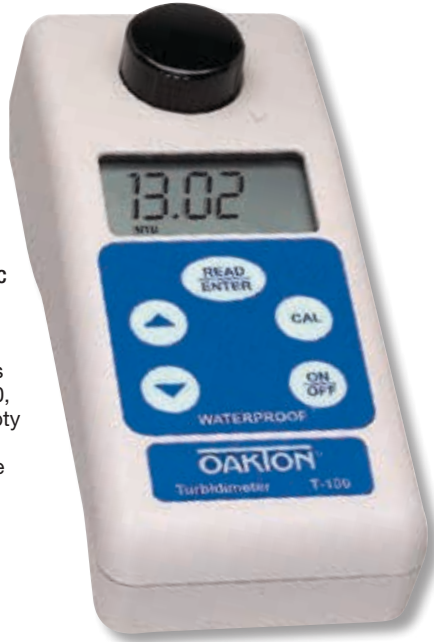


Oakton® T-100 Waterproof Turbidity Meter

Waterproof and dustproof housing floats!

- Meets performance criteria as specified by ISO 7027 (DIN EN 27027) method
- Compliant with ASTM D6855-03 (EPA recognized)
- Easy, four-point, push-button calibration for full-range accuracy
- Auto-ranging from 0 to 1000 nephelometric turbidity units



What's included: four 60-mL primary standards with vials (0.02, 20.0, 100, and 800 NTU), three empty cuvettes with lightshield caps, silicone oil, lint-free cloth, batteries, and hard carrying case.



Meter comes in hard carrying case.



Specifications



| | |
|---|--|
| Range: 0 to 19.99; 20.0 to 99.9; 100 to 1000 NTU | Sample volume: 10 mL |
| Resolution: 0.01, 0.1, 1 | Sample cell size: 25 mm dia x 50 mm H |
| Accuracy: ±2% of reading from 0 to 500 NTU; ±3% of reading 500 to 1000 NTU | Response time: less than 6 seconds |
| Light source: infrared LED | Data logging capabilities: none |
| | Output: none |

| Description | Power | Catalog number | Price |
|---|-------------------------------|-----------------------------|-------|
| Oakton T-100 waterproof turbidity meter | Four AAA batteries (included) | GY-35635-00 | |

Accessories

[GY-35635-52 Replacement calibration set.](#) Includes one each of primary calibration cuvettes filled with 0.02, 20.0, 100, and 800 NTU standard

[GY-35653-55 Cuvettes.](#) Pack of 3

[GY-09376-00 Replacement batteries;](#) 1.5 V, AAA. Pack of 12

Teky's Tips



Regulatory Methods for Turbidity Measurements

Depending on your needs, look for instruments compliant to either or both of these standards:

ASTM D6855-03—an EPA recognized standard test method for static determination of turbidity below 5 NTU primarily for municipal drinking water and ultra-pure water.

ISO 7027 (DIN EN 27027)—commonly used throughout the world; it specifies a light source wavelength of 860 nm, most often a light-emitting diode (LED).

US EPA Method 180.1—commonly used in the United States but also worldwide; it specifies a tungsten filament lamp light source with light wavelengths between 400 and 600 nm.

Good Laboratory Practices for Turbidity Measurements

- Avoid samples containing air bubbles, coarse debris, or floating sediments—all of these can cause erroneous measurements
- For the highest accuracy, calibrate your turbidity meter with the appropriate calibration standard in each measuring range
- Etched, scratched, or dirty sample vials scatter light and give inaccurate readings; always use clean vials that have a protective case or extra long tubes to allow for handling outside the measuring area
- Wear gloves to avoid smudges or fingerprints on vial surface and to keep the surface clean
- Take readings on smooth sturdy surfaces—vibration can cause errors in your measurements

Secchi Disk

Simple to use for turbidity measurement

- Use to determine turbidity or degree of visibility in natural water supplies
- Braided, stretch-resistant line marked at half and full meter intervals up to 20 meters

Simple-to-use secchi disk is a weighted, 20-cm diameter black and white plate that sinks parallel to the water's surface.



| Description | Catalog number | Price |
|-------------|-----------------------------|-------|
| Secchi disk | GY-05492-00 | |

Handheld Turbidity Meters

Get higher accuracy and a wider range

- Advanced microprocessor offers high-accuracy readings
- Available with either EPA- or ISO-compliant optical systems
- Battery operated for field and on-site testing convenience

These compact portable meters are equipped with a unique optics configuration to read low turbidity levels down to 0.05 NTU and high levels up to 4000 NTU. Large, menu-driven LCD features five measuring units, seven user-selectable languages, data logging capabilities to 500 points, and USB interface for downloading data to your computer.

