

3" Lower Connection

Miljoco lower connected bimetal thermometers are ideal for applications requiring a compact dial and fixed lower connection. These tamper-proof instruments are an excellent choice when an external recalibrator or pointer adjustment are not required. The hermetically-sealed, stainless steel case prevents moisture from entering into the instrument and fogging the lens, thus allowing the operator to obtain clear, accurate readings.

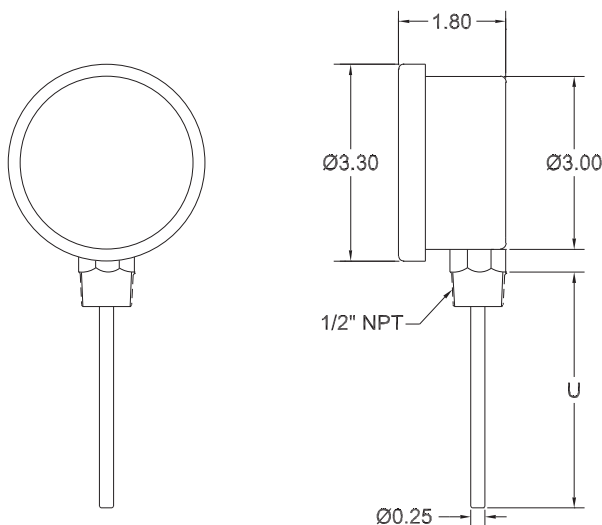
General Specifications

- CASE & RING:** Hermetically sealed 300 series stainless steel.
LENS: Double strength glass standard, with polycarbonate (250°F maximum range) optional.
DIAL: Anti-parallax, aluminum with white finish and black markings.
POINTER: Black.
RECALIBRATOR: None.
CONNECTION: 300 series stainless steel, 1/2" NPT.
STEM: 300 series stainless steel, Ø 0.250".
ACCURACY: ±1% full range (ASME B40.3 Grade A).
AMBIENT TEMPERATURE: -40 to 250°F (-40 to 120°C).



B3099L

Dimensions (in.)



Ranges

Range Code	Range	°F Scale		°C Scale	
		Fig.	Div.	Fig.	Div.
39	-40 to 160°F / -40 to 70°C	20°	2°	10°	1°
43	25 to 125°F / -5 to 50°C	10°	1°	5°	.5°
54	0 to 250°F / -20 to 120°C	50°	2°	20°	2°
63	50 to 300°F / 10 to 150°C	50°	2°	20°	2°
94	50 to 500°F / 10 to 260°C	50°	2°	20°	2°
65	150 to 750°F / 50 to 400°C	100°	10°	50°	5°
59	200 to 1000°F / 100 to 530°C	100°	10°	50°	5°

Other ranges may be available - consult factory.

Stem Lengths

Stem Length "U" (in.)					
Code	2	4	6	9	12
Dim.	2.50	4.00	6.00	9.00	12.00

Other stem lengths available - consult factory.

To Order

B 3 0 9 9 L **9 4** - **2**
 Model Number Range Code Stem Length

Options

- Polycarbonate Lens (Model B3098L)



3" or 5" Rear Connection

Miljoco rear connected bimetal thermometers are economic and ideal for applications that can accept a fixed back connection. These instruments are provided with an external recalibrator on the rear of the case, for easy temperature adjustment. The hermetically-sealed, stainless steel case prevents moisture from entering into the instrument and fogging the lens, thus allowing the operator to obtain clear, accurate readings.

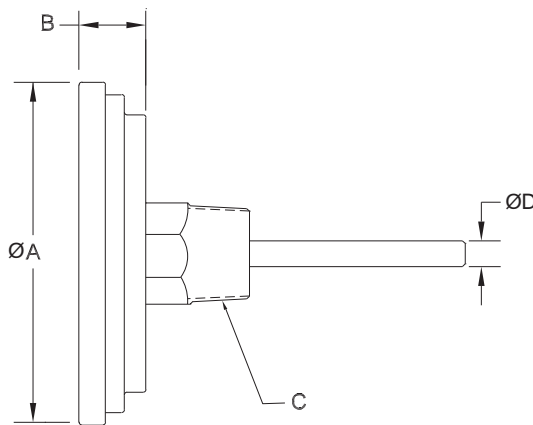
General Specifications

- CASE & RING:** Hermetically sealed 300 series stainless steel.
- LENS:** Double strength glass standard, with polycarbonate (250°F maximum range) optional.
- DIAL:** Aluminum with white finish and black markings.
- POINTER:** Black.
- RECALIBRATOR:** Furnished standard with external recalibrator on rear of case.
- CONNECTION:** 300 series stainless steel, 1/2" NPT.
- STEM:** 300 series stainless steel, Ø 0.250".
- ACCURACY:** ±1% full range (ASME B40.3 Grade A).
- AMBIENT TEMPERATURE:** -40 to 250°F (-40 to 120°C).



B3099

Models & Dimensions (in.)



Model	Dial Size	Lens	A	B	C	D
B3099	3"	Glass	3.18	0.625	½" NPT	0.250
B3098	3"	Polycarb.	3.18	0.625	½" NPT	0.250
B5099	5"	Glass	5.14	0.685	½" NPT	0.250
B5098	5"	Polycarb.	5.14	0.685	½" NPT	0.250

Ranges

Range Code	Range	°F Scale		°C Scale	
		Fig.	Div.	Fig.	Div.
39	-40 to 160°F / -40 to 70°C	20°	2°	10°	1°
43	25 to 125°F / -5 to 50°C	10°	1°	5°	.5°
54	0 to 250°F / -20 to 120°C	50°	2°	20°	2°
63	50 to 300°F / 10 to 150°C	50°	2°	20°	2°
94	50 to 500°F / 10 to 260°C	50°	2°	20°	2°
65	150 to 750°F / 50 to 400°C	100°	10°	50°	5°
59	200 to 1000°F / 100 to 530°C	100°	10°	50°	5°

Other ranges may be available - consult factory.

