

Low Range Turbidity Analyzer

TC-7320-RS & TD-200 Series Intelligence Advanced, RS-485

The TC-7320-RS and TD-200 series is designed for measuring lower range turbidity in clean water. The well-designed, accurate system provides resolution capability up to 0.0001 NTU. There are EPA compliant traditional tungsten lamp sensor and long-life white LED sensor models for choice. The transmitter can connect with up to two turbidity sensors and provides all analog & digital outputs and relay controls under a great user-experience operation interface.



Product Specifications

Measurement Parameter	: Turbidity
Measurement Principle	: TD-200: Tungsten lamp; TD-201: White LED
Measurement Range	: 0.0000~200.00NTU
Resolution	: 0.0001NTU, 0.001NTU, 0.01NTU (Depends on measured range or resolution setting)
Accuracy	: $\pm 2\%$ or $\pm 0.02\text{NTU}$ (0 to 40NTU) $\pm 5\%$ (40 to 200NTU)
Measurement unit	: NTU, FTU, FNU
Flow rate range	: 250~ 750 ml/minute
Display	: LCM (graphic menu display) with auto/manual illumination function, available for Text mode, Trace mode, and Chart mode
Text Mode	: Digit text Turbidity reading
Trace Mode	: Set up from 3 minutes to 4 weeks duration of the Turbidity value trend graph to master the process history as well as the display of real-time Turbidity reading at the bottom.
Chart Mode	: 3 minutes real-time dynamic Turbidity measurement graph to monitor recent development in control as well as the display of real-time Turbidity reading at the bottom.
Output Signal	: Two isolated DC 0/4~20 mA corresponding to Turbidity of each sensor, max. load 500 Ω
Relay Contact	: Four individual relays corresponding Turbidity value, Hi/Lo selectable, limited programmable, 240 VAC, 0.5A max. (recommended) Dual channel mode: 1st & 2nd relays for channel 1; 3rd & 4th relays for channel 2. The 2nd and 4th relays can be designated for wash timer relay contact: On: 0~99min., 59sec, Off: 0~999hr 59mins.

Power Supply	:	100 ~ 240 VAC \pm 10%, 50~60 Hz
Power Consumption	:	TC-7320-RS: 6W Max. TD-200: 16W Max. TD-201: 6W Max.
Installation	:	Transmitter: Wall or Pipe or Panel mounting Sensor: Wall mounting
Ambient Temperature	:	0 ~ 50°C
Storage Temperature	:	-20 ~ 70°C
Dimensions	:	Transmitter: 144 mm \times 144 mm \times 115 mm (H \times W \times D) Sensor: 296.1mm x 306mm x 184.1mm (H \times W \times D)
Cut off dimensions	:	For transmitter: 138 mm x 138 mm (H x W)
Weight	:	TC-7320-RS: 0.8 kg TD-200: 1.5 kg TD-201: 1.25 kg
Protection	:	Transmitter: IP 65 (NEMA 4X)
Max. cable length	:	Up to 1500m

Principle & Advantage

- The tungsten lamp sensor model, TD-200, compliant with EPA regulations
 - The long-life white LED sensor model, TD-201, requires almost no light source replacement
 - Both models ensure that the measurement is not disturbed by water mist
 - Built-in sophisticated bubble removal device ensures reliable measurement
 - Easy operation, dual channel, analog and Modbus output transmitter
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Calibration Method

- Dark current calibration:
Deducting voltage signal at no light source condition to provide more accurate low-range measurement performance.
 - Up to 5 points known solution calibration or Optical dry standard module calibration:
For building both an accurate and wide range measurement curve.
Optical dry standard modules are optional. They provide the accurate calibration with ease of use, lowering maintenance loading & consumables, and thus saving operation cost.
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Low Range Turbidity Sensor Standard Components:

- Sensor set(Including detector, flow chamber and bubble trap)
 - Power cord
 - Signal cable
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Applications:

- Drinking water
 - Raw water of beverage industry
 - Boiler water
 - Membrane fouling monitoring
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Order Information

Order Number	Description
TC-7320-RS	Low Range Turbidity Transmitter
8-TD200	Low Range Tungsten Lamp Turbidity Sensor
8-TD201	Low Range White LED Turbidity Sensor

Optional Component

Order Number	Description
8-TD200-CAL-1	1 NTU Optical calibration module for TD-200
8-TD200-CAL-20	20 NTU Optical calibration module for TD-200
8-TD201-CAL-1	1 NTU Optical calibration module for TD-201
8-TD201-CAL-20	20 NTU Optical calibration module for TD-201
8-TD200-CAL-TUB	Calibration barrel



