# **HYDROMETERS**

# **VEE GEE Scientific** Laboratory Equipment & Supplies



Contract Research Research Research

VEE GEE

10

# **HYDROMETERS**

VEE GEE Hydrometers are manufactured to exacting standards. Each instrument is individually tested and inspected to ensure the highest level of dependability, accuracy, and uniformity. Scales include: API, Alcohol, Battery, Baume, Brix, Calcium Chloride, Liquid Petroleum Gas, Plato, Specific Gravity, Sodium Chloride & Soil Analysis.

#### Hydrometers Explained . . .

The hydrometer is an instrument which is constructed on the Archimedes principle that a solid body displaces its own weight of the liquid in which it floats. Hydrometers can be divided into two general classes; namely for liquid heavier than water and for liquids lighter than water. The base hydrometer scale is Specific Gravity, in which distilled water equals 1.000 as the initial point. Liquids lighter than water are scaled below 1.000 specific gravity and liquids heavier than water are scaled above 1.000 specific gravity.

Many other scales are commonly used, such as API, Brix, Baume, Plato, etc. All of which are convertible into specific gravity by formula.

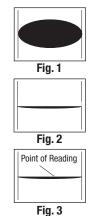
Hydrometers are usually calibrated at 15°C/60°F. To determine the density of a liquid, the liquid should be at 15°C/60°F. If the temperature varies, the liquid will either contract or expand, depending upon the temperature. Therefore, the density fluctuates with the temperature. Where there is a variation from the standard 15°C/60°F, corrections must be applied to the hydrometer reading. To assure proper corrections, a separate accurate thermometer should be used, or a hydrometer in combination with a thermometer, which is sometimes referred to as a "thermohydrometer."

#### The correct method of reading a hydrometer follows:

- A. Observe a point below the plane of the liquid surface. The surface should appear as an ellipse (Fig. 1).
- B. The line of vision is raised until the surface, seen first as an ellipse, becomes a straight line (Fig. 2).
- C. The point at which this line cuts the hydrometer scale is the reading of the instrument (Fig. 3).

If the liquid is not sufficiently clear for readings to be made in this manner, read from above the surface and estimate as accurately as possible the point to which the liquid rises on the hydrometer stem. Since hydrometers are calibrated to give correct indications when read at the principal surface of the liquid, correct the reading just taken at the upper edge of the meniscus by an amount equal to this height above the principal surface of the liquid. The amount of correction can be determined with sufficient accuracy for most purposes by taking a few readings on the upper and lower meniscus in a clear liquid of the same character as that being tested and noting the differences.







### **Alcohol Hydrometers - Tralle and Proof Scales**

#### Verify the alcohol content of distilled spirits

Both models include the same ranges; model 6612-2TS also features an internal thermometer with SafetyBLUE fill for measuring solution temperature from -10 to  $+100^{\circ}$ F.

Calibrated for use at 15°C/60°F

NOTE: Not for use with beer or wine.

ALCOHOL HYDROMETERS - TRALLE AND PROOF SCALES								
Cat. No.	Range	Subdivisions/ Tolerance	Range	Subdivisions/ Tolerance	Approx. Length (in/mm)			
	TRALLE		PR	)0F				
6612-1	0 to 100%	1% / ±1%	0 to 200	2 / ±2%	12 / 305			
6612-2TS	0 to 100%	1%/+1%	0 to 200	2/±2%	14 / 355			

# Alcohol Hydrometers - Proof Scale, Internal Revenue Service Spec.

Verify the alcohol content of your ethyl alcohol-based spirits with these hydrometers

- · Tolerances match those laid out by the Internal Revenue Service specifications
- Calibrated for use at 15°C/60°F

ALCOHOL HY	DROMETERS - IRS	SPECIFICATION			
Cat. No.	Proof Range	IRS Size	Subdivisions	Tolerance	Approx. Length (in/mm)
6613-B	80 to 120	В	0.5	±0.5%	9 / 230
6613-F	0 to 20	F	0.2	±0.3%	12/305
6613-G	20 to 40	G	0.2	±0.4%	12/305
6613-H	40 to 60	Н	0.2	±0.4%	12/305
6613-l	60 to 80	1	0.2	±0.3%	12/305
6613-K	75 to 95	K	0.2	±0.3%	12/305
6613-L	90 to 110	L	0.2	±0.3%	12/305
6613-M	105 to 125	M	0.2	±0.3%	12/305
6613-N	125 to 145	N	0.2	±0.3%	12/305
6613-P	145 to 165	Р	0.2	±0.3%	12/305
6613-Q	165 to 185	Q	0.2	±0.2%	12/305
6613-R	185 to 206	R	0.2	±0.2%	12 / 305