Stem Lengths

Stem Length "U" (in.)					
Code	2	4	6	9	12
Dim.	2.50	4.00	6.00	9.00	12.00

Other stem lengths available - consult factory.

To Order

B 3 0 9 9 **5 4** - **4**
 Model Number Range Stem
 Code Length

Options

- Polycarbonate Lens (Model B3098, B5098)



3" Adjustable Angle

The Miljoco CD3099A is operated by solar power with an auxiliary battery back-up to allow the display to function continuously, even in low light levels. It has a bright and easy to read LCD display. This thermometer has a sealed case and can be switched in the field from °F to °C through the access port on the rear of the case. It is an excellent choice for a variety of applications, including industrial processing, food processing and commercial HVAC.

General Specifications

CASE & RING: Hermetically sealed 300 series stainless steel.

LENS: Polycarbonate.

STEM: 300 series stainless steel, Ø 0.250".

CONNECTION: 300 series stainless steel, 1/2" NPT.

SENSOR: Glass passivated thermistor.

RANGE: -58 to 302°F (-50 to 150°C), field-switchable between °F & °C.

DISPLAY: LCD, black character, 0.50" high with gray background.

ILLUMINANCE: Solar collector, 100 lux, with battery backup for continuous service.

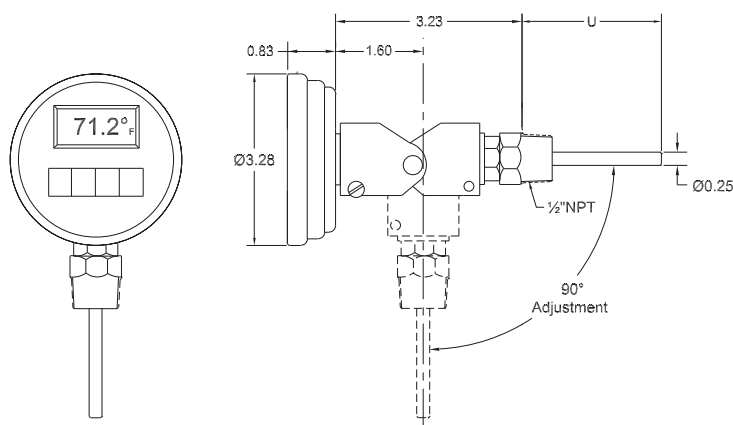
UPDATE TIME: 10 seconds.

ACCURACY: Greater value of 2°F (1°C) or 1% of reading.

RESOLUTION: 0.1°F or °C.

AMBIENT TEMPERATURE: -40 to 250°F (-40 to 120°C).

Dimensions (in.)



Range

Range Code	Range
85	-58 to 302°F / -50 to 150°C

Other ranges may be available - consult factory.

Stem Lengths

Code	Stem Length "U" (in.)			
	4	6	9	12
Dim.	4.00	6.00	9.00	12.00

Other stem lengths available - consult factory.

To Order

CD3098A **85** - **6**
 Model Number Range Code Stem Length



2" Rear Connection

Miljoco 2" Rear Connected Bimetal Thermometers feature a compact design and economical price. These tamper-proof instruments are an excellent choice when an external recalibrator or pointer adjustment are not required. The hermetically-sealed, stainless steel case prevents moisture from entering into the instrument and fogging the lens, thus allowing the operator to obtain clear, accurate readings.

General Specifications

- CASE & RING:** Hermetically sealed 300 series stainless steel.
LENS: Double strength glass standard, with polycarbonate (250°F maximum range) optional.
DIAL: Aluminum with white finish and black markings.
POINTER: Black.
RECALIBRATOR: None.
CONNECTION: 300 series stainless steel, 1/4" NPT.
STEM: 300 series stainless steel, Ø 0.250".
ACCURACY: ±1% full range (ASME B40.3 Grade A).
AMBIENT TEMPERATURE: -40 to 250°F (-40 to 120°C).

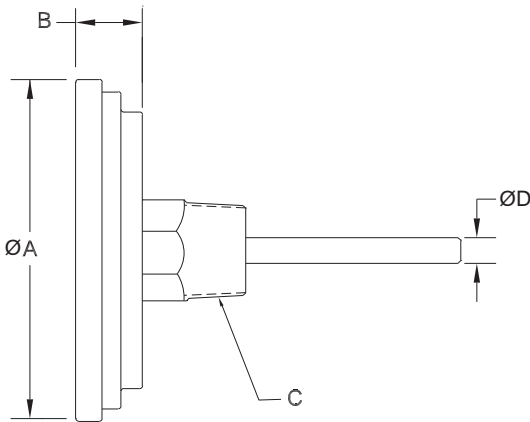
NSF® Service

Many Miljoco thermometers are listed by NSF® for use in the food service industry. Consult factory for available models and ranges.



B2098

Models & Dimensions (in.)



Model	Dial Size	Lens	A	B	C	D
B2099	2"	Glass	2.15	0.675	1/4" NPT	0.250
B2098	2"	Polycarb.	2.15	0.675	1/4" NPT	0.250

Ranges

Range Code	Range	°F Scale		°C Scale	
		Fig.	Div.	Fig.	Div.
39	-40 to 160°F / -40 to 70°C	20°	2°	10°	1°
43	25 to 125°F / -5 to 50°C	10°	1°	5°	.5°
54	0 to 250°F / -20 to 120°C	50°	2°	20°	2°
63	50 to 300°F / 10 to 150°C	50°	2°	20°	2°
94	50 to 500°F / 10 to 260°C	50°	2°	20°	2°
65	150 to 750°F / 50 to 400°C	100°	10°	50°	5°
59	200 to 1000°F / 100 to 530°C	100°	10°	50°	5°

Other ranges may be available - consult factory.

Stem Lengths

Stem Length "U" (in.)					
Code	2	4	6	9	12
Dim.	2.50	4.00	6.00	9.00	12.00

Other stem lengths available - consult factory.

To Order

B 2 0 9 8 **5 4** - **2**
 Model Number Range Code Stem Length

Options

- Glass Lens (Model B2099)



Bimetal Type - 1" Dial - 5" Stem

Miljoco Pocket Test Thermometers are ideal for use as test instruments in the HVAC, plumbing, refrigeration, and appliance repair industries. These thermometers are furnished with a durable plastic carrying case and pocket clip. They are also available with either a domed or magnifying lens and can be recalibrated easily in the field. Various ranges are NSF® listed for use in the food service industry.

General Specifications

CASE: Hermetically sealed 300 series stainless steel.

LENS: Acrylic.

DIAL: Aluminum, white finished with black markings.

POINTER: Red.

RECALIBRATOR: External adjusting hex nut or recalibrator lug on rear of case.

STEM: 300 series stainless steel, Ø 0.150".

ACCURACY: ±2% full range.

AMBIENT TEMPERATURE: -40 to 140°F (-40 to 60°C).



Models

Model	Range	Dial Size	Stem Length	Lens Type	Adjustment Type
B1098M90C-5.0	-40 to 160°F	1"	5"	Magnifying	Recalibrator Lug
B1098M82C-5.0	0 to 220°F*	1"	5"	Magnifying	Recalibrator Lug
B1098M43C-5.0	25 to 125°F*	1"	5"	Magnifying	Recalibrator Lug
B1098M95C-5.0	50 to 500°F	1"	5"	Magnifying	Recalibrator Lug
B1098M28C-5.0	0 to 100°C	1"	5"	Magnifying	Recalibrator Lug
B1098M42C-5.0	-40 to 70°C	1"	5"	Magnifying	Recalibrator Lug
B1098D90A-5.0	-40 to 160°F	1"	5"	Domed	Hex Nut
B1098D82A-5.0	0 to 220°F*	1"	5"	Domed	Hex Nut
B1098D43A-5.0	25 to 125°F*	1"	5"	Domed	Hex Nut
B1098D95A-5.0	50 to 500°F	1"	5"	Domed	Hex Nut
B1098D28A-5.0	0 to 100°C	1"	5"	Domed	Hex Nut
B1098D42A-5.0	-40 to 70°C	1"	5"	Domed	Hex Nut

*NSF® listed range.



Product Selection Considerations

When selecting a dial thermometer, consideration must be given to the following factors:

Warning

Selection of the appropriate instrument is the sole responsibility of the user. Improper application or installation may cause product failure, resulting in personal injury or property damage. Consult ASME B40.200 for further information.

Measuring Range

Being vapor actuated, Miljoco Dial Thermometers feature a progressively graduated scale, and therefore, the range should be selected so that the working temperature falls into the upper two-thirds of the range. A wide array of ranges from -40°F to 450°F are available to suit almost any application requirement.

Process Fluid

The composition of the process fluid should be considered to ensure that it is compatible with the wetted parts of the thermometer and/or thermowell. All thermometers specified for use with corrosive or caustic fluids, or those contained under pressure, should be installed in a thermowell of the appropriate material to protect the stem of the instrument.

Ambient Conditions

The ambient temperature should be considered so that the materials of construction are suited to the application. Optional sealed cases, lens o-rings, and/or weepholes should be considered to help prevent fogging of the lens when humidity or moisture are concern.

Installation Requirements

The mounting style required (direct, surface or panel) and outlet location (bottom or back) should be considered to ensure the thermometer will suit the application requirements. A variety of tube systems and connections are offered, however, other specialized types may be available – consult factory. CAUTION: The sensing bulb and case should be installed at a similar height to maintain the designed accuracy of the thermometer. If the sensing bulb must be mounted at a different height than the case (especially over long capillary tubing runs), please advise the factory when ordering.

Accuracy Requirements

The accuracy requirement of the application should be considered to ensure safety and efficiency for the operators and users of the process system.

NSF® Service

Many Miljoco Dial Thermometers are listed by NSF® for use in the food service industry. When this listing requirement is specified, a smooth, nickel-plated copper sensing bulb and capillary tubing are furnished, along with dial face imprinting or case labeling. Consult factory for available models, ranges and configurations.

Specification Selections

Miljoco Dial Thermometers are available in a wide variety of configurations to suit almost any application. For assistance with determining the correct product to suit your application, please contact us with the following information:

Dial Size: 1½" 2" 2½" 3½" 4" 4½" 6" 12"

Temperature Range: _____ **Scale:** Dual °F/°C °F only °C only

Mounting Method: Front Flange U-Clamp Rear Flange Adjustable Direct Mount

Connection: Plain Bulb 1/2" NPT Union 1/2" NPT Union with Extension

Capillary Material: Tin Plated Copper Smooth Copper Bronze Braided

Smooth Stainless Steel Stainless Steel Armor

Case Material: Stainless Steel Aluminum Plastic Other _____

Lens: Glass Press-In Plastic Threaded Plastic Other _____

Mounting Method: Lower Back Rear Flange Front Flange U-Clamp

Liquid Fill: None-Dry Glycerine Silicone Oil Other _____

Additional Requirements: _____



Flush Mount - Front Flange Case - 2", 2½", 3½" Dial Size

Miljoco vapor dial thermometers are manufactured to the highest standards for a wide range of uses and may be fitted into almost any temperature reading application. These instruments are ideal for obtaining readings from remote locations. Being vapor actuated, they are not subject to any ambient temperature variations along the tube system and give excellent readings both above and below ambient. Vapor instruments have progressive graduations and are best read in the upper two-thirds of the range. Many ranges are available between -40°F and 450°F. Front flange thermometers are designed to be installed in a panel using three screws from the front.