What's included: 60 mL each of 0, 1, and 10 NTU standards; plastic sample bottle; four glass sample vials; USB cable and wall plug; and waterproof plastic carrying case.



Specifications

Range: 0 to 4000 NTU
Resolution: 0.01 NTU/FNU from 0.00 to 10.99, 0.1 NTU/FNU from 11.0 to 109.9, 1 NTU/FNU from 110 to 4000
Accuracy: ±2% from 0 to 100 NTU; ±3% from 100 to 4000 NTU
Light source: US EPA model 05563-22: tungsten lamp
 ISO model 05563-24: 860 nm LED
Photodetector: silicon photodiode
Sample volume: 10 mL
Sample cell size: 25 mm dia, flat-bottom tube
Response time: less than 2 seconds
Data logging capabilities: 500 points
Output: USB

| Description | Power | Catalog number | Price |
|--|---|-----------------------------|-------|
| Portable turbidity meter, US EPA 180.1 compliant | Rechargeable lithium battery (included) and wall plug | GY-05563-22 | |
| Portable turbidity meter, ISO 7027 compliant | | GY-05563-24 | |

Turbidity Standards, 60-mL bottle

| For model 05563-22 | | | For model 05563-24 | | |
|--------------------|-----------------------------|-------|--------------------|-----------------------------|-------|
| Value | Catalog number | Price | Value | Catalog number | Price |
| 0 NTU | GY-05565-25 | | 0 NTU | GY-05565-25 | |
| 1 NTU | GY-05563-31 | | 1 NTU | GY-05563-51 | |
| 10 NTU | GY-05563-33 | | 10 NTU | GY-05563-53 | |
| 100 NTU | GY-05563-35 | | 100 NTU | GY-05563-55 | |

[GY-05563-66](#) Sample vials, glass. Pack of 6

Portable Turbidity Meter

Simple calibrations

- Meets or exceeds design and performance criteria as specified in US EPA method 180.1
- Eliminate guesswork or duplicate runs with the innovative Rapidly Settling Turbidity™ (RST)—allows for accurate and repeatable measurement of rapidly settling samples
- Customizable power and connectivity options for added versatility



This portable turbidity meter features a unique optical system that compensates for potential interferences. Intuitive user interface prompts you during calibration and verification for hassle-free setup.

Additional meter features include 23 preprogrammed menu languages, time-and-date stamped readings, and closed cap control eliminating stray light interference.

What's included: StabiCal™ primary calibration standards in sealed vials (20, 100, 800 NTU), six sample cells, 10 NTU primary verification standard, silicone oil, oiling cloth, batteries, and carrying case.



Specifications

Range: 0 to 1000 NTU
Resolution: 0.01 NTU on lowest range
Accuracy: ±2% of reading
Light source: tungsten filament lamp
Photodetector: silicon photodiode

Sample volume: 10 mL
Sample cell size: 60 mm H x 25 mm dia
Response time: mode dependent
Data logging capabilities: 500 points
Output: optional USB

| Description | Power | Catalog number | Price |
|--------------------------------|---|-----------------------------|-------|
| 2100Q portable turbidity meter | Four AA batteries (included) or 100 to 230 VAC, 50/60 Hz (with optional power module) | GY-99511-10 | |

Accessories

- [GY-99511-13](#) Power module with USB output; 100 to 230 VAC, 50/60 Hz
- [GY-99511-14](#) Power module; 100 to 230 VAC, 50/60 Hz
- [GY-99511-20](#) Replacement StabiCal calibration standards. Includes one sealed vial each of 20, 100, 800 NTU
- [GY-99511-21](#) Replacement 10 NTU verification standard
- [GY-99512-75](#) Replacement silicone oil, 15 mL
- [GY-99511-55](#) Replacement sample cells. Pack of 6
- [GY-99512-68](#) Degassing kit

Laboratory Turbidimeters

Get accurate, stable readings

- Smart self-diagnostics alert you to problems including using the wrong calibration standard
- Models 99512-00, -07, and -10 meet US EPA method 180.1
- Model 99512-15 meets ISO 7027 turbidity measurement standards and uses a monochromatic light-emitting diode (LED) as a light source

These benchtop turbidity meters offer the most versatile and advanced instruments available for nephelometric measurement. Push-button calibration and operation eliminates manual adjustments or zeroing. The optical system provides accurate results over a wide range of samples and turbidity, simplifying routine laboratory work.

