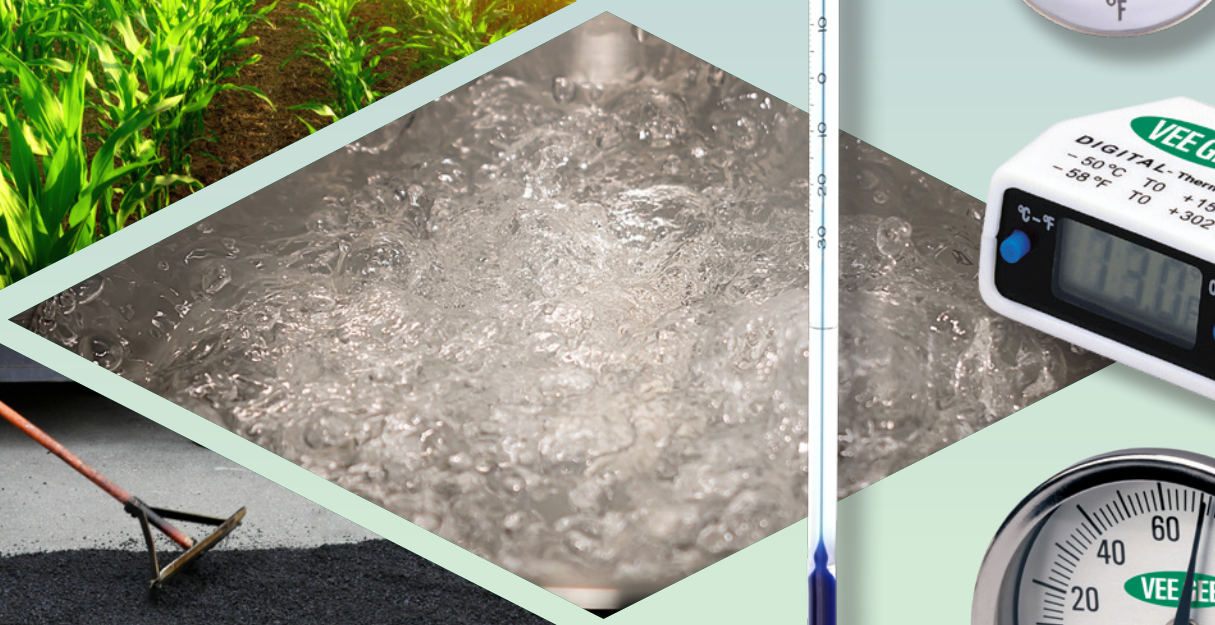
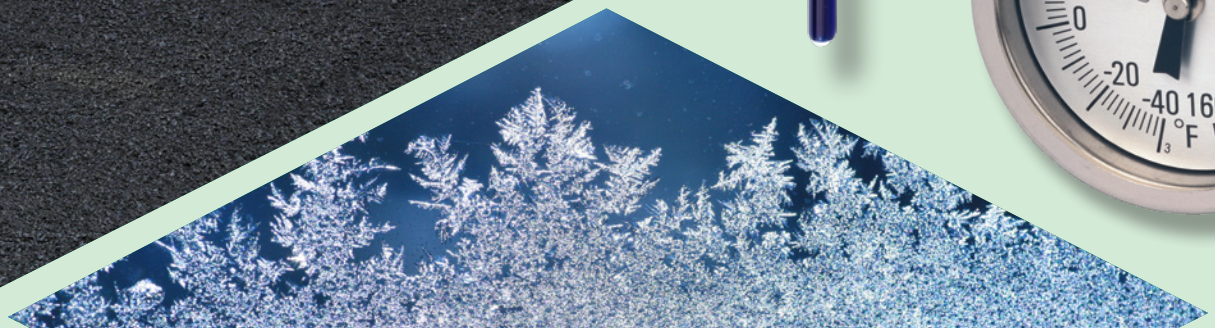
VEE GEE

THERMOMETERS

VEE GEE Scientific

Laboratory Equipment & Supplies





THERMOMETERS

We have a wide range of thermometers to measure and track temperatures for a wide range of applications. Our portfolio includes Dial (Bimetal), Digital and Glass Thermometers options to get the job done.