Dual Channel Function
One transmitter with two TD-200
or with two TD-201



Calibration barrel--Front

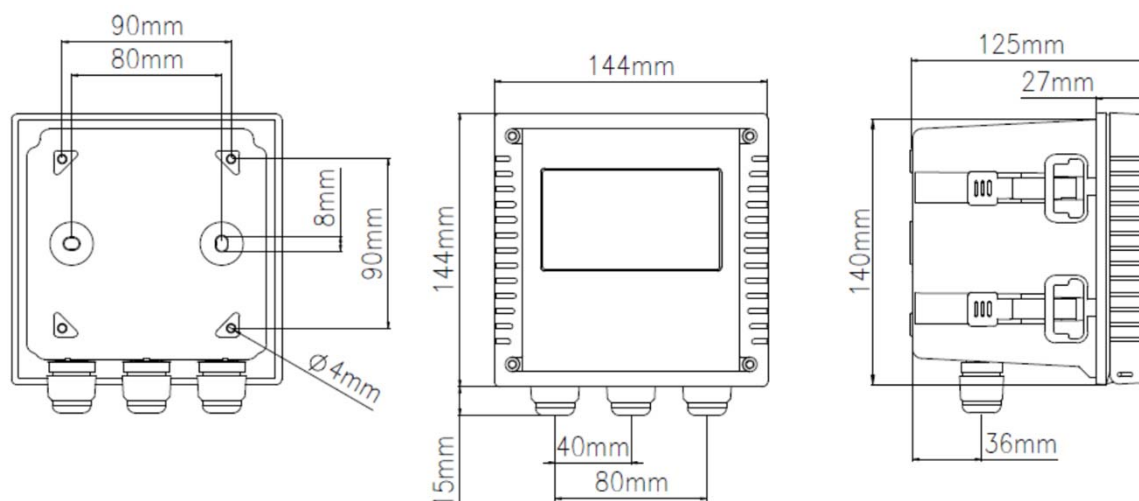


Calibration barrel—Side

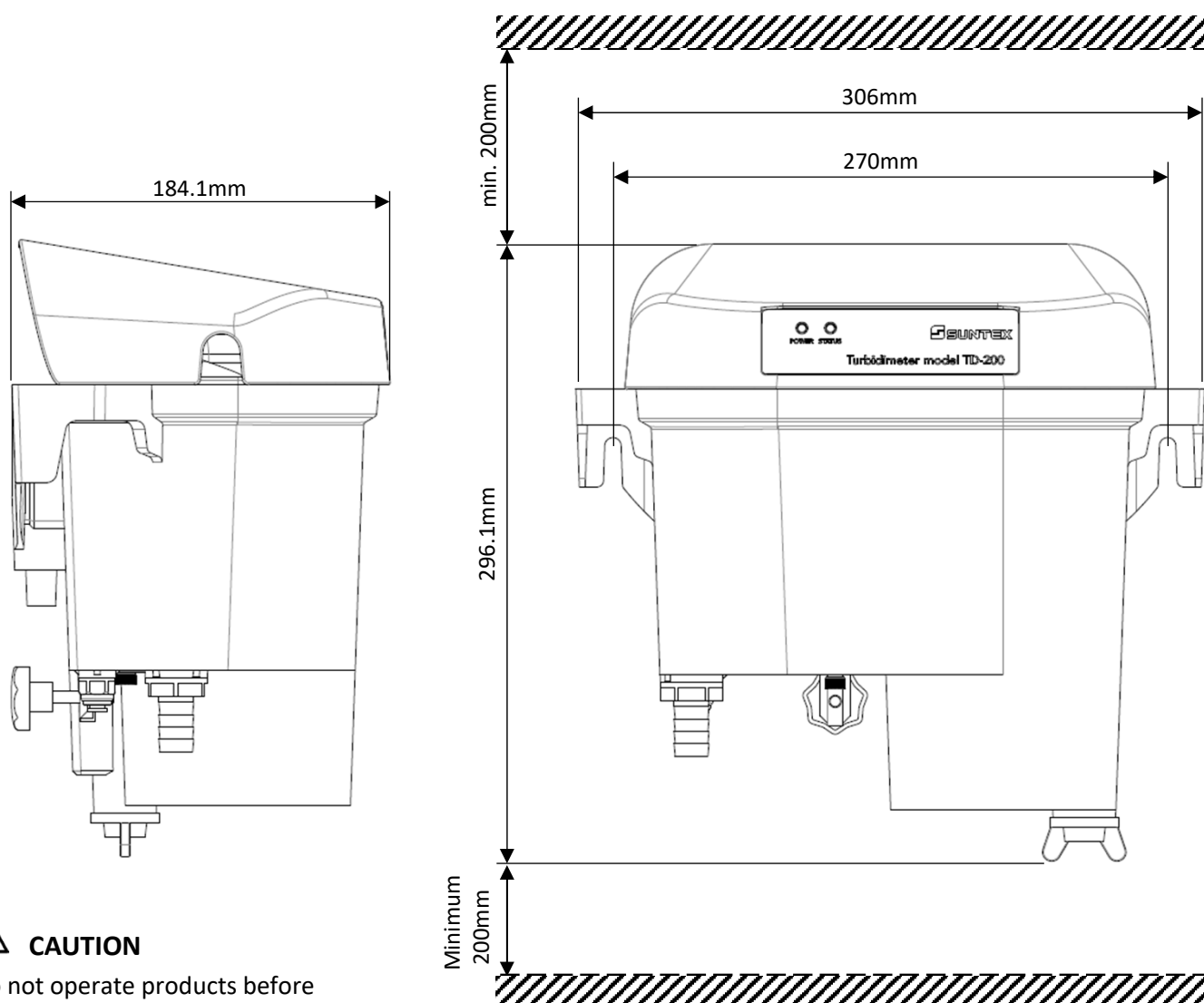


Optical calibration module