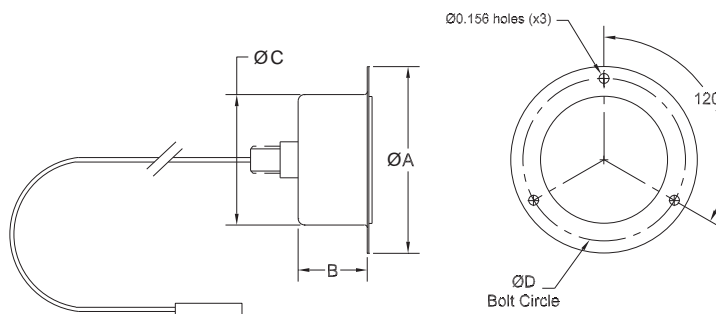
NSF® Service
 Many Miljoco thermometers are listed by NSF® for use in the food service industry. Consult factory for available models and ranges.



General Specifications

- CASE:** 300 series stainless steel.
- LENS:** Polycarbonate, press-in (2" only) or threaded.
- DIAL:** Aluminum with white finish and black markings.
- POINTER:** Black, adjustable.
- MOVEMENT:** Brass with precision gearing.
- BOURDON TUBE:** Phosphor bronze.
- ACCURACY:** ±One scale division.
- TUBE SYSTEM:**
 - CAPILLARY TUBING: 60" tin-plated copper (std.).
 - CONNECTION: Plain.
 - SENSING BULB: Nickel-plated copper bulb, Ø 7/16".
- Other tube systems and capillary lengths available - see page 62.*
- AMBIENT TEMPERATURE:** -40 to 140°F (-40 to 60°C).

Models & Dimensions (in.)



To Order

Select a **Model Number**, then see **Page 64** for temperature range and tube system selections.

Model	Dial Size	Case Mat'l	Outlet	Lens	A	B	C	D
V2036	2"	SS	Rear	Press-in	2.94	1.09	2.06	2.56
V2036P	2"	ABS	Rear	Press-in	2.94	1.09	2.06	2.56
V2037	2"	SS	Rear	Threaded	2.94	1.09	2.06	2.56
V2036L	2"	SS	Lower	Press-in	2.94	1.09	2.06	2.56
V2037L	2"	SS	Lower	Threaded	2.94	1.09	2.06	2.56
V2537	2½"	SS	Rear	Threaded	3.48	1.09	2.56	3.20
V2537L	2½"	SS	Lower	Threaded	3.48	1.09	2.56	3.20
V3537	3½"	SS	Rear	Threaded	4.30	1.09	3.50	4.00
V3537L	3½"	SS	Lower	Threaded	4.30	1.09	3.50	4.00

Options

- Tubing Strain Relief
- Silicone Dampening
- Over Range Protection
- Case Sealant
- Weephole
- Lens O-Ring



Flush Mount - U-Clamp Case - 2", 2½", 3½" Dial Size

Miljoco vapor dial thermometers are manufactured to the highest standards for a wide range of uses and may be fitted into almost any temperature reading application. These instruments are ideal for obtaining readings from remote locations. Being vapor actuated, they are not subject to any ambient temperature variations along the tube system and give excellent readings both above and below ambient. Vapor instruments have progressive graduations and are best read in the upper two-thirds of the range. Many ranges are available between -40°F and 450°F. This series is designed for flush panel-mounting and is furnished with a u-clamp for this service.

General Specifications

CASE: 300 series stainless steel or ABS plastic in gray. Other colors available.

U-CLAMP: CRS zinc plated.

LENS: Polycarbonate, press-in or threaded.

DIAL: Aluminum with white finish and black markings.

POINTER: Black, adjustable.

MOVEMENT: Brass with precision gearing.

BOURDON TUBE: Phosphor bronze.

ACCURACY: ±One scale division.

TUBE SYSTEM:

CAPILLARY TUBING: 60" tin-plated copper (std.).

CONNECTION: Plain.

SENSING BULB: Nickel-plated copper bulb, Ø 7/16".

Other tube systems and capillary lengths available - see page 62.

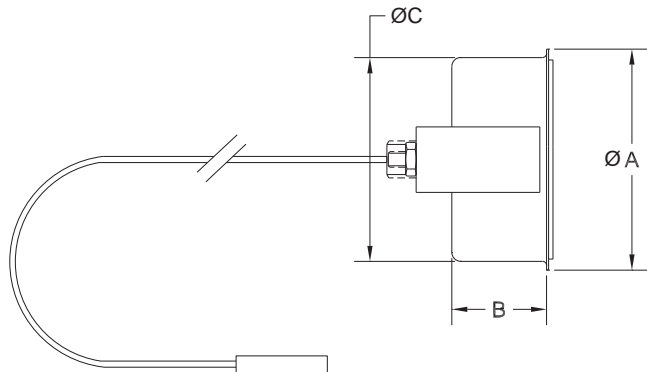
AMBIENT TEMPERATURE: -40 to 140°F (-40 to 60°C).

NSF® Service
 Many Miljoco thermometers are listed by NSF® for use in the food service industry. Consult factory for available models and ranges.



V2567

Models & Dimensions (in.)



*Maximum panel thickness 0.736".

To Order

Select a **Model Number**, then see **Page 64** for temperature range and tube system selections.