### Alcohol Hydrometers w/3-point NIST Certificate and PVC Case-Proof Scale, Internal Revenue Service Specification

Verify the alcohol content of your ethyl alcohol-based spirits with these hydrometers

- Tolerances match those laid out by the Internal Revenue Service specifications.
- Commonly used in distilleries requiring certification
- Calibrated for use at 15°C/60°F

INCLUDES: Hydrometer, NIST-traceable certificate with 3 data points, and a protective PVC case

ALCOHOL HY	DROMETERS W/ NI	ST CERT. IRS SPECS	. & CASE		
Cat. No.	Proof Range	IRS Size	Subdivisions	Tolerance	Approx. Length (in/mm)
6613-B-C	80 to 120	В	0.5	±0.5%	9 / 230
6613-F-C	0 to 20	F	0.2	±0.3%	12 / 305
6613-G-C	20 to 40	G	0.2	±0.4%	12 / 305
6613-H-C	40 to 60	Н	0.2	±0.4%	12 / 305
6613-I-C	60 to 80	1	0.2	±0.3%	12 / 305
6613-K-C	75 to 95	K	0.2	±0.3%	12 / 305
6613-L-C	90 to 110	L	0.2	±0.3%	12 / 305
6613-M-C	105 to 125	M	0.2	±0.3%	12 / 305
6613-N-C	125 to 145	N	0.2	±0.3%	12 / 305
6613-P-C	145 to 165	Р	0.2	±0.3%	12 / 305
6613-Q-C	165 to 185	Q	0.2	±0.2%	12 / 305
6613-R-C	185 to 206	R	0.2	±0.2%	12/305



6613-F

6612-2TS

### Plato Hydrometers with Thermometers

Calibrated to show the concentration of extract as a percentage by weight in brewery wort

For example, a 5°P reading indicates 5 g of extract per 100 g of wort.

- Primarily used in the brewing industry
- Calibrated for use at 68°F/20°C

PLATO HYD	OROMETERS V	VITH THERMON	IETERS			
Cat. No.	Plato Range	Subdivisions	Approx. Length (in/mm)	Thermometer Range	Thermometer Subdivision	Thermometer Liquid Fill
6614TS-5	0 to 8.5°	0.1°	14/360	0 to 50°C	1°C	SafetyBLUE
6614TS-6	7.5 to 16°	0.1°	14/360	0 to 50°C	1°C	SafetyBLUE
6614TS-7	15.5 to 24°	0.1°	14/360	0 to 50°C	1°C	SafetyBLUE
6614TS-8	0 to 32°	0.5°	14/380	30 to 120°F	2°F	SafetyBLUE

6614TS-5

# **API ASTM Hydrometers with Thermometer**

#### Chosen as the Standard Scale for Petroleum

The API Scale was selected as the standard hydrometer scale for petroleum products by the American Petroelum Institute (API), the U.S. Bureau of Mines, and the National Institute of Standards and Technology (NIST).

- The API Scale is based on the following formula: °API @ 60°F = (141.5/(Specific Gravity at 60°F) 131.5
- The thermometer scale is located in the body of the hydrometer
- Calibrated for use at 15°C/60°F

API ASTM	HYDROMETE	RS WITH THER	MOMETER				
Cat. No.	ASTM No.	API Range	Subdivisions	Approx. Length (in/mm)	Thermometer Range	Thermometer Subdivision	Thermometer Liquid Fill
6752HTS	52H	9 to 21°	0.1°	15/380			
6753HTS	53H	19 to 31°	0.1°	15/380			
6754HTS	54H	29 to 41°	0.1°	15 / 380	0 to 150°F	JoE	CofotyPLLE
6755HTS	55H	39 to 51°	0.1°	15/380		2°F	SafetyBLUE
6756HTS	56H	49 to 61°	0.1°	15 / 380			
6757HTS	57H	59 to 71°	0.1°	15/380			

## **Battery Hydrometer - Syphon Set**

#### For Measuring Battery Acid

The Battery Acid Hydrometer Set is used in many industrial settings including, fleet maintenance, automotive services, solar-powered system maintenance, and general industrial applications.

- The rubber parts are made of nitrile rubber, which is chemically inert and durable
- A reinforced box provides storage and is compartmented to eliminate breakage
- Calibrated for use at 25°C/77°F

**INCLUDES:** Specific Gravity Hydrometer, glass syphon tube with rubber bulb, nozzle, and clamp

BATTERY H	YDROMETERS				
Cat. No.	Description	Specific Gravity Range	Subdivisions	Approx. Length (in/mm)	6605
6605-5	Hydrometer and Syphon Set	1.150 to 1.300	0.005	20 / 507	0000
6605-5H	Hydrometer Only	1.150 to 1.300	0.005	8.7 / 220	
6605-0SY	Glass syphon tube, rubber bulb, nozzle, and clamp only			20 / 507	

# **Baume (Heavy) Hydrometers**

#### These Baume Hydrometers are for liquids heavier than water

- The Baume scale is based on the following formula: Specific Gravity = 145/(145-degrees Baume)
- Calibrated for use at 15°C/60°F

ounore	100 101 000 at	10 0,00 1						
BAUME (HE	AVY) HYDROMET	ERS		BAUME (HI	BAUME (HEAVY) HYDROMETERS			
Cat. No.	Baume Range	Subdivisions	Length (in/mm)	Cat. No.	Baume Range	Subdivisions		
6609-1	0 to 12°	0.1°		6609-10	0 to 35°	0.5°		
6609-2	9 to 21°	0.1°		6609-11	0 to 50°	0.5°		
6609-3	19 to 31°	0.1°		6609-12	35 to 70°	0.5°		
6609-4	29 to 41°	0.1°	12 / 305	6609-13	0 to 50°	1.0°		
6609-5	39 to 51°	0.1°		6609-14	0 to 70°	1.0°		
6609-8	0 to 15°	0.1°		6609-15	0 to 90°	1.0°		
6609-9	0 to 25°	0.2°						



Length (in/mm)

12/305

### **Brix Hydrometers**

#### Brix Hydrometers are calibrated to show the percentage of sucrose by weight at 20°C/68°F

The Brix scale is based on the following:  $1^{\circ}$ Brix = 1% sucrose by weight at the specified temperature( $20^{\circ}$ C/68°F)

			•	-	•	•	•
BRIX HYDROMETERS			BRIX HYDE	ROMETERS			
Cat. No.	Brix Range	Subdivisions	Approx. Length (in/mm)	Cat. No.	Brix Range	Subdivisions	Approx. Length (in/mm)
6601-1	0 to 12°	0.1°	13 / 330	6601-10	0 to 35°	0.5°	13 / 330
6601-2	9 to 21°	0.1°	13 / 330	6601-11	35 to 70°	0.5°	13/330
6601-3	19 to 31°	0.1°	13 / 330	6601-13	-5 to 5°	0.1°	13 / 330
6601-4	29 to 41°	0.1°	13 / 330	6601-14	5 to 15°	0.1°	13 / 330
6601-5	39 to 51°	0.1°	13 / 330	6601-15	15 to 25°	0.1°	13 / 330

#### **Brix Hydrometers with °C Thermometers**

#### Brix Hydrometers are calibrated to show the percentage of sucrose by weight at 20°C/68°F

The Brix scale is based on the following:  $1^{\circ}$ Brix = 1% sucrose by weight at the specified temperature ( $20^{\circ}$ C/68°F)

• The thermometer includes a correction scale printed opposite the temperature scale for conversion of the reading to 20°C/68°F

BRIX HYDROI	METERS WITH <sup>°</sup>	C THERMOMET	ERS				
Cat. No.	Brix Range	Subdivisions	Approx. Length (in/mm)	Thermometer Range	Thermometer Subdivision	Thermometer Liquid Fill	
6601TS-1	0 to 12°	0.1°	14.5 / 370				6601TS-2
6601TS-2	9 to 21°	0.1°	14.5 / 370				000110 2
6601TS-3	19 to 31°	0.1°	14.5 / 370				
6601TS-4	29 to 41°	0.1°	14.5 / 370		100		40 T T
6601TS-5	39 to 51°	0.1°	14.5 / 370	0.45 5000			
6601TS-6	49 to 61°	0.1°	14.5 / 370				
6601TS-8	69 to 81°	0.1°	14.5 / 370	0 to 50°C	1°C	SafetyBLUE	
6601TS-10	0 to 35°	0.5°	14.5 / 370				
6601TS-12	0 to 70°	1.0°	14.5 / 370				
6601TS-13	-5 to 5°	0.1°	14.5 / 370				
6601TS-14	5 to 15°	0.1°	14.5 / 370				
6601TS-15	15 to 25°	0.1°	14.5 / 370				

### **Brix Hydrometers with °F Thermometers**

#### Brix Hydrometers are calibrated to show the percentage of sucrose by weight at 20°C/68°F

The Brix scale is based on the following:  $1^{\circ}$ Brix = 1% sucrose by weight at the specified temperature ( $20^{\circ}$ C/68°F)

 The thermometer includes a correction scale printed opposite the temperature scale for conversion of the reading to 20°C/68°F

BRIX HYDRON	BRIX HYDROMETERS WITH °F THERMOMETERS								
Cat. No.	Brix Range	Subdivisions	Approx. Length (in/mm)	Thermometer Range	Thermometer Subdivision	Thermometer Liquid Fill			
6601TS-1F	0 to 12°	0.1°	14.5 / 370						
6601TS-2F	9 to 21°	0.1°	14.5 / 370						
6601TS-3F	19 to 31°	0.1°	14.5 / 370	30 to 130°F	2°F	SafetyBLUE			
6601TS-10F	0 to 35°	0.5°	14.5 / 370						
6601TS-13F	-5 to 5°	0.1°	14.5 / 370						

6601TS-1F

6601-15

# Calcium Chloride (CaCl2) Specific Gravity/Freezing Point Hydrometer

This hydrometer measures the specific gravity and freezing point of calcium chloride in solution

Calibrated for use at 15°C/60°F

CALCIUM CH	CALCIUM CHLORIDE (CACL2) SPECIFIC GRAVITY/FREEZING POINT HYDROMETER					
Cat. No.	Range	Subdivisions	Approx. Length (in/mm)			
6611.0	1.000 to 1.280 Specific Gravity	0.002	10 / 205	6611-3		
6611-3 -	+30 to -40°F Freezing Point	5°	12/305			

### **Sodium Chloride Hydrometers**

#### Measure the percentage of sodium chloride in solution with these hydrometers

Model 6611-1 measures the % saturation of sodium chloride in solution; Model 6611-2 measures the % by weight of sodium chloride in solution.

• Calibrated for use at 15°C/60°F

SODIUM CHI	LORIDE HYDROMETERS	*			
Cat. No.	Range	Subdivisions	Approx. Length (in/mm)		
6611-1	0 to 100% saturation	1.0%	12 / 305	6611-1	1
6611-2	0 to 26.5% by weight	0.5%	12/305		

1

**Specific Gravity,** also known as relative density, is the ratio of the mass of a liquid to the mass of an equal volume of distilled water.

### **Ultra-Precision Specific Gravity Hydrometers**

Featuring smaller ranges and higher resolution, with subdivisions of 0.0005

Calibrated for use at 15°C/60°F

Galibra								
ULTRA-PREC	ILTRA-PRECISION SPECIFIC GRAVITY HYDROMETERS							
Cat. No.	Specific Gravity Range	Subdivisions	Approx. Length (in/mm)					
6602-2	0.700 to 0.770	0.0005	13 / 330					
6602-3	0.760 to 0.830	0.0005	13 / 330					
6602-4	0.820 to 0.890	0.0005	13 / 330					
6602-5	0.880 to 0.950	0.0005	13 / 330					
6602-6	0.940 to 1.010	0.0005	13 / 330					
6602-7	1.000 to 1.070	0.0005	13 / 330					
6602-8	1.060 to 1.130	0.0005	13 / 330					
6602-9	1.120 to 1.190	0.0005	13 / 330					
6602-10	1.180 to 1.250	0.0005	13 / 330					
6602-11	1.240 to 1.310	0.0005	13 / 330					
6602-12	1.300 to 1.370	0.0005	13 / 330					
6602-13	1.360 to 1.430	0.0005	13 / 330					
6602-14	1.420 to 1.490	0.0005	13 / 330					
6602-15	1.480 to 1.550	0.0005	13 / 330					
6602-19	1.720 to 1.790	0.0005	13 / 330					



### **Precision Specific Gravity Hydrometers**

Precision Specific Gravity Hydrometers feature subdivisions from 0.001 to 0.01

• Calibrated for use at 15°C/60°F

PRECISION S	PRECISION SPECIFIC GRAVITY HYDROMETERS						
Cat. No.	Specific Gravity Range	Subdivisions	Approx. Length (in/mm)				
6603-10	0.700 to 0.810	0.001	12 / 305				
6603-11	0.800 to 0.910	0.001	12 / 305				
6603-12	0.900 to 1.000	0.001	12 / 305				
6603-1	1.000 to 1.220	0.002	12 / 305				
6603-2	1.200 to 1.420	0.002	12 / 305				
6603-3	1.400 to 1.620	0.002	12 / 305				
6603-4	1.600 to 1.820	0.002	12 / 305				
6603-5	1.800 to 2.020	0.002	12 / 305				
6603-21	2.200 to 2.420	0.002	12 / 305				
6603-22	2.400 to 2.620	0.002	12 / 305				
6603-13	0.650 to 1.000	0.005	12 / 305				
6603-6	1.000 to 1.600	0.005	12 / 305				
6603-7	1.000 to 2.000	0.010	12 / 305				
6603-8	2.000 to 3.000	0.010	12 / 305				
6603-9	3.000 to 4.000	0.010	12 / 305				

### **Precision Specific Gravity Hydrometers with Thermometer**

No need for a separate thermometer to check liquid temperature

- These Hydrometers feature an internal thermometer for calculating temperature corrections
- Calibrated for use at 15°C/60°F

PRECISION SI		140 150 140 130						
Cat. No.	Specific Gravity Range	Subdivisions	Approx. Length (in/mm)	Thermometer Range	Thermometer Subdivision	Thermometer Liquid Fill		120 110 100 90
6602TS-7	1.000 to 1.070	0.001	15 / 385				6602TS-7	80 70
6602TS-8	1.060 to 1.130	0.001	15 / 385	20 to 150°F	2°F	SafetyBLUE		40 50
6603TS-1	1.000 to 1.220	0.002	12 / 305					20

# **Precision Short-Form Specific Gravity Hydrometers**

Short-Form Hydrometers use less volume of the test liquid, while still offering 0.001 resolution

• Calibrated for use at 15°C/60°F

PRECISION SHORT-FORM SPECIFIC GRAVITY HYDROMETERS								
Cat. No.	Specific Gravity Range	Subdivisions	Approx. Length (in/mm)					
6602-4S	0.820 to 0.890	0.001	6.5 / 165					
6602-5S	0.880 to 0.950	0.001	6.5 / 165					
6602-6S	0.940 to 1.010	0.001	6.5 / 165					
6602-7S	1.000 to 1.070	0.001	6.5 / 165					
6602-8S	1.060 to 1.130	0.001	6.5 / 165					
6602-9S	1.120 to 1.190	0.001	6.5 / 165					
6602-10S	1.180 to 1.250	0.001	6.5 / 165					

6602-7S

8,12(0) 8, 8, 8, 8, 11(

6603-1

### **ASTM Specific Gravity Hydrometers**

#### Manufactured to the specifications of the American Society for Testing and Materials (ASTM)

Select the hydrometer that you need by matching the ASTM number shown in the table.

• Calibrated for use at 15°C/60°F

ASTM SP	TM SPECIFIC GRAVITY HYDROMETERS			ASTM SPECIFIC GRAVITY HYDROMETERS						
Cat. No.	ASTM No.	Specific Gravity Range	Subdivisions	Approx. Length (in/mm)		Cat. No.	ASTM No.	Specific Gravity Range	Subdivisions	Approx. Length (in/ mm)
67111H	111H	1.000 to 1.050	0.0005	13 / 330		67125H	125H	1.000 to 1.050	0.001	12 / 260
67112H	112H	1.050 to 1.100	0.0005	13 / 330		67126H	126H	1.050 to 1.100	0.001	12 / 260
67113H	113H	1.100 to 1.150	0.0005	13/330		67127H	127H	1.100 to 1.150	0.001	12 / 260
67114H	114H	1.150 to 1.200	0.0005	13/330		67128H	128H	1.150 to 1.200	0.001	12 / 260
67115H	115H	1.200 to 1.250	0.0005	13 / 330		67129H	129H	1.200 to 1.250	0.001	12 / 260
67116H	116H	1.250 to 1.300	0.0005	13/330		67130H	130H	1.250 to 1.300	0.001	12 / 260
67117H	117H	1.300 to 1.350	0.0005	13 / 330		67131H	131H	1.300 to 1.350	0.001	12 / 260
67118H	118H	1.350 to 1.400	0.0005	13/330		67132H	132H	1.350 to 1.400	0.001	12 / 260
67119H	119H	1.400 to 1.450	0.0005	13/330		67133H	133H	1.400 to 1.450	0.001	12 / 260
67120H	120H	1.450 to 1.500	0.0005	13/330		67134H	134H	1.450 to 1.500	0.001	12/260

# Wide-Range Specific Gravity Hydrometers

Ideal when you aren't sure of the approximate value of your liquid

- Also use for multiple liquids with different specific gravity within the range of the hydrometer, allowing multiple uses with one unit
- Calibrated for use at 15°C/60°F

WIDE-RANGE SPECIFIC GRAVITY HYDROMETERS								
Cat. No.	Specific Gravity Range	Subdivisions	Approx. Length (in/mm)					
6604-1	1.000 to 1.250	0.005	6.5 / 165					
6604-2	1.200 to 1.450	0.005	6.5 / 165					
6604-3	1.400 to 1.650	0.005	6.5 / 165					
6604-4	1.600 to 1.850	0.005	6.5 / 165					
6604-5	1.800 to 2.050	0.005	6.5 / 165					

## **Universal Specific Gravity Hydrometer**

#### Ideal when you aren't sure of the approximate value of your liquid

This dual-scale model measures specific gravity and Baume. Also use for multiple liquids with different readings, allowing multiple uses with one hydrometer.

• Calibrated for use at 15°C/60°F

UNIVERS	UNIVERSAL SPECIFIC GRAVITY HYDROMETER								
Cat. No.	Specific Gravity Range	Subdivisions	Baume Range	Subdivisions	Approx. Length (in/mm)				
6605-1	0.700 to 2.000	0.005 (from 0.7 to 1.0); 0.01 (from 1.0 to 2.0)		1°	15 / 380				



6605-1



### **Dual Scale Specific Gravity / Baume Hydrometers**

#### Dual-Scale Hydrometers have two scales on the stem, covering different applications in one unit

The Baume scale has two different scales: one for liquids heavier than water and one for liquids lighter than water. See table below for Baume ranges.

• Calibrated for use at 15°C/60°F

DUAL SCALE	JAL SCALE SPECIFIC GRAVITY / BAUME HYDROMETERS							
Cat. No.	Specific Gravity Range	Baume Range	Subdivisions	Approx. Length (in/mm)				
6603DS-1	1.000 to 1.220	0 to 26° (Heavy)	0.002 / 0.2°	12/305				
6603DS-1S	1.000 to 1.225	0 to 26° (Heavy)	0.005 / 1°	12/305				
6603DS-2	1.200 to 1.420	24 to 42° (Heavy)	0.002 / 0.2°	12/305				
6603DS-2S	1.200 to 1.425	24 to 42° (Heavy)	0.005 / 1°	12/305				
6603DS-3	1.400 to 1.620	42 to 55° (Heavy)	0.002 / 0.2°	12/305				
6603DS-4	1.600 to 1.820	55 to 65° (Heavy)	0.002 / 0.2°	12/305				
6603DS-5	1.800 to 2.020	64 to 72° (Heavy)	0.002 / 0.2°	12/305				
6603DS-6	1.000 to 1.450	0 to 45° (Heavy)	0.005 / 0.5°	12/305				
6603DS-6S	1.000 to 1.400	0 to 41° (Heavy)	0.010 / 1°	12/305				
6603DS-7	1.000 to 2.000	0 to 72° (Heavy)	0.010 / 1°	12/305				
6603DS-13	0.600 to 1.000	10 to 100° (Light)	0.005 / 1°	12/305				
6603DS-04	0.70 to 1.00	10 to 70° (Light)	0.01 / 1°	6.5 / 165				

# Liquid Petroleum Gas (LPG) Specific Gravity Hydrometer with Thermometer

LPG Hydrometers measure the specific gravity of LPG such as propane, butane, and other light hydrocarbons

Includes an internal thermometer for temperature measurement.

Calibrated for use at 15°C/60°F

LIQUID PETRO	LIQUID PETROLEUM GAS (LPG) SPECIFIC GRAVITY HYDROMETER WITH THERMOMETER							
Cat. No.	Specific Gravity Range	Subdivisions	Approx. Length (in/mm)	Thermometer Range	Thermometer Subdivision	Thermometer Liquid Fill		
67101HTS	0.500 to 0.650	0.001	14.4 / 365	30 to 90°F	1°F	SafetyBLUE		

# Soil ASTM Specific Gravity Hydrometer

Measure the specific gravity of soil samples in suspension

Often used with a sedimentation cylinder for soil analysis.

Calibrated for use at 20°C/68°F

SOIL ASTM SPECIFIC GRAVITY HYDROMETER						
Cat. No.	ASTM No.	Specific Gravity Range	Subdivisions	Approx. Length (in/mm)	074 54	
67151H	151H	0.995 to 1.038	0.001	11 / 280	671511	

# Soil ASTM Soil Colloids Hydrometer

#### Measure the amount of soil colloids in grams of soil samples in suspension

Often used with a sedimentation cylinder for soil analysis.

Calibrated for use at 20°C/68°F

SOIL ASTM SOIL COLLOIDS HYDROMETER							
Cat. No.	ASTM No.	Soil Colloids Range	Subdivisions	Approx. Length (in/mm)			
67152H	152H	-5 to 60g	1.0	11 / 280			



67152H

### **Hydrometer Cases**

#### PVC Hydrometer Cases help protect your hydrometer from damage

Ideal for storing you hydrometer when not is use, these cases feature a foam or felt padded insert and padded bottom and cap.

HYDROMETER CASES							
Cat. No.	Description	Approx. Length (in/mm)					
66CS-8	PVC Case	8.5 / 216					
66CS-8F	PVC Case, short	8.5 / 216					
66CS-13	PVC Case	13.5 / 343					
66CS-13J	PVC Case, wide-body	13.5 / 343					
66CS-16	PVC Case	16.5 / 420					

# **Hydrometer Jars**

#### Made of borosilicate glass, these jars feature a beaded rim and a circular base

Sized properly to eliminate surface tension effects that lead to inaccurate readings.

 Model 21050-1000-L and 21000-1000-L have a graduation line at 1000 mL for precise filling and are used as a sedimentation cylinder

HYDROMETER JARS					
Cat. No.	Description	Maximum Hydrometer Length (mm)			
21050-100	100 mL Hydrometer Jar	185			
21050-250	250 mL Hydrometer Jar	280			
21050-500	500 mL Hydrometer Jar	360			
21050-600	600 mL Hydrometer Jar	390			
21050-1000	1000 mL Hydrometer Jar	400			
21050-1000-L	1000 mL Hydrometer Jar with Graduation Line	400			
21000-1000-L	1000 mL Hydrometer Jar with Graduation Line	385			

#### 21050-1000-L



## Hydrometer Cases & Jars: Reference Guide

HYDROMETER CASES & JARS REFERENCE GUIDE						
Hydrometer Series	Description	Approx.	Uses Case	Uses Jar		
		Length (mm)				
6601-Series	Brix	330	66CS-13	21050-500		
6601TS-Series	Brix w/Thermometer	370	66CS-16	21050-600 or -1000		
6602, 6603-Series	Specific Gravity	305	66CS-13	21050-500		
6603DS-Series	Specific Gravity & Baume	305	66CS-13	21050-500		
6604-Series	Specific Gravity	165	66CS-8F	21050-100		
6605-1	Specific Gravity & Baume: Universal	380	66CS-16	21050-600 or -1000		
6609-Series	Baume: Heavy	305	66CS-13	21050-500		
6611-Series	Salt	305	66CS-13	21050-500		
6612-1	Alcohol: Tralle and Proof	305	66CS-13	21050-500		
6612-2TS	Alcohol: Tralle and Proof w/Thermometer	355	66CS-16	21050-600 or -1000		
6613-Series	Alcohol: Proof, IRS	230-305	66CS-13J	21050-250 or -500		
6614TS-Series	Plato w/Thermometer	360-380	66CS-16	21050-600 or -1000		
675xHTS-Series	API, ASTM w/Thermometer	380	66CS-16	21050-600 or -1000		
67111H-67134H	Specific Gravity: ASTM	260-330	66CS-13	21050-250 or -500		
67101HTS	LPG w/Thermometer	365	66CS-16	21050-600 or -1000		
6715xH	Specific Gravity or Soil Colloids: ASTM	280	66CS-13J	21050-250 or -500		