Transmitter dimensions:



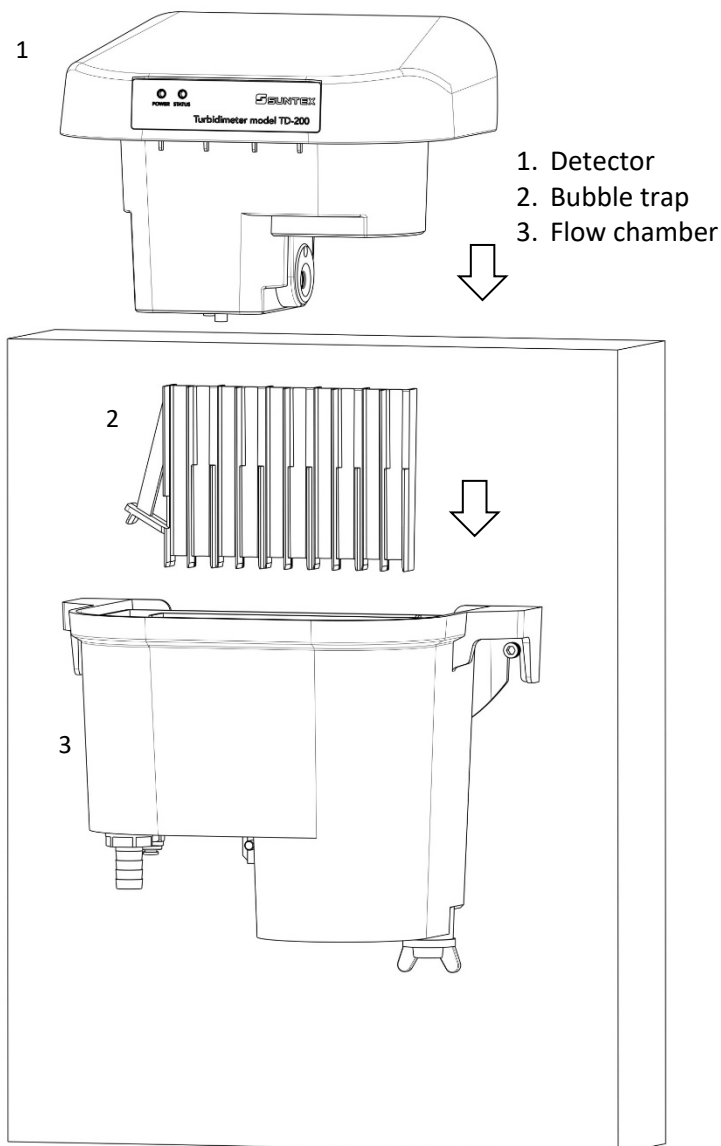
Sensor Installation Dimensions:



⚠ CAUTION

Do not operate products before consulting instruction manual.

Sensor components:



Flow direction:

