

## PCTD01 Turbidity/TSS/MLSS Controller



This Turbidity/TSS/MLSS controller is a smart online chemical analyzer, widely used in Thermal power, chemical fertilizer, metallurgy, environmental protection, pharmaceutical, biochemical, food, tap water and other industries. The Turbidity/ TSS/MLSS sensor is based on the combined infrared absorption and scattering light method, and the ISO7027 method can be used to accurately determine the turbidity, TSS and MLSS.

### **Caution**

Some inner parts may carry high voltage.

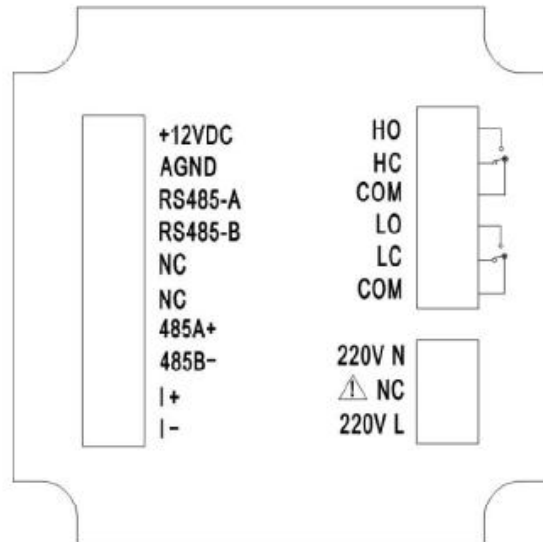
Do not open the square panel in the front except our company personnel or maintenance personnel acknowledged by our company, Cut off electric powers before making any checks, to avoid electric shock.

## Technical indicators of the turbidity controller

Display	2.8-inch
Diemension	Overall dimension: 100mm * 100mm * 150mm Cutout dimension: 92.5mm*92.5mm
Weight	0..65KG
Material	Body: SUS316L + PVC, Ti alloy (For seawater)
	O-ring: Fluorine rubber
	Cable: PVC
Ingress protection	IP68/NEMA6P
Measuring variable	Turbidity/TSS/MLSS
Measuring range	Turbidity: 0.00 ~ 4000NTU TSS/MLSS: 0.1 ~ 20000 mg/L、 0.1 ~ 45000 mg/L 、 0.1~ 120000 mg/L
Accuracy	Turbidity: <math>\pm 2\%</math> FS or $\pm 0.1</math>NTU (max value)MLSS/TSS : <math>\pm 5\%</math> FS ( depending on the sludge homogeneity )$
output	4~20mA output
The maximum loop	750 $\Omega$ , $\pm 0.2\%$ FS
Communication protocol	MODBUS-RTU RS485
Alarm relay	Pickup/Breakaway AC250V/3A
Relative humidity	( 10 ~ 85 ) %RH (no condensation )
Operating temperature	0 ~ 50 $^{\circ}$ C
Power supply	AC220V $\pm 10\%$ , 5W Max, 50Hz/60Hz
Storage conditions	Temperature (-15 ~ 65 $^{\circ}$ C ) Humidity ( 5 ~ 95 ) %RH (no condensation ) Altitude: <math>< 2000</math>m
Protection	IP54

## Technical indicators of the turbidity sensor

Display	2.8-inch
Diemension	60mm*256mm (D*L)
Weight	1..65KG
Material	Body: SUS316L + PVC, Ti alloy (For seawater)
	O-ring: Fluorine rubber
	Cable: PVC
Ingress protection	IP68/NEMA6P
Measuring range	Turbidity: 0.00 ~ 4000NTU MLSS/TSS : 0.1 ~ 20000 mg/L, 0.1 ~ 45000 mg/L, 0.1 ~ 120000 mg/L
Accuracy	Turbidity: Less than $\pm 2\%$ of the measured value or $\pm 0.1$ NTU, whichever is larger MLSS/TSS: less than $\pm 5\%$ of the measured value (depending on the homogeneity of the MLSS/TSS)
Flow rate	$\leq 2.5$ m/s, 8.2ft/s
Pressure range	$\leq 0.4$ Mpa
Operating temperature	0 ~ 40°C
Storage conditions	Temperature (-15 ~ 65°C) Humidity (5 ~ 95) %RH (no condensation) Altitude: <2000m
Calibration	Buffer solution calibration, Slope calibration
Cable length	10m standard cable, can be extended up to 100m



- +12VDC: Turbidity / TSS/ MLSS electrode power supply +
- AGND: Turbidity / TSS/ MLSS electrode power supply -
- RS485-A: Turbidity / TSS/ MLSS electrode communication +
- RS485-B: Turbidity / TSS/ MLSS electrode communication -
- NC: Unidentified
- NC: Unidentified

- 485A+: RS485 communication interface A +
- 485B-: RS485 communication interface B -
- I+: 4-20mA output +
- I-: 4-20mA output -
- HO: High alarm normally open
- HC: High alarm normally closed
- COM: Common terminal
- LO: Low alarm normally open relay
- LC: Low alarm normally close relay
- COM: Common terminal
- 220V L: AC220V live wire
- NC: Unidentified
- 220V N: AC220V neutral wire

#### Note

●Confirm that the controller is not powered on before connected with signal wire, to avoid electric shock.

●Use double insulation wire to prevent fire accident.

●Do not put electric product close to signal terminal, which may cause failure.

●+12VDC and AGND is power output terminal, please don't short the circuit during wiring, to avoid any damage to the controller.

## System menu

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Turbidity Monitoring screen



Figure 7

MLSS/TSS Monitoring screen




Figure 8





## Definition of buttons

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Figure 6

Sign	Button	Function description
	EXIT	Check related warning status on the “monitoring page” Return to previous level page in the up& down level page linked to “menu page”

	RIGHT	Make a recurrent selection of digit of parameters Check the display values of other unit on the “monitoring page”
	MENU	Enter the MENU on the “monitoring page” Exit the MENU on the “menu page”
	DOWN	Select the related menu on the “menu page” Modify the values in the configuration state
	ENTER	Enter the sub-menu or confirm modification on the “menu Page”

Contact us

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