Options

- Tubing Strain Relief
- Case Sealant
- Silicone Dampening
- Weephole
- Over Range Protection
- Lens O-Ring

Model	Dial Size	Case Mat'l	Outlet	Lens	A	B	C
V2066	2"	SS	Rear	Press-in	2.24	1.09	2.06
V2046	2"	ABS	Rear	Press-in	2.24	1.09	2.06
V2067	2"	SS	Rear	Threaded	2.24	1.09	2.06
V2066L	2"	SS	Lower	Press-in	2.24	1.09	2.06
V2046L	2"	SS	Lower	Press-in	2.24	1.09	2.06
V2067L	2"	SS	Lower	Threaded	2.24	1.09	2.06
V2567	2½"	SS	Rear	Threaded	2.86	1.09	2.56
V2567L	2½"	SS	Lower	Threaded	2.86	1.09	2.56
V3567	3½"	SS	Rear	Threaded	3.94	1.09	3.50
V3567L	3½"	SS	Lower	Threaded	3.94	1.09	3.50



Flush Mount - Waterproof U-Clamp Case - 2", 2½" Dial Size

Miljoco vapor dial thermometers are manufactured to the highest standards for a wide range of uses and may be fitted into almost any temperature reading application. These instruments are ideal for obtaining readings from remote locations. Being vapor actuated, they are not subject to any ambient temperature variations along the tube system and give excellent readings both above and below ambient. Vapor instruments have progressive graduations and are best read in the upper two-thirds of the range. Many ranges are available between -40°F and 450°F. This series is designed for flush panel-mounting and is furnished with a u-clamp for this service. In addition, they are water-proof and may be easily cleaned.

General Specifications

CASE: Waterproof, 300 series stainless steel.

U-CLAMP: CRS zinc plated.

RING: 300 series stainless steel, with gasket seal.

LENS: Glass.

DIAL: Aluminum with white finish and black markings.

POINTER: Black, adjustable.

MOVEMENT: Brass with precision gearing.

BOURDON TUBE: Phosphor bronze.

ACCURACY: ±One scale division.

TUBE SYSTEM:

CAPILLARY TUBING: 60" tin-plated copper (std.).

CONNECTION: Plain.

SENSING BULB: Nickel-plated copper bulb, Ø 7/16".

Other tube systems and capillary lengths available - see page 62.

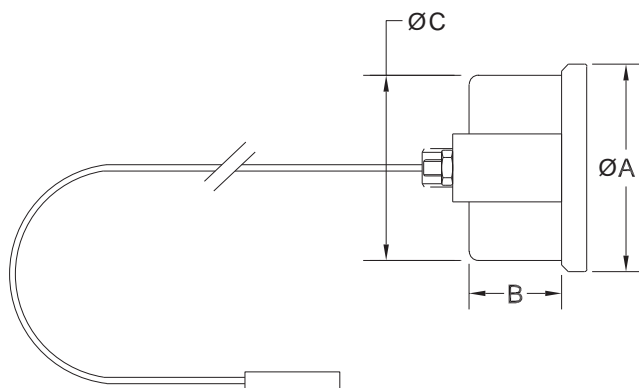
AMBIENT TEMPERATURE: -40 to 180°F (-40 to 82°C).

NSF® Service

Many Miljoco thermometers are listed by NSF® for use in the food service industry. Consult factory for available models and ranges.



Models & Dimensions (in.)



*Maximum panel thickness 0.736".

Model	Dial Size	Case Mat'l	Outlet	Lens	A	B	C
V2069	2"	SS	Rear	Glass	2.30	1.02	2.04
V2569	2½"	SS	Rear	Glass	2.90	1.02	2.55

To Order

Select a **Model Number**, then see **Page 64** for temperature range and tube system selections.

Options

- Tubing Strain Relief
- Case Sealant
- Silicone Dampening
- Weephole
- Over Range Protection



Surface Mount - Rear Flange Case - 2", 2½", 3½" Dial Size

Miljoco vapor dial thermometers are manufactured to the highest standards for a wide range of uses and may be fitted into almost any temperature reading application. These instruments, ideal for obtaining readings from remote locations. Being vapor actuated, they are not subject to any ambient temperature variations along the tube system and give excellent readings both above and below ambient. Vapor instruments have progressive graduations and are best read in the upper two-thirds of the range. Many ranges are available between -40°F and 450°F. This series is furnished with a three-hole rear flange for surface mounting.

General Specifications

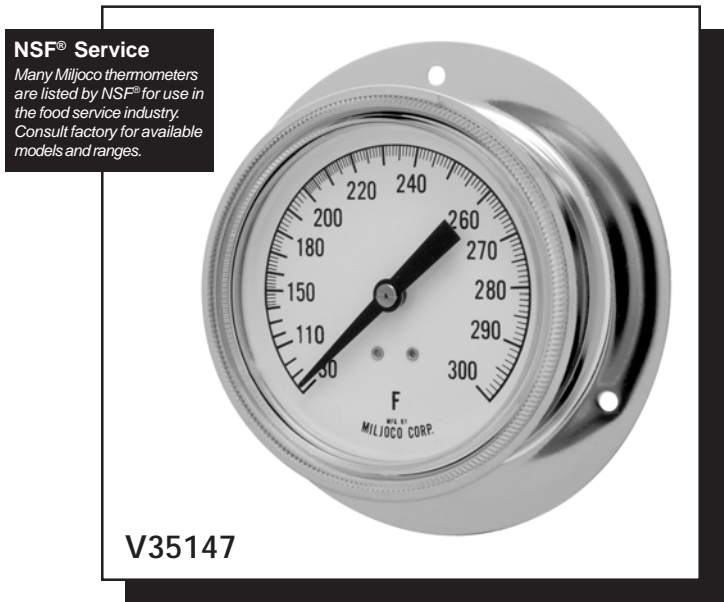
- CASE:** 300 series stainless steel.
- LENS:** Polycarbonate, press-in or threaded.
- DIAL:** Aluminum with white finish and black markings.
- POINTER:** Black, adjustable.
- MOVEMENT:** Brass with precision gearing.
- BOURDON TUBE:** Phosphor bronze.
- ACCURACY:** ±One scale division.
- TUBE SYSTEM:**
 - CAPILLARY TUBING: 60" tin-plated copper (std.).
 - CONNECTION: Plain.
 - SENSING BULB: Nickel-plated copper bulb, Ø 7/16".
- Other tube systems and capillary lengths available - see page 62.*
- AMBIENT TEMPERATURE:** -40 to 140°F (-40 to 60°C).