Dial Thermometers

Dial thermometers don't require batteries, are rugged, and readings can be adjusted with the calibration screw on the back

Indicates temperature through a metal stem with attached circular scale.
Application use varies with dial sizes, stem lengths and temperature ranges.

Dial Thermometers - 1" Diameter

Ideal for many applications including food and beverage quality control, general lab use, and asphalt/concrete testing

- The small stem and face fits nicely into a shirt pocket or holder
- Includes a plastic sheath with pocket clip for storage

81125

DIAL THERMOMETERS - 1" DIAMETER						
Cat. No.	Temperature Range	Subdivisions	Accuracy	Face Diameter (in/mm)	Stem Length (in/mm)	Stem Diameter (in/mm)
81125	25 to 125°F	1°F	±1°F	1 / 25	5 / 127	0.1 / 3.5
81070	-40 to 70°C	1°C	±1°C			
81110	-10 to 110°C	1°C	±1°C			
81550	50 to 550°F	5°F	±5°F			

Dial Thermometers - 1.75" / 2" Diameter

Ideal for many applications including food and beverage quality control, general lab use, and asphalt/concrete testing

- Larger dial size than common pocket thermometers for easier reading
- Features an adjustment screw for field calibration
- Includes a clip for container mounting

82220

DIAL THERMOMETERS - 1.75" / 2" DIAMETER						
Cat. No.	Temperature Range	Subdivisions	Accuracy	Face Diameter (in/mm)	Stem Length (in/mm)	Stem Diameter (in/mm)
82125	25 to 125°F	1°F	±1°F	1.8 / 44.5	8 / 203	0.1 / 3.5
82110	-10 to 110°C	1°C	±1°C	1.8 / 44.5	8 / 203	0.1 / 3.5
82220	0 to 220°F	2°F	±2°F	1.8 / 44.5	8 / 203	0.1 / 3.5
82550	50 to 550°F	5°F	±5°F	1.8 / 44.5	8 / 203	0.1 / 3.5
82550DG	50 to 550°F / 10 to 290°C	2.5°F	±2.5°F	2 / 51	8 / 203	0.1 / 3.5
		5°C	±5°C			

Dial Thermometers - 3" Dial

Ideal for many applications including soil testing, food and beverage quality control, and asphalt/concrete testing

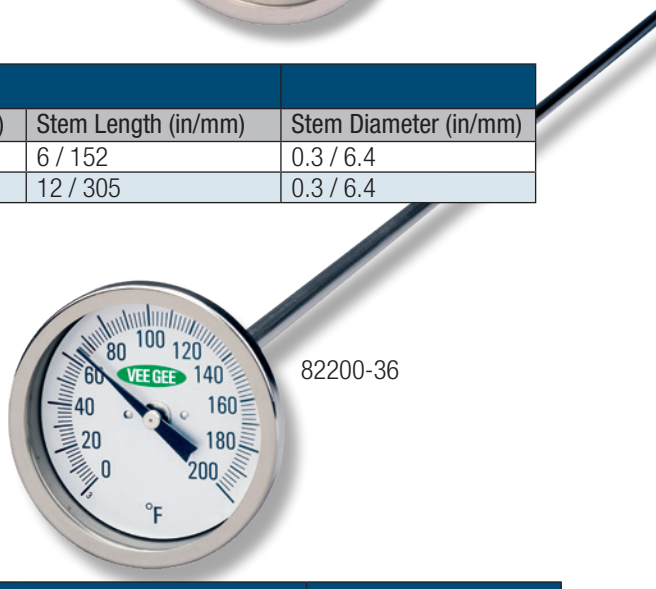
- Constructed of stainless-steel case, bezel, and stem with a glass window
- Case is hermetically sealed to prevent lens fogging
- Includes a 1/2"NPT male thread on the back for threading into a pipeline
- Also features an adjustment screw for field calibration

DIAL THERMOMETERS - 3" DIAMETER						
Cat. No.	Temperature Range	Subdivisions	Accuracy	Face Diameter (in/mm)	Stem Length (in/mm)	Stem Diameter (in/mm)
82160-6	-40 to 160°F	2°F	±2°F	3 / 76	6 / 152	0.3 / 6.4
82160-12	-40 to 160°F	2°F	±2°F	3 / 76	12 / 305	0.3 / 6.4