What's included: six sample cells; 30 mL each of <0.1, 20, 200, 1000, and 4000 NTU StablCal® stabilized formazin primary standards; silicone oil and oiling cloth; dust cover; and power cord. The deluxe meter also includes a built-in printer and a 7500 NTU StablCal® stabilized formazin vial.



Deluxe model 99512-10 with built-in printer

Standard Meter

- Wide measuring range using three selectable readout modes—0 to 4000 nephelometric turbidity units, 0 to 26,800 NEPH (Nephelos), and 0 to 980 EBC (European Brewing Convention)
- Optional ratioing switches instrument from multidetector ratio mode to nonratio
- Signal averaging minimizes noise and display fluctuations
- Air purge system connection purges the optical compartment with dry air and minimizes condensation on the sample cell

Deluxe Meters include all the features of the standard model plus:

- A wider measuring range—0 to 10,000 NTU, and 0 to 2450 EBC
- Four measurement modes—NTU, absorbance, percentage transmittance, and platinum and cobalt color units (99512-10 only)
- Programmable signal averaging
- Built-in printer and recorder output



| Description | | Standard turbidimeter | | Deluxe turbidimeters | |
|-------------------|--------------------|---|-----------------------------|--|---|
| Catalog number | | GY-99512-00 | GY-99512-07 | GY-99512-10 | GY-99512-15 |
| Measurement modes | | NTU, EBC, or Nephelo | | NTU, EBC, Nephelo, ABS, %T, CU, two user-defined units | FNU, FAU, NTU, EBC, ABS, %T, two user-defined units |
| NTU mode | Ratio on | 0 to 0.999, 0 to 9.99, 0 to 99.9, 0 to 4000 | | 0 to 0.999, 0 to 9.99, 0 to 99.9, 0 to 10,000 | |
| | Ratio off | 0 to 40.0 | | 0 to 40.0 | 0 to 1000 |
| Nephelo mode | Ratio on | 0 to 9.99, 0 to 99.9, 0 to 26,800 | | 0 to 9.99, 0 to 99.9, 0 to 67,000 | — |
| | Ratio off | 0 to 268 | | 0 to 268 | — |
| EBC mode | Ratio on | 0 to 0.999, 0 to 9.99, 0 to 99.9, 0 to 980 | | 0 to 0.999, 0 to 9.99, 0 to 99.9, 0 to 2450 | |
| | Ratio off | 0 to 9.8 | | 0 to 9.8 | |
| Light source | | Tungsten lamp | Tungsten lamp | Tungsten lamp | LED |
| Photodetector | | Silicon photodiode | | Silicon photodiode | |
| Absorbance | | — | — | Manual: 0.0 to 0.999 ABS, 0 to 2.00 ABS | — |
| Transmittance | | — | — | Range: 0.0 to 200 %T; resolution: 0.1 %T | — |
| Color (at 455 nm) | | — | — | Range: 0 to 500 CU | — |
| Accuracy† | Turbidity | ±2% of reading plus 0.01 NTU from 0 to 1000 NTU, ±5% of reading from 1000 to 4000 NTU | | ±2% of reading plus 0.01 NTU from 0 to 1000 NTU, ±5% of reading from 1000 to 4000 NTU, ±10% of reading from 4000 to 10,000 NTU | |
| | Color measurements | — | | ±2% CU from 0 to 30 (calibrated at 15 CU), ±5% CU from 0 to 500 (calibrated at 500 CU) | — |
| Sample volume | | 30 mL required | | 30 mL required | |
| Sample cell size | | Seven, 25 mm dia x 95 mm H | | Seven, 25 mm dia x 95 mm H | |
| Printer | | — | | Built-in graphics capable 28 column | |
| Output | | RS-232 serial interface (bidirectional) | | RS-232 serial interface (bidirectional) | |
| Recorder output | | 0 to 1 V programmable limits | | 0 to 1 V programmable limits | |
| Power | | 110 VAC | 230 VAC | 110 VAC | 230 VAC |
| Price | | — | | — | |

†Reference conditions: 23°C ±2°C; 50% RH ±10 RH noncondensing; 115/230 VAC, ±17%, 50/60 Hz.