To Order

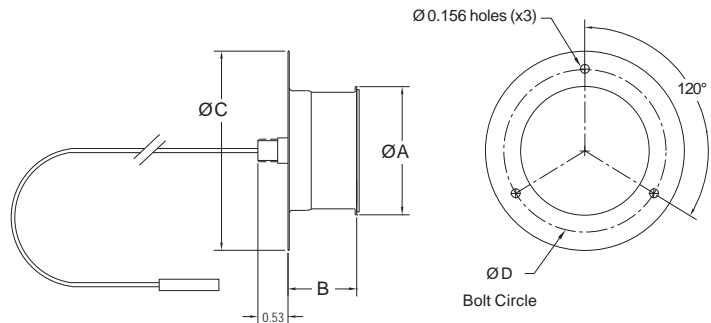
Select a **Model Number**, then see **Page 64** for temperature range and tube system selections.

Options

- Tubing Strain Relief
- Case Sealant
- Silicone Dampening
- Weephole
- Over Range Protection
- Lens O-Ring



Models & Dimensions (in.)



Model	Dial Size	Case Mat'l	Outlet	Lens	A	B	C	D
V20146	2"	SS	Rear	Press-in	2.24	1.09	3.50	3.18
V20147	2"	SS	Rear	Threaded	2.24	1.09	3.50	3.18
V25147	2½"	SS	Rear	Threaded	2.85	1.09	3.67	3.20
V35147	3½"	SS	Rear	Threaded	3.94	1.25	4.87	4.20
V35147L	3½"	SS	Lower	Threaded	3.94	1.25	4.87	4.20

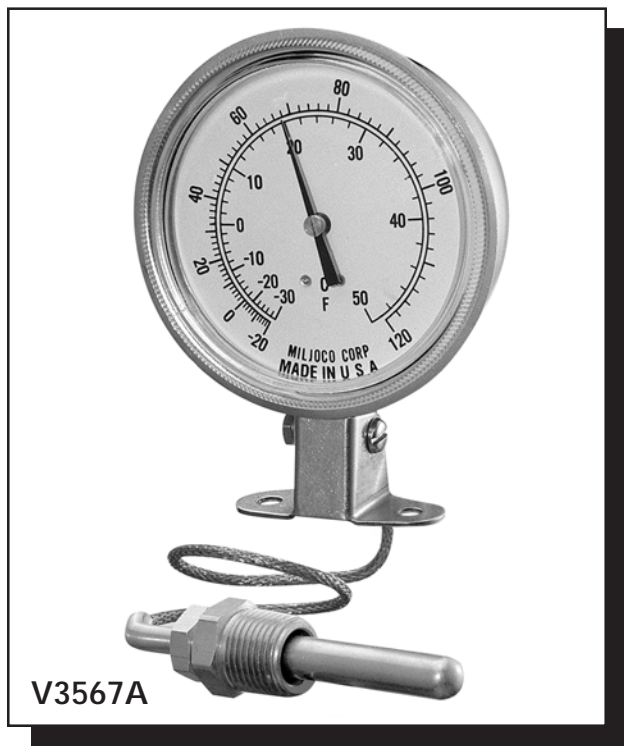


Adjustable Bracket Mount - 3½" Dial Size

Miljoco vapor dial thermometers are manufactured to the highest standards for a wide range of uses and may be fitted into almost any temperature reading application. These instruments are ideal for obtaining readings from remote locations. This series features an adjustable bracket which allows the operator to easily change the viewing angle of the instrument face on a vertical plane. Vapor instruments have progressive graduations and are best read in the upper two-thirds of the range. Many ranges are available between -40°F and 450°F.

General Specifications

- CASE:** 300 series stainless steel.
ADJUSTABLE BRACKET: 300 series stainless steel.
LENS: Polycarbonate, press-in or threaded.
DIAL: Aluminum with white finish and black markings.
POINTER: Black, adjustable.
MOVEMENT: Brass with precision gearing.
BOURDON TUBE: Phosphor bronze.
ACCURACY: ±One scale division.
TUBE SYSTEM:
 CAPILLARY TUBING: 60" tin-plated copper (std.).
 CONNECTION: Plain.
 SENSING BULB: Nickel-plated copper bulb, Ø 7/16".
Other tube systems and capillary lengths available - see page 62.
AMBIENT TEMPERATURE: -40 to 140°F (-40 to 60°C).



Models & Dimensions (in.)

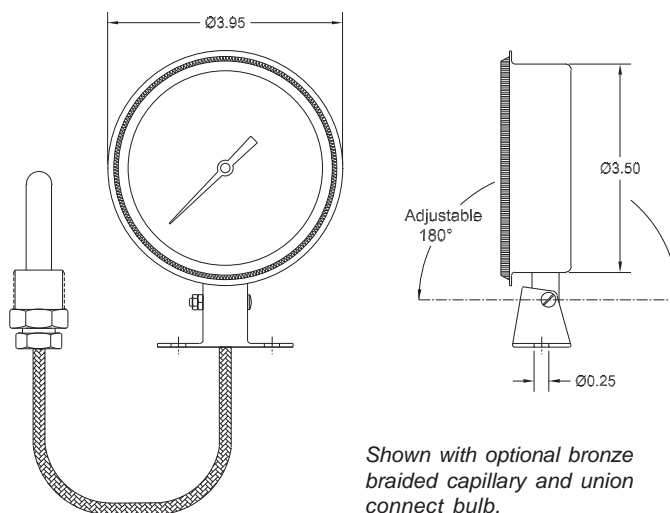
Model	Dial Size	Case Material	Outlet	Lens Type
V3567A	3½"	SS	Lower	Threaded

To Order

Select a **Model Number**, then see **Page 64** for temperature range and tube system selections.

