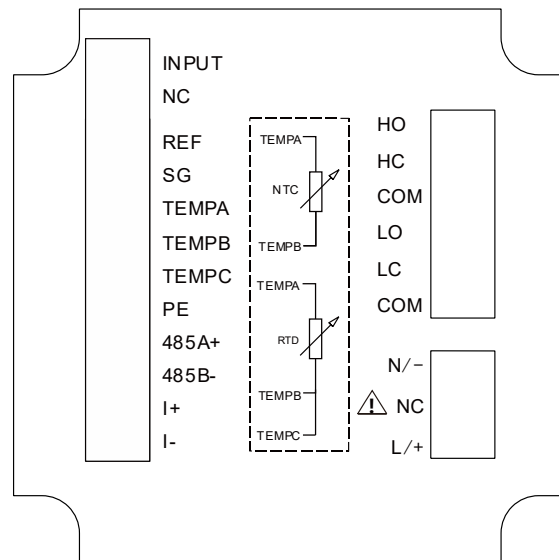
- Modular circuit design.
- Isolation and transmission output
- Strong anti-interference ability
- Isolate RS485 communication
- Support temperature manual/automatic compensation
- High and low alarm and hysteresis can be set
- Buzzer, LCD backlight switchable



**pH/ORP controller**

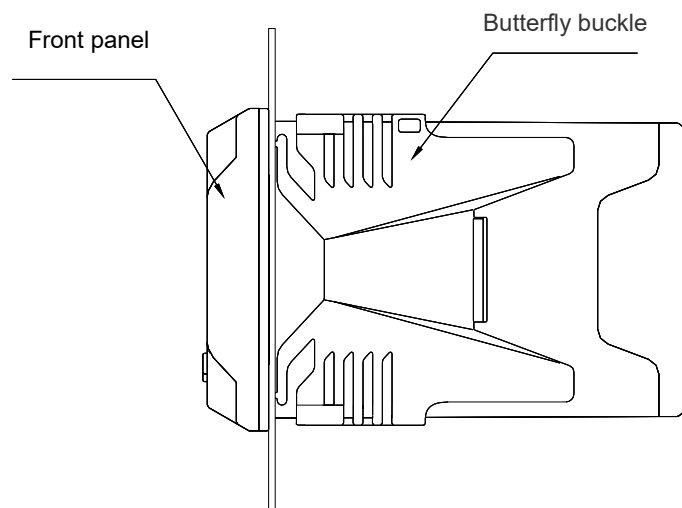
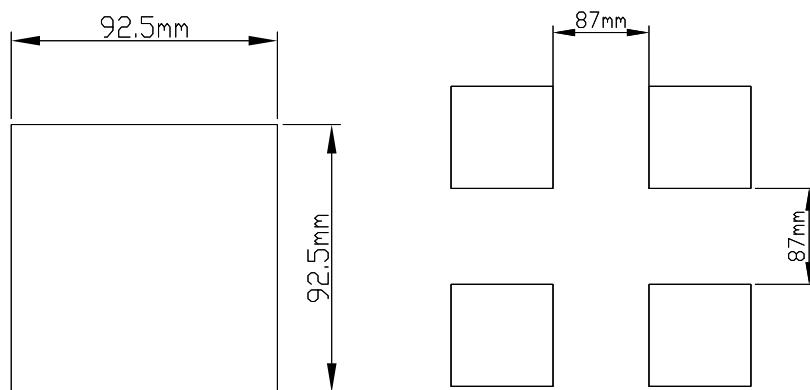
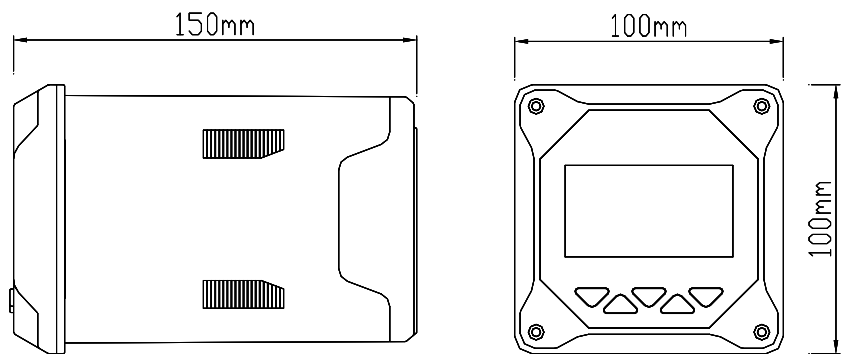
Parameters	
Measured variables	pH, ORP
Measuring range	pH: (0.00 ~ 14.00) pH ORP: (-2000 ~ 2000) mV
Input impedance	$\geq 10^{12}\Omega$
Transmitter output	Isolated, (4~20)mA can be set corresponding to pH/ORP measurement range, maximum load 750 $\Omega$ , output accuracy $\pm 0.2\%$ FS
Communication	isolated, RS485 output, Modbus-RTU communication protocol
Alarm output	2 relay dry contacts, contact capacity 250VAC, 3A
Power supply	AC: 220V $\pm 10\%$ , 50Hz/60Hz, 110V $\pm 10\%$ DC: 24V $\pm 10\%$
Power	$\geq 6W$
Resolution	pH: 0.01pH ORP: 1mV
Accuracy	pH: $\pm 0.02$ pH ORP: (-2000 ~ -1000)mV, $\pm 2$ mV (-1000 ~ 1000)mV, $\pm 1$ mV (1000 ~ 2000)mV, $\pm 2$ mV
Repeatability	0.02pH
Temperature compensation	NTC10K: (-10~60) $^{\circ}C$ accuracy $\pm 0.3^{\circ}C$ (60~130) $^{\circ}C$ accuracy $\pm 2^{\circ}C$ Pt1000: Accuracy $\pm 0.3^{\circ}C$ Pt100 (customized): accuracy $\pm 0.3^{\circ}C$ Range: (-10~130) $^{\circ}C$ manual/automatic
Display	2.8-inch monochrome LCD display, resolution 128*64
Working environment temperature	(0 ~ 60) $^{\circ}C$
Relative humidity	10%~85% (no condensation)
Ingress protection	IP5X
Storage environment temperature	(-15~65) $^{\circ}C$
Relative humidity	5%~95% (no condensation)
Altitude	<2000m

Wiring



- INPUT: electrode input terminal
- NC: undefined
- REF: electrode reference junction
- SG: electrode ground terminal
- TEMP A: temperature compensation terminal A
- TEMP B: temperature compensation terminal B
- TEMP C: temperature compensation terminal C, Pt1000, Pt100 (customized) three-wire temperature ground, connected to Pt1000, Pt100 (customized) two-wire system needs to be shorted to B, when connected to NTC10K, C terminal is suspended
- PE: instrument ground terminal
- 485A+: RS485 communication interface A+
- 485B-: RS485 communication interface B-
- I+: (4~20)mA output terminal+
- I-: (4~20) mA output terminal-
- 220V N/110V N/24V-: 220VAC power terminal/110VAC power terminal/24VDC power terminal negative
- 220V L/110V L/24V+: 220VAC power terminal/110VAC/power terminal 24VDC power terminal positive
- COM: contact common terminal
- LC: low alarm normally closed contact terminal
- LO: low alarm normally open contact terminal
- COM: contact common terminal
- HC: high alarm normally closed contact terminal
- HO: high alarm normally open contact terminal

Dimension



**Ordering code**

MDA-PH-B-4-1-E-1														Description	
MDA-PH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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
Accessories				C										1	304SS backplane mounting bracket