Wait!

There's More at ColeParmer.com

Find all the product specs you need!

Accessories

- [GY-99512-50](#) Calibration sets for 99512-00, -07
- [GY-99512-52](#) Calibration sets for 99512-10, -15
- [GY-99512-66](#) Filter modules
- [GY-99512-68](#) Degassing kit
- [GY-99512-70](#) Sample cells. Pack of 6
- [GY-99512-72](#) Sample cell oiling cloth
- [GY-99512-75](#) Replacement silicone oil; 15 mL
- [GY-99512-78](#) Sample cell adapter, 19 mm

Micro 100 Laboratory Turbidimeters

Don't worry about inaccurate measurements

- Auto calibration alert ensures that your meter is calibrated for accurate measurements and simple calibration
- Quick connection lamp module for low maintenance

With a resolution of 0.01 nephelometric turbidity units at low turbidity readings and an extended range to 1000 NTU, these benchtop turbidity meters are an ideal and affordable tool for research, as well as routine analytical measurements. RS-232 output downloads date, time, and NTU reading—can be captured with a serial printer or data recorder.

Model with infrared light source meets international standard ISO 7027 for turbidity measurement.

What's included: one set of sealed reusable primary calibration standards (0.02, 10, and 1000 NTU), two measuring cuvettes with lightshield caps, and plug-in power adapter.



Specifications

Range: auto ranging from 0 to 1000 NTU
Resolution:
 0 to 9.99 NTU: 0.01
 10 to 99.9 NTU: 0.1
 100 to 1000 NTU: 1

Accuracy: ±2% of rdg plus 0.01 NTU
Sample volume: 30 mL (27 mL minimum)
Sample cell size: 28 mm dia x 70 mm H
Output: RS-232 serial port

| Description | Light source | Power | Catalog number | Price |
|---|---------------------------------|-------------|-----------------------------|-------|
| Benchtop laboratory turbidimeter | Quick-connect tungsten filament | 110 VAC | GY-99543-05 | |
| | | 220 VAC | GY-99543-00 | |
| Benchtop laboratory turbidimeter with infrared light source | Infrared | 110/220 VAC | GY-99543-15 | |

[GY-99543-50](#) Replacement calibration set; 0.02, 10, and 1000 NTU

Turbidity Standard Solutions

Calibrate to ensure accuracy

Primary Standard Solutions can be used to calibrate nephelometers or turbidimeters. EPA-approved polymeric standards outlast Formazin standards. Suspended polymeric particles virtually never settle or clump. Solutions are guaranteed to maintain NTU values within ±1% for one year. Available in one-liter bottles.



| NTU value | Catalog number | Price |
|-----------|-----------------------------|-------|
| 0 | GY-08391-19 | |
| 0.2 | GY-08391-08 | |
| 0.5 | GY-08391-09 | |
| 1.0 | GY-08391-03 | |
| 10.0 | GY-08391-04 | |
| 40.0 | GY-08391-05 | |

StabCal® Turbidity Standard Solutions offer a guaranteed stability of at least one year. Standards are referenced in US EPA-accepted Hach method 8195 and meet NPDES and NPDWR[†] compliance reporting requirements. Available in 500-mL bottles.



| NTU value | Catalog number | Price |
|-----------|-----------------------------|-------|
| < 0.1 | GY-99512-54 | |
| 20 | GY-99512-56 | |
| 200 | GY-99512-58 | |
| 800 | GY-99512-60 | |
| 1000 | GY-99512-62 | |

ProCal Primary Turbidity Standards are formulated to provide instrument-specific accuracy with a safe, nontoxic formulation—offering improvements in stability over polymer and formazin alternatives. US EPA-approved to meet NPDES and NPDWR[†] compliance reporting requirements. Two-year shelf life.