Options

- | | |
|--|---------------------------------------|
| <input type="checkbox"/> Tubing Strain Relief | <input type="checkbox"/> Case Sealant |
| <input type="checkbox"/> Silicone Dampening | <input type="checkbox"/> Weephole |
| <input type="checkbox"/> Over Range Protection | <input type="checkbox"/> Lens O-Ring |



Adjustable Stem Mount - 3½", 4½" Dial Size

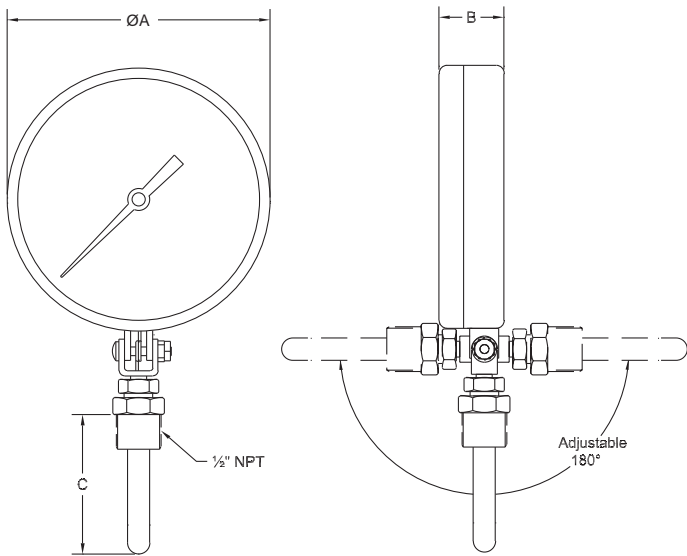
Miljoco vapor dial thermometers are manufactured to the highest standards for a wide range of uses and may be fitted into almost any temperature reading application. This series features an adjustable stem mounting bracket which allows the user to adjust the viewing angle of the dial face up or down, and around for easy reading. Vapor instruments have progressive graduations and are best read in the upper two-thirds of the range. Many ranges are available between -40°F and 450°F.

General Specifications

- CASE:** Brightly finished stainless steel.
- RING:** Stainless steel.
- LENS:** See table below.
- DIAL:** Aluminum with white finish and black markings.
- POINTER:** Black, adjustable.
- MOVEMENT:** Brass with precision gearing.
- BOURDON TUBE:** Phosphor bronze.
- ACCURACY:** ±One scale division.
- CONNECTION:** 1/2" NPT brass union hub.
- SENSING BULB:** Nickel-plated copper bulb, Ø 7/16" x 2½".
Longer bulbs available - consult factory.
- AMBIENT TEMPERATURE:** -40 to 140°F (-40 to 60°C).



Dimensions (in.)



Models

Model	Dial Size	Case Material	Conn.	Lens Type
V3567AC	3½"	SS	½" NPT	Threaded polycarb.
V4598AC	4½"	SS	½" NPT	Acrylic with SS Ring

To Order

Select a **Model Number**, then see **Page 64** for temperature range selections.

Options

- Silicone Dampening
- Weep hole
- Over Range Protection

Model	Dial Size	A	B	C*
V3567AC	3½"	3.94	1.09	2.50
V4598AC	4½"	5.14	1.24	2.50

*Standard length, longer bulb lengths may be available, consult factory.



Surface Mount - Rear Flange Case - 4½" Dial Size

Miljoco vapor dial thermometers are manufactured to the highest standards for a wide range of uses and may be fitted into almost any temperature reading application. These instruments are ideal for obtaining readings from remote locations. Being vapor actuated, they are not subject to any ambient temperature variations along the tube system and give excellent readings both above and below ambient. Vapor instruments have progressive graduations and are best read in the upper two-thirds of the range. Many ranges are available between -40°F and 450°F. This series is furnished with a three-hole rear flange for surface mounting.

General Specifications

- CASE:** Black glass filled nylon.
 - RING:** Stainless steel.
 - LENS:** Glass.
 - DIAL:** Aluminum with white finish and black markings.
 - POINTER:** Black, adjustable.
 - MOVEMENT:** Brass with precision gearing.
 - BOURDON TUBE:** Phosphor bronze.
 - ACCURACY:** ±One scale division.
 - TUBE SYSTEM:**
 - CAPILLARY TUBING: 60" tin-plated copper (std.).
 - CONNECTION: Plain.
 - SENSING BULB: Nickel-plated copper bulb, Ø 7/16".
- Other tube systems and capillary lengths available - see page 62.*
- AMBIENT TEMPERATURE:** -40 to 140°F (-40 to 60°C).



Models

Model	Dial Size	Case Material	Outlet	Case Style
V4509A	4½"	Nylon	Adjustable	Rear Flange

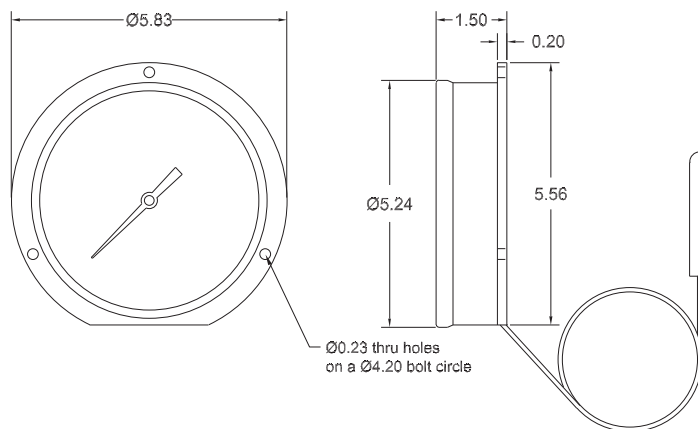
To Order

Select a **Model Number**, then see **Page 64** for temperature range and tube system selections.

