Recorder　Flow　Pressure　Temp　Analyzer　Level

Datasheet

Turbidity/Sludge Concentration Meter

SUP-PTU/PSS100

Supmea®

Turbidity/Sludge Concentration Meter
SUP-PTU/PSS100

The principle of the turbidity/sludge concentration sensor is based on the combined infrared absorption and scattered light method, and the ISO7027 method can be applied to continuously and accurately measure the turbidity or sludge concentration.

This turbidity/sludge concentration meter is an intelligent online chemical analysis instrument, which is widely used in various industries such as thermal power, chemical fertilizer, metallurgy, environmental protection, pharmaceutical, biochemical, food and tap water.

Applications

- Thermal power,
- Chemical fertilizer
- Metallurgy
- Environmental protection
- Pharmaceutical
- Food Industry
- Water industry

Features

- Based on ISO7027, infrared double scattering light technology will not be affected by chroma for the measurement of cuspended colids and cludge concentration value.

- According to the usage environment, self-cleaning function can be equipped with.

- With the built-in self-diagnosis function, it can make sure the accurate data be delivered.

- The installation and calibration is quite simple.

SUP-PTU/PSS100

Turbidity PTU-8011 sensor main parameters

Size	Diameter 60mm*Length 256mm
Weight	1.65kg
Material	Body: SUS316L/Titanium/PVC
	Upper and lower cover: POM
	Cable: PUR
Waterproof level	IP68/NEMA6P
Measuring range	Turbidity: (0.01 ~ 4000) NTU
Measurement accuracy	Turbidity: less than ±2% of the measured value, or ±0.1NTU, whichever is the maximum
Flow rate	≤2.5m/s、8.2ft/s
Pressure range	≤0.4MPa
Measuring ambient temperature	(0 ~ 45)℃ (no freezing)
Cable length	10m standard integral cable, can be extended up to 100m

Turbidity PTU-8010 sensor main parameters

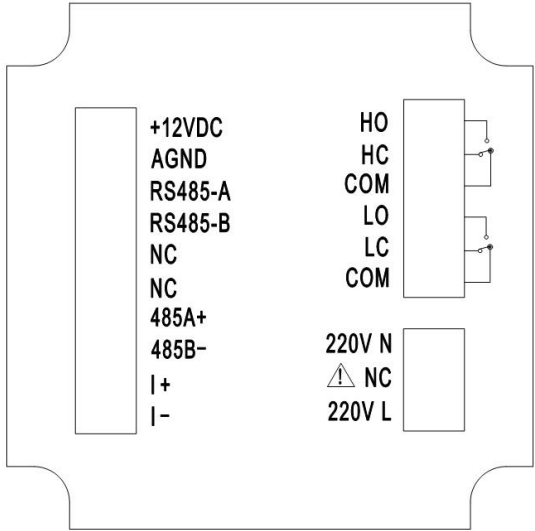|	
Size	Diameter 49mm*Length 230.5mm
Weight	0.8kg
Material	Body: SUS316L
	Upper and lower cover: PPS+glass fiber
	Cable: PUR
Waterproof level	IP68/NEMA6P
Measuring range	Turbidity: (0.01 ~ 3000) NTU
Measurement accuracy	Turbidity: less than ±5% of the measured value, or ±0.5NTU, whichever is the maximum
Pressure range	≤0.2MPa
Measuring ambient temperature	(0 ~ 45)℃ (no freezing)
Cable length	10m standard integral cable, can be extended up to 100m

Sludge concentration PSS-9011 sensor main parameters

Size	Diameter 60mm*Length 256mm
Weight	1.65kg
Material	Body: SUS316L/Titanium/PVC
	Upper and lower cover: PPS+glass fiber
	Cable: PUR
Waterproof level	IP68/NEMA6P
Measuring range	Sludge concentration: (0.01 ~ 20000) mg/L, (0.01 ~ 45000) mg/L , (0.01 ~ 120000) mg/L
Measurement accuracy	Sludge concentration: less than ±5% of the measured value (depending on sludge homogeneity)
Flow rate	≤2.5m/s、8.2ft/s
Pressure range	≤0.4MPa
Measuring ambient temperature	(0 ~ 45)℃ (no freezing)
Calibration	Sample calibration;Slope calibration
Cable length	10m standard integral cable, can be extended up to 100m