| NTU value(s) | Volume | Catalog number | Price |
|---|-------------------------------------|-----------------------------|-------|
| For Hach 1720 process turbidimeter | | | |
| 0.0, 20 | Four 1-L bottles of each (8 total) | GY-99900-33 | |
| 0.0 | One 1-L bottle | GY-99900-34 | |
| 1.0 | One 1-L bottle | GY-99900-35 | |
| 20 | One 1-L bottle | GY-99900-36 | |
| For Hach 2100N laboratory turbidimeter | | | |
| 0.0, 20, 200, 1000, 4000 | One 500-mL bottle of each (5 total) | GY-99900-37 | |
| 0.0 | One 500-mL bottle | GY-99900-38 | |
| 20 | One 500-mL bottle | GY-99900-39 | |
| 200 | One 500-mL bottle | GY-99900-40 | |
| 1000 | One 500-mL bottle | GY-99900-41 | |
| For Hach 2100P portable turbidimeter | | | |
| 0.0, 20, 100, 800 | One 500-mL bottle of each (4 total) | GY-99900-42 | |
| 0.0 | One 500-mL bottle | GY-99900-43 | |
| 20 | One 500-mL bottle | GY-99900-44 | |
| 100 | One 500-mL bottle | GY-99900-45 | |
| 800 | One 500-mL bottle | GY-99900-46 | |
| For Hach 2100Q portable turbidimeter | | | |
| 0.0, 20, 100, 800 | One 500-mL bottle of each (4 total) | GY-99900-47 | |
| 0.0 | One 500-mL bottle | GY-99900-48 | |
| 20 | One 500-mL bottle | GY-99900-49 | |
| 100 | One 500-mL bottle | GY-99900-50 | |

[†]NPDES=National Pollutant Discharge Elimination System, NPDWR=National Primary Drinking Water Regulations

Turbidity

Turbidity and Chlorine Meter No need for multiple meters

- Optical system permits EPA-compliant measurements for turbidity and chlorine
- Innovative measurement technology provides added precision, sensitivity, and dependability
- Simple user interface makes the meter easy to use



This meter is designed for precision measurement of turbidity and chlorine in a variety of lab applications. Use meter for testing drinking water, food and beverage waters, or for any other solutions where sample clarity is important. Advanced optics allow for measurements that are compliant with US EPA 180.1 for turbidity and EPA 330.5 for chlorine.

Meter features menu-driven operation via an easy-to-read LCD. Six selectable languages, data logging capabilities, and programmable auto-off provide added convenience.

What's included: 60 mL each of 0, 1, 10 NTU standards; 100 each of free and total chlorine DPD tablets; sample bottle; four sample tubes; and universal AC adapter.



Specifications

| Parameter | Turbidity | Chlorine |
|------------------|--|--|
| Units of measure | NTU, FNU, FAU, ASBC, EBC | ppm |
| Range | 0 to 4000 NTU | 0 to 10 ppm |
| Resolution | 0.01 NTU from 0 to 10.99, 0.1 NTU from 11 to 109.9, 1 NTU from 110 to 4000 | 0.01 ppm from 0 to 5, 0.1 ppm from 5 to 10 |
| Accuracy | ±2% | 0.05 or ±2% |
| Light source | Tungsten lamp | 525 nm LED |

Sample volume: 10 mL **Output:** RS-232
Sample cell: 25-mm dia vial **Power:** 100 to 240 VAC adapter (included)
Data logging capabilities: 4000 points

| Description | Catalog number | Price |
|------------------------------|-----------------------------|-------|
| Turbidity and chlorine meter | GY-05563-30 | |

[GY-05564-24](#) Free chlorine reagent tablets, DPD #1. Box of 100

[GY-05564-26](#) Total chlorine reagent tablets, DPD #3. Box of 100

Turbidity Standards, 60-mL bottle

| NTU value | Meets standard | Catalog number | Price |
|-----------|----------------|-----------------------------|-------|
| 0 | ISO/EPA | GY-05565-25 | |
| 1 | EPA | GY-05565-45 | |
| 10 | EPA | GY-05565-50 | |
| 100 | EPA | GY-05565-55 | |

AquaSensors™ DataStick™ Turbidity Sensor Monitor readings remotely

- Plug-and-play MODBUS RTU communications for direct output of measured readings
- Wide 0 to 4000 NTU measurement range—ideal for drinking water applications!
- Infrared light source conforms to ISO 7027 standard



99900-10



99900-20

Durable polycarbonate sensor head has exceptional chemical resistance and mechanical strength. CPVC back body and communications adapter features 1" NPT(M) threads for submersible installation. Sensor comes precalibrated for turbidity and temperature for easy initial setup and reading.

Optional local display provides easy viewing of measured readings. Display comes with a 4 to 20 mA output for relay of measurements to a PLC, data logger, or chart recorder. Other output configurations are available via special order; call for details.