Long-Stem Dial Thermometers

Ideal for many applications including compost testing, food and beverage quality control, and asphalt/concrete testing

- Constructed of stainless-steel case, bezel, and stem with a glass window
- Case is hermetically sealed to prevent lense fogging
- Includes a 1/2"NPT male thread on the back for threading into a pipeline
- Also features an adjustment screw for field calibration



LONG-STEM DIAL THERMOMETERS						
Cat. No.	Temperature Range	Subdivisions	Accuracy	Face Diameter (in/mm)	Stem Length (in/mm)	Stem Diameter (in/mm)
82200-36	0 to 200°F	2°F	±2°F	3 / 76	36 / 914	0.3 / 7.9
82100-36	0 to 100°C	1°C	±1°C	3 / 76	36 / 914	0.3 / 7.9
82200-48	0 to 200°F	2°F	±2°F	3 / 76	48 / 1220	0.3 / 7.9

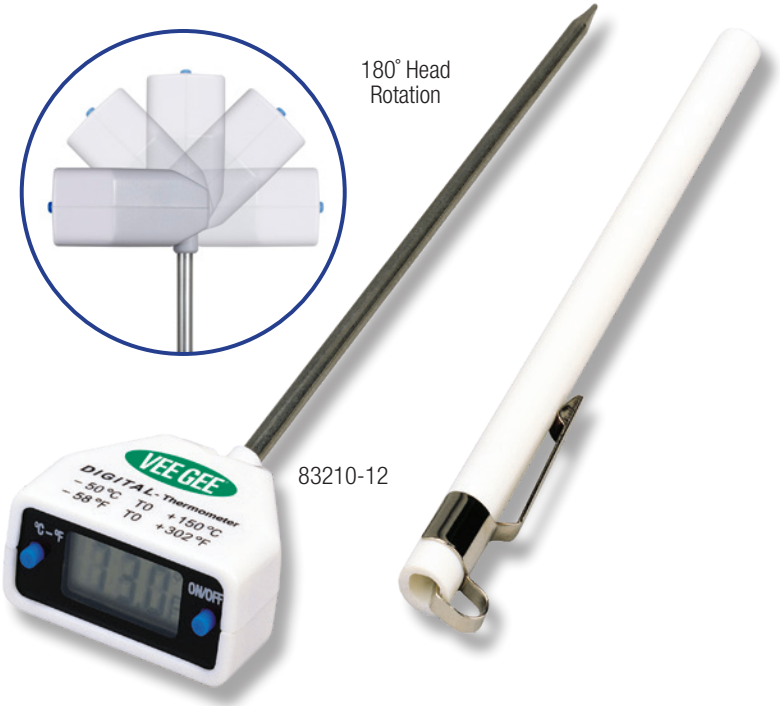
Swivel-Head Digital Thermometers

Digital stem thermometers are ideal for temperature monitoring in essentially any setting and application

- Laboratories - easily monitoring reagents and liquids in test tubes, beakers, and flasks
- Food Processing
- Refrigeration
- Horticulture

Both models feature a dual scale (°F / °C), fast 1-second update time, and a swivel head that can be moved a full 180° for easy reading in any position. Both the ON/OFF and scale selection buttons are located on the face for easy access.

The thermistor sensor stem is stainless steel, 0.138" (3.5 mm) diameter, and includes a protective case featuring a pocket clip. Includes a 1.5V alkaline battery (LR44) and features automatic power-off after 10 minutes of non-use.



SWIVEL-HEAD DIGITAL THERMOMETERS					
Cat. No.	Temperature Range	Resolution	Accuracy	Stem Length (in/mm)	Stem Diameter (in/mm)
83210-12	-58 to 302°F / -50 to 150°C	0.1°	±2.0°F / 1.0°C	12 / 305	0.1 / 3.5
83110	14 to 212°F / -10 to 100°C	0.1°	±1.0°F / 0.5°C	5 / 127	0.1 / 3.5

GLASS THERMOMETERS

VEE GEE thermometers feature a SafetyBLUE fill. This is an organic performance liquid that is bio-degradable and exhibits all the qualities of mercury without the risk of contamination and hazards associated with mercury.