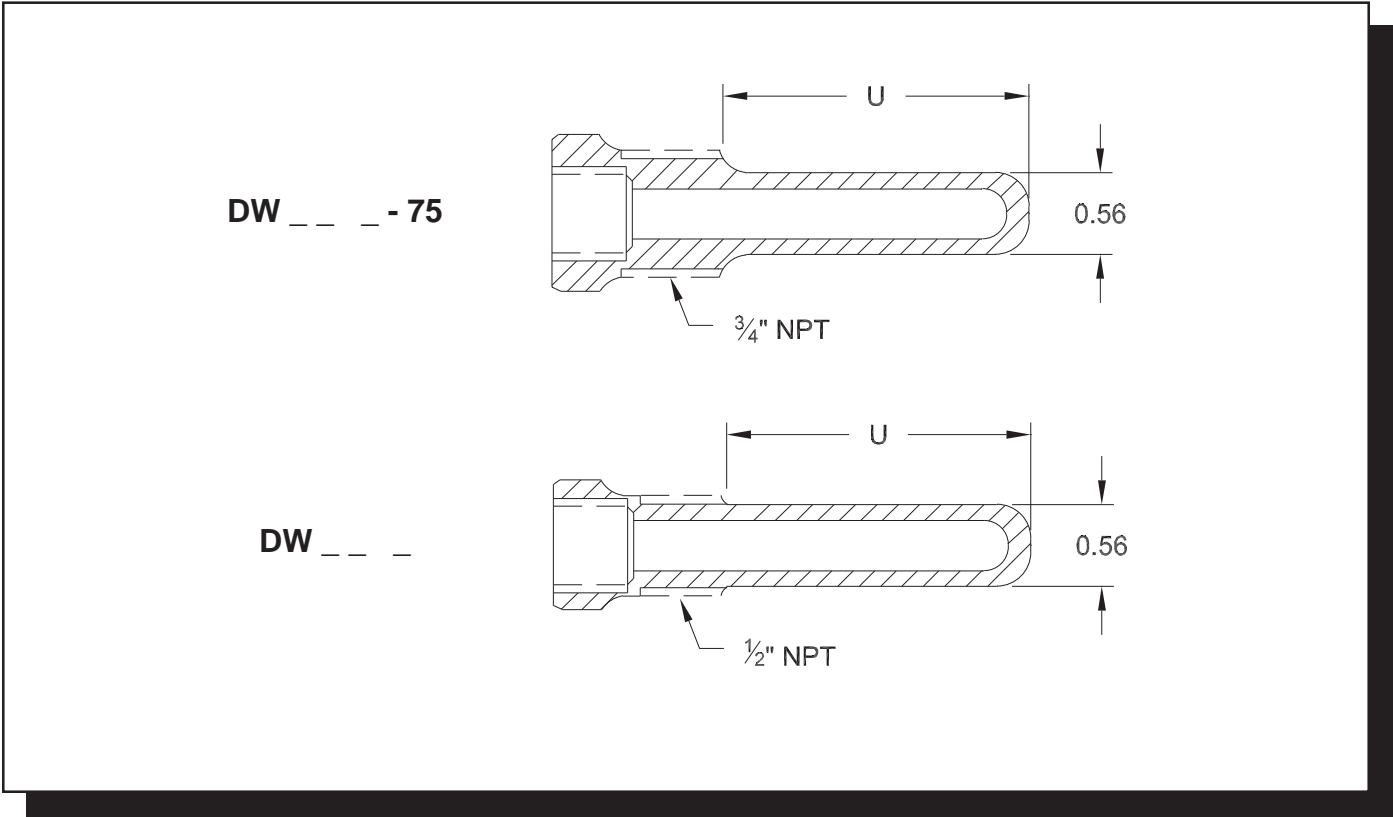
Options

- Tubing Strain Relief
- Silicone Dampening
- Over Range Protection
- Weephole

Dimensions (in.)



Thermowells



These thermowells are designed for use with Miljoco vapor-actuated dial thermometers. They are intended to separate the thermometer from the process or media being measured, which allows for removal of the thermometer and protects of the thermometer stem from corrosive media. They are readily available in brass or 316 stainless steel construction to suit a wide range of applications. Other materials are available on request - consult factory.

Models & Dimensions (in.)

Process Connection	Immersion Length "U"	Material	
		Brass	316SS
1/2" NPT	2.25"	DW25B	DW25316
3/4" NPT	2.25"	DW25B-75	DW25316-75
1/2" NPT	4.25"	DW40B	DW40316
3/4" NPT	4.25"	DW40B-75	DW40316-75
1/2" NPT	6.25"	DW60B	DW60316
3/4" NPT	6.25"	DW60B-75	DW60316-75

The thermowell should be primed before thermometer installation with a heat transfer medium such as oil, graphite or paste to provide optimal accuracy and response time.

Pressure/Temperature Ratings

Material	Temperature (°F)					
	70°F	200°F	400°F	600°F	800°F	1000°F
Brass	1200 psi	1000 psi	200 psi	-	-	-
316SS	2100 psi	2000 psi	1900 psi	1700 psi	1600 psi	1400 psi



2" Rear Connection - Plastic Rear Flange Case

The plastic case, 2" Bimetal thermometer is a less expensive alternative to the stainless steel case and has a rear flange case for surface mounting. The Bimetal thermometer is designed to withstand vibration and other abuse a thermometer may experience. This instrument has a shallow case depth, which is ideal for space conservation. Common applications are food coolers, floral cases, hot food holding cases, & air ducts.