Specifications

Range: 0 to 4000 NTU **Thread size:** 1" NPT(M)
Resolution: 0.1 NTU **Cable:** 10 ft (3 m)
Accuracy: 1% of reading **Wetted parts:** quartz measurement window, polycarbonate sensor head
Light source: infrared
Sample
 Max flow rate: 10 ft/s
 Temperature: 23 to 122°F (-5 to 50°C)
 Max pressure: 65 psig
Output: MODBUS RTU
Power: 10 to 30 VDC (not included)

| Description | Catalog number | Price |
|--|-----------------------------|-------|
| AquaSensors DataStick turbidity sensor | GY-99900-10 | |

Accessories

[GY-99900-20](#) Local display monitor with 4 to 20 mA output

[GY-99900-32](#) Formazin stock solution, 4000 NTU. 500 mL

Six-Paddle Stirrer

Minimize chemical waste

- Determine the exact amount of alum or polymer necessary to trigger flocculation
- Stirrer designed to meet method D2035 for Coagulation-Flocculation Jar Test
- Standard in the industry for jar testing
- Determine optimal chemical dosages for flocculation

Easily regulate the stirrer speed from 0 to 300 rpm and view the readout on the convenient LCD. Stirrer includes six square B-Ker² beakers that stir up to six samples simultaneously.

The two-liter beakers feature durable ¼" -thick acrylic construction to ensure a constant sample temperature for consistent results. Unique beaker design minimizes sample swirl to reduce spillage during high stirring speeds. A built-in floc illuminator provides glare-free lighting to provide diffused lighting of samples.

What's included: a 6-ft cord with three-prong plug for 120 or 220 VAC operation, fluorescent lamp floc illuminator, six B-Ker² beakers, and dust cover. Shipping weight 60 lb (27.3 kg).



| Description | Power | Catalog number | Price |
|--------------------|-------------------|-----------------------------|-------|
| Six-paddle stirrer | 110 VAC, 50/60 Hz | GY-99521-00 | |

Accessories

[GY-99520-50](#) Replacement B-Ker² beaker

Flocculator Jar Testers

Save money and chemicals by testing on a small scale

- ASTM D203S compliant method
- Choose from portable or laboratory models, with four or six positions

Jar testers are designed to test the efficiency of flocculation or precipitation reagents on a small scale. Stirring rod shafts can individually be stopped and height can be adjusted while the system is operating. Choose from portable or laboratory testers.

Portable Jar Tester is ideal for performing on-site jar tests. The space-saving design has four stirring positions situated around a central lamp, making it easier to observe the flocculation process. Set stirring speed mechanically to 20, 40, 50, 100 or 120 rpm, and set time for 1 to 30 minutes. This portable tester requires 1-L beakers (order separately, 34512-11, pack of 6).

Laboratory Jar Testers are available with four or six positions. The JTL model has a single motor driving all positions at a consistent speed from 10 to 300 rpm; timer can be set from 1 to 999 minutes or 0 to 99 hours. The FC model offers individual speed control—nine settings from 10 to 200 rpm—at each position. Both feature an illuminated back panel for enhanced visibility. These lab units require standard 2-L beakers (order separately, 34512-13, pack of 4).

What's included: stainless steel stirring rods and universal AC adapter.

NEW



| Model | Portable (FP) | Laboratory (JLT) | | Laboratory with individual speed control (FC) | |
|---------------------|-----------------------------|--|-----------------------------|---|-----------------------------|
| Catalog number | GY-99561-05 | GY-99561-13 | GY-99561-15 | GY-99561-17 | GY-99561-19 |
| Number of positions | 4 | 4 | 6 | 4 | 6 |
| Stirring control | 20, 40, 50, 100, 120 rpm | 10 to 300 rpm (variable) | | 10, 15, 30, 45, 60, 90, 120, 150, 200 rpm | |
| Timer control | 1 to 30 min | 1 to 999 min; 1 to 99 hrs; or continuous | | Continuous | |
| Beaker size | 1 L | 2 L | | 2 L | |
| Power | 100/240 VAC, 50/60 Hz | 100/240 VAC, 50/60 Hz | | 100/240 VAC, 50/60 Hz | |
| Price | | | | | |

Accessories

[GY-34512-11](#) PYREX[®] glass beakers; 1000 mL, for portable unit. Pack of 6
[GY-34512-13](#) PYREX[®] glass beakers; 2000 mL, for laboratory units. Pack of 4