Serialized Glass Thermometers

Precision, serialized thermometers are ideal for use in laboratories, universities, food/ beverage, environmental, wastewater and many other general-purpose applications

- Feature SafetyBLUE fill against a white background for easy reading
- Accuracy is equal to one subdivision

SERIALIZED GLASS THERMOMETERS				
Cat. No.	Temperature Range	Subdivisions	Length (in/mm)	Immersion
80701	-30 to 120°F	2°F	12 / 300	Total
80702	-4 to 230°F	2°F	12 / 300	Total
80703	0 to 300°F	2°F	12 / 300	Total
80706	-35 to 50°C	1°C	12 / 300	Total
80707	-20 to 110°C	1°C	12 / 300	Total
80708	-20 to 150°C	1°C	12 / 300	Total
80901	-30 to 120°F	2°F	12 / 300	Partial
80902	-4 to 230°F	2°F	12 / 300	Partial
80903	0 to 300°F	2°F	12 / 300	Partial
80905	20 to 500°F	2°F	15.4 / 391	Partial
80906	-35 to 50°C	1°C	12 / 300	Partial
80907	-20 to 110°C	1°C	12 / 300	Partial
80908	-20 to 150°C	1°C	12 / 300	Partial
80910	-10 to 250°F	2°F	15.4 / 391	Partial

Serialized Encapsulated Glass Thermometers

Encapsulation protects you from broken glass and liquid

- Feature FEP encapsulation; in the event of breakage the FEP coating contains the broken glass and liquid, preventing injury or contamination
- Feature SafetyBLUE fill against a white background for easy reading
- Accuracy is equal to one subdivision

SERIALIZED ENCAPSULATED GLASS THERMOMETERS				
Cat. No.	Temperature Range	Subdivisions	Length (in/mm)	Immersion
80701E	-30 to 120°F	2°F	12 / 300	Total
80702E	-4 to 230°F	2°F	12 / 300	Total
80703E	0 to 300°F	2°F	12 / 300	Total
80704E	30 to 220°F	2°F	15.4 / 391	Total
80706E	-35 to 50°C	1°C	12 / 300	Total
80707E	-20 to 110°C	1°C	12 / 300	Total
80708E	-20 to 150°C	1°C	12 / 300	Total
80901E	-30 to 120°F	2°F	12 / 300	Partial
80902E	-4 to 230°F	2°F	12 / 300	Partial
80903E	0 to 300°F	2°F	12 / 300	Partial
80904E	30 to 220°F	2°F	15.4 / 391	Partial
80906E	-35 to 50°C	1°C	12 / 300	Partial
80907E	-20 to 110°C	1°C	12 / 300	Partial
80908E	-20 to 150°C	1°C	12 / 300	Partial

Serialized Armored Glass Thermometers

Armor protects the thermometer from rough handling and shock during use

- Includes nickel-plated brass armor
- Feature SafetyBLUE fill against a white background for easy reading
- Accuracy is equal to one subdivision

SERIALIZED ARMORED GLASS THERMOMETERS				
Cat. No.	Temperature Range	Subdivisions	Length (in/mm)	Immersion
80701-A	-30 to 120°F	2°F	12 / 300	Total
80702-A	-4 to 230°F	2°F	12 / 300	Total
80703-A	0 to 300°F	2°F	12 / 300	Total
80706-A	-35 to 50°C	1°C	12 / 300	Total
80707-A	-20 to 110°C	1°C	12 / 300	Total
80708-A	-20 to 150°C	1°C	12 / 300	Total
80901-A	-30 to 120°F	2°F	12 / 300	Partial
80902-A	-4 to 230°F	2°F	12 / 300	Partial
80903-A	0 to 300°F	2°F	12 / 300	Partial
80905-A	20 to 500°F	2°F	15.4 / 391	Partial
80906-A	-35 to 50°C	1°C	12 / 300	Partial
80907-A	-20 to 110°C	1°C	12 / 300	Partial
80908-A	-20 to 150°C	1°C	12 / 300	Partial
80910-A	-10 to 250°F	2°F	15.4 / 391	Partial

Armored Encapsulated Glass Thermometers

Armor protects the thermometer and encapsulation protects you

- Includes FEP encapsulation and nickel-plated brass armor
- In the event of breakage, the FEP coating contains the broken glass and liquid fill, preventing injury or contamination. The armor protects the thermometer from rough handling and shock during use
- Feature SafetyBLUE fill against a white background for easy reading
- Accuracy is equal to one subdivision

ARMORED ENCAPSULATED GLASS THERMOMETERS				
Cat. No.	Temperature Range	Subdivisions	Length (in/mm)	Immersion
80701E-A	-30 to 120°F	2°F	12 / 300	Total
80702E-A	-4 to 230°F	2°F	12 / 300	Total
80703E-A	0 to 300°F	2°F	12 / 300	Total
80704E-A	30 to 220°F	2°F	15.4 / 391	Total
80706E-A	-35 to 50°C	1°C	12 / 300	Total
80707E-A	-20 to 110°C	1°C	12 / 300	Total
80708E-A	-20 to 150°C	1°C	12 / 300	Total
80901E-A	-30 to 120°F	2°F	12 / 300	Partial
80902E-A	-4 to 230°F	2°F	12 / 300	Partial
80903E-A	0 to 300°F	2°F	12 / 300	Partial
80904E-A	30 to 220°F	2°F	15.4 / 391	Partial
80906E-A	-35 to 50°C	1°C	12 / 300	Partial
80907E-A	-20 to 110°C	1°C	12 / 300	Partial
80908E-A	-20 to 150°C	1°C	12 / 300	Partial

Armor Cases for Glass Thermometers

Nickel-plated brass armor cases protect liquid-in-glass thermometers from rough handling and shock during use

- Armors feature a threaded screw cap with ring top for suspension where necessary

ARMOR CASES FOR GLASS THERMOMETERS			
Cat. No.	For Thermometer Length (in/mm)	Outside Diameter (in/mm)	Inside Diameter (in/mm)
83025A	12 / 305	0.4 / 9.5	0.3 / 7.5
83025N	15.5 / 393	0.4 / 9.5	0.3 / 7.5

Glass Thermometers: *Be in the know….*

Column Separation

The largest single cause for failure of liquid-in-glass thermometers in the lab is due to column separation. This can occur in transit or in the lab.

The simplest and safest method to reunite a separated column is to force the liquid down the capillary tube by using a centrifuge, if one is available with a cup deep enough to ensure that the centrifugal force is below the liquid column.

- Carefully insert the thermometer, bulb down, into the centrifuge. Place some cotton wadding at the bottom of the cup to prevent any damage to the bulb. Turn on the centrifuge - in just a few seconds all the liquid will be forced past the separation.

- If the cup is not deep enough and all the centrifugal force is not below the column, the column will split, forcing part of the liquid down. The remainder will be forced up, filling the expansion chamber.

- If a centrifuge is not available, the column can be reunited by holding the thermometer in an upright position and gingerly tapping the stem above the separation against the palm of your hand. As you gently tap the thermometer, observe the liquid above the separation until it breaks away from the wall of the capillary and runs down to join the main column.

Immersion Types

Thermometers are one of the most important instruments used in the laboratory and are a relatively inexpensive means of reliably measuring temperature, provided they are properly used and not abused.

It is essential that the instruments be used in the manner prescribed if true temperature are to be ascertained. The following are some terms that should be understood and adhered to when true temperatures are to be obtained:

Total immersion - such a thermometer is designed to indicate temperatures correctly when the bulb and the entire liquid column are exposed to the temperature being measured, except for a minimal length emergent to be visible. Therefore, the thermometer is immersed into the medium up to the point of reading.

Partial Immersion - such a thermometer has a line around it at the immersion distance from the bottom. The thermometer indicates correctly when the bulb and liquid column to that line are exposed to the temperature being measured and the emergent stem is at ambient temperature. Therefore, the thermometer is immersed only up to the immersion line.

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