Turbidity/Sludge concentration meter main parameters

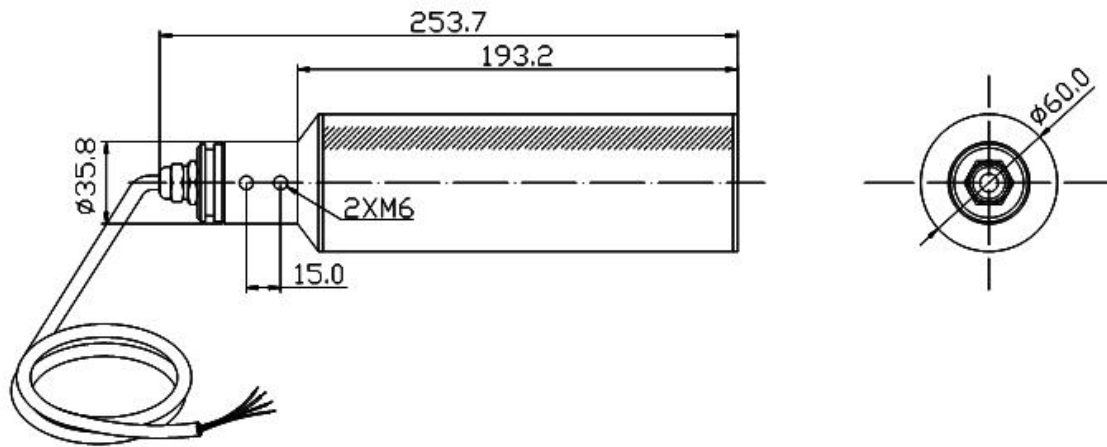|	
Display	2.8-inch monochrome LCD screen, resolution 128*64
Size	Dimensions: 100mm * 100mm * 150mm
	Hole size: 92.5mm*92.5mm
Mounting Panel Thickness	1.5mm ~13mm
Weight	0.65kg
Measure variable	Turbidity/Sludge Concentration
Current output	Isolation type, (4～20)mA can be set corresponding to turbidity /sludge concentration measurement range, maximum load 500Ω, output accuracy 0.2%FS.
RS485 digital signal output	Isolated, MODBUS-RTU communication protocol
Contact output	2 repays independent programmable normally open/normally closed contacts, contact capacity 250VAC/3A
Relative humidity	(10 ~ 85)%RH (no condensation)
Working temperature	(0 ~ 50)℃
Transportation and storage conditions	Temperature(-15 ~ 65)℃
	Relative humidity (5 ~ 95)%RH (no condensation)
	Altitude: <2000m

Wiring

Port definition

- ■ +12VDC: Turbidity/Sludge Concentration Electrode Power Positive
- ■ AGND: Negative power supply for turbidity/sludge concentration electrode
- ■ RS485-A: Turbidity/Sludge Concentration Electrode Communication Positive
- ■ RS485-B: Negative communication of turbidity/sludge concentration electrode
- ■ NC: Empty
- ■ NC: Empty
- ■ 485A+: RS485 communication output terminal A+
- ■ 485B-: RS485 communication output terminal B-
- ■ I+: (4～20)mA output terminal+
- ■ I-: (4～20)mA output terminal-
- ■ HO: High alarm normally open relay
- ■ HC: High alarm normally closed relay
- ■ COM: Common
- ■ LO: low alarm normally open relay
- ■ LC: Low Alarm Normally Closed Relay
- ■ COM: Common
- ■ 220V N: 220VAC neutral
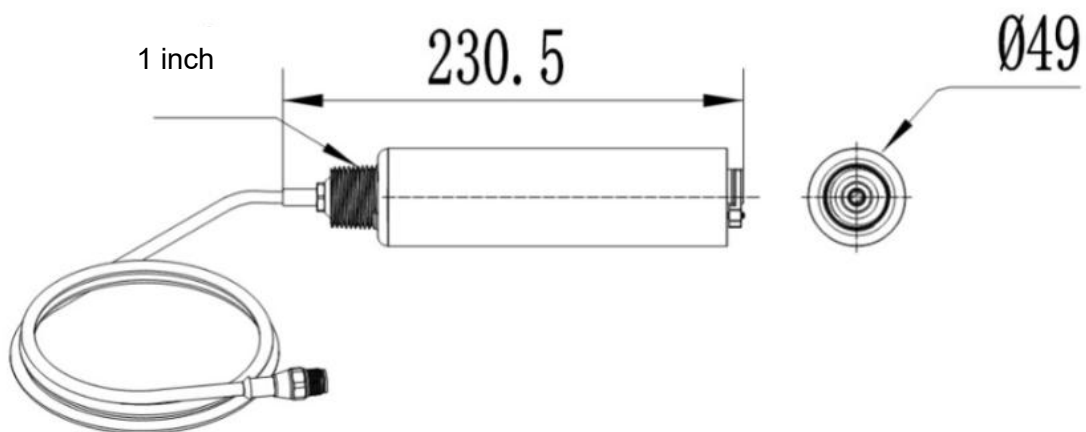- ■ NC: Empty
- ■ 220V L: 220VAC live wire

Note:

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

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

3.Please do not place live products close to the signal terminals, which may cause malfunction.

