

# General Specifications

## Portable Laser Turbidity Meter TB650G

GS 12E7B1-E

### ■ General

With the recent development in membrane filtration technologies, organic filters have come into practical use as a high-performance treatment method for drinking water. In the use of this filter treatment, filter breakage due to a long-term operation is of concern, which makes constant monitoring of filter performance critical and essential. This is where a turbidity meter that can detect a cut of hollow thread and breakage of pinholes is required.

The Portable Laser Turbidity Meter TB650G detects intensity variations of the transmitted/scattered light of semiconductor laser and converts them into turbidity. Being able to detect particles of even  $0.1\mu\text{m}$  with the semiconductor laser, the TB650G can be used as a portable-type turbidity meter for detecting filter breakage.

Furthermore, the TB650G can be applied to cross-check a turbidity meter installed in complying with "the Provisional Guideline for **Cryptosporidium** Compliance."



### ■ Applications

- Monitoring water quality of service water, industrial water, pure water, drinking water, etc. and cross-checking
- Early detection of pathogenic protozoa and bacteria
- Leak check and determination of appropriate replacement of filters such as UF/MF
- Contamination inspection in the food, cosmetics and pharmaceutical industries

### ■ Features

- Compact and lightweight with the printer and the built-in pump
- A wide-range measurement from 0.0001mg/l (or NTU) to 2mg/l (or NTU)
- Less affected by dirt and stains on the sample cell (Low maintenance)
- Simple measurement by connecting a sampling tube, supplying sample solution at 50ml/min, and applying a 100V AC power supply

### ■ General Specification

Measuring method: Semiconductor laser transmitted/scattered light method  
Measuring range: 0.0001-2mg/l or 0.0001-2NTU  
Measurement cycle: Selectable from among 6 seconds/1 minute/10 minutes  
Sample flow rate: 50ml/min  
Sample pressure: Equal to or less than 300kPa  
Sample temperature: 0 to 40°C (non-condensing and non-freezing in the cell)

Wetted part materials: Synthesized quartz glass, PTFE, acryl, polypropylene, PFA, SUS316  
Ambient temperature: 0 to 40°C (non-condensing and non-freezing in the cell)  
Ambient humidity: Equal to or less than 85%RH (non-condensing)  
Alarm display: Cell error (contaminated cell)  
Alarm indication (when exceeding the setpoint)  
Laser error (expiration of light source life and other failures)  
Off-scale (exceeding 2mg/l or 2NTU)  
Output: Built-in printer output; date, time, turbidity  
Data signal; digital RS232C  
analog 4-20mA  
(Load resistance; maximum 550Ω)  
Alarm signal: High limit alarm  
Contact output; contact capacity 250V AC-1A  
Cable terminal: Terminal dimensions 0.13-2.5mm<sup>2</sup>  
(Only pinterminal can be connected)  
Input power supply: Rated 100-110V AC 50/60Hz  
Power consumption: 30VA  
Display: Digital (Minimum indication 0.0001mg/l)  
Weight: Approximately 6.2kg

### ■ Characteristics

Minimum resolution: 0.0001mg/l  
Repeatability: Equal to or less than  $\pm 5\%$  or  $\pm 0.0005\text{mg/l}$

**Portable Laser Turbidity Meter**

Model	Suffix Code	Option Code	Specification
TB650G			Portable laser turbidity meter
Power supply	-1		100-110V AC
	-TM		Always -TN

T01.EPS

**Accessories**

Name	Q'ty
Power supply cable	1
Teflon tube (φ6 x φ4)	3m

T02.EPS

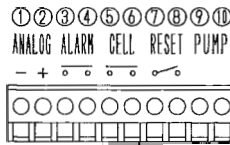
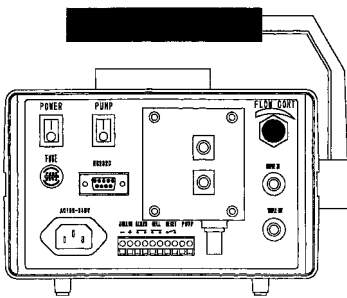
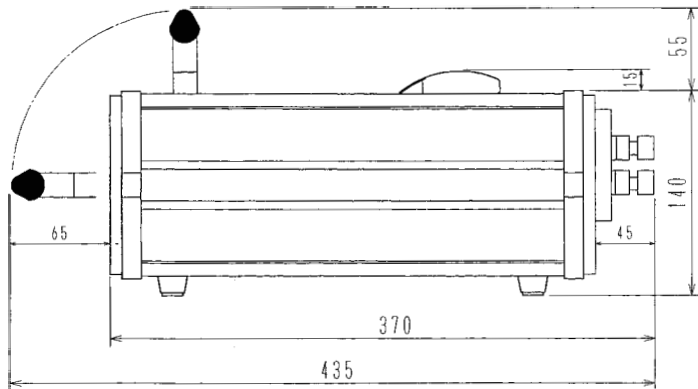
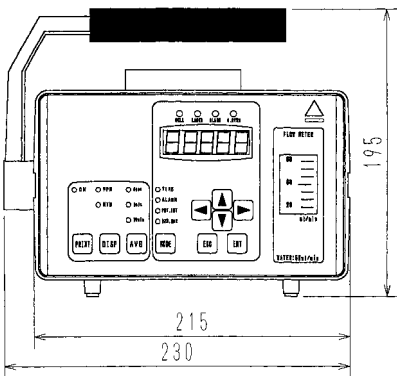
**Auxiliary parts**

Name	Part Number
Paper roll for printer (10 rolls)	K9058TB
Teflon tube (φ6 x φ4) (1m)	L9901AE
Fuse (3A)	A1425EF
Tube coupling (1 set)	K9058TE

T03.EPS

**External Dimensions**

Unit: mm



1. Analog output terminals (1,2)  
Output DC 4-20mA by internal setting switch
2. Alarm output terminals (3,4)  
Output alarm by internal setting switch
3. Cell error output terminals (5,6)  
Output when cell error occurs
4. Reset terminals (7,8)  
For resetting the measurement
5. PUMP (9,10)  
For connecting pump

F01.EPS