4.+12VDC and AGND are the power output terminals, please note that they cannot be short-circuited when wiring, so as not to damage the instrument.
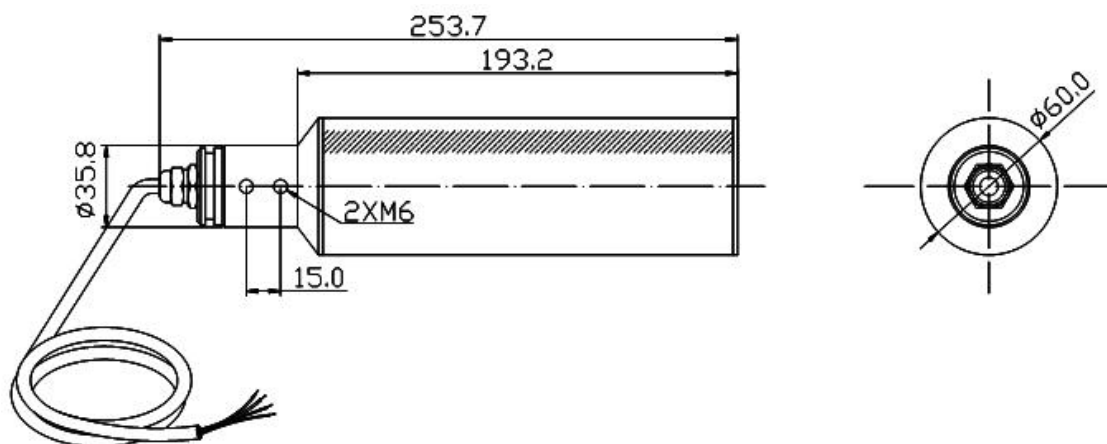
Dimension
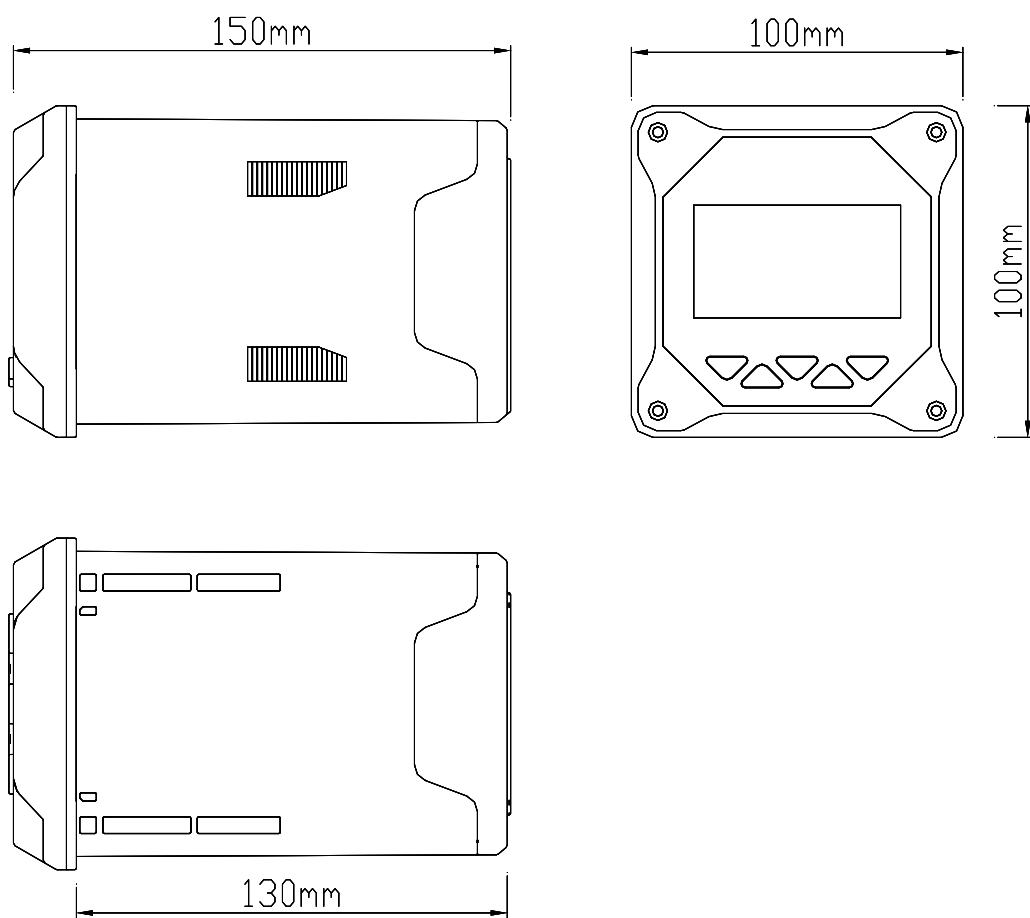
■ Turbidity PTU-8011 Sensor Dimensions

■ Turbidity PTU-8010 Sensor Dimensions

■ Sludge Concentration PSS-9011 Sensor Dimensions

■ Turbidity meter PTU/PSS100 Dimensions

150mm

100mm

100mm

130mm

Display

Definition of buttons

Sign	Button name	Key function
ESC	EXIT	Under "Monitoring interface" - Alarm view Under "Menu interface" - Return to the previous interface
▶	RIGHT	Make a recurrent selection of digit of parameters modify the original indication value
MENU	MENU	Under "Monitoring interface" - Enter the MENU Under "Menu interface" - Exit the MENU
▼	DOWN	Under "menu interface" - Select the related menu Modify the values in the configuration state
ENT	ENTER	Under "Menu interface" - Enter the sub-menu or confirm modification

Applications

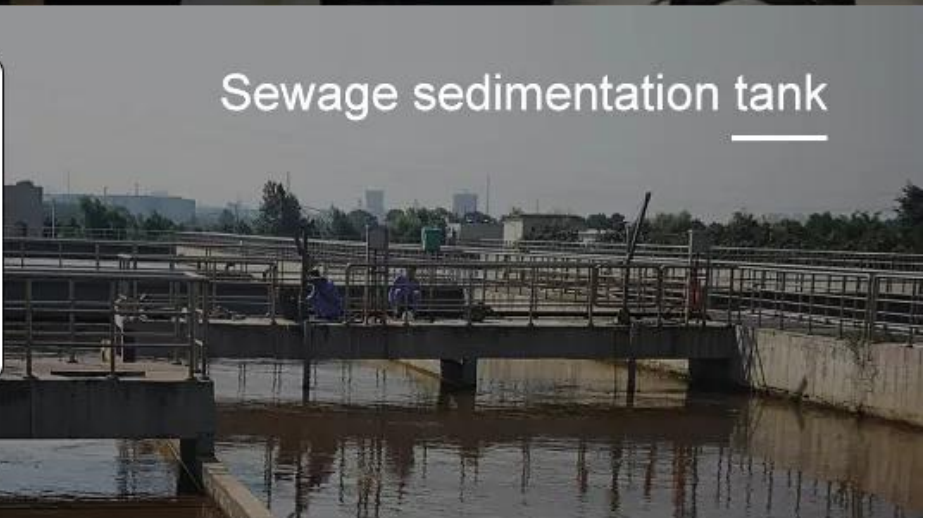Filtered water in waterworks

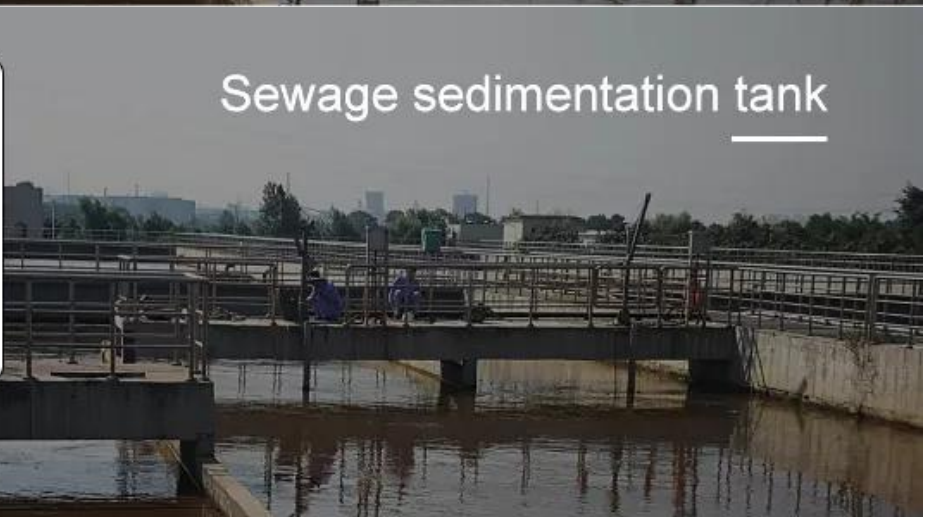Low turbidity meter

Sewage sedimentation tank

MLSS meter

Sewage sedimentation tank

MLSS meter

Supmea®

Ordering code

SUP-PTU/PSS100-O1-D1-A2-V1												Description
SUP-PTU/PSS100	-	-	-	-	-	-	-	-	-	-	-	
Transmit output	O1											（4-20）mA
Communication		D1										RS485
Relay output			A2									2 relay
Power supply				V1								220VAC（198VAC-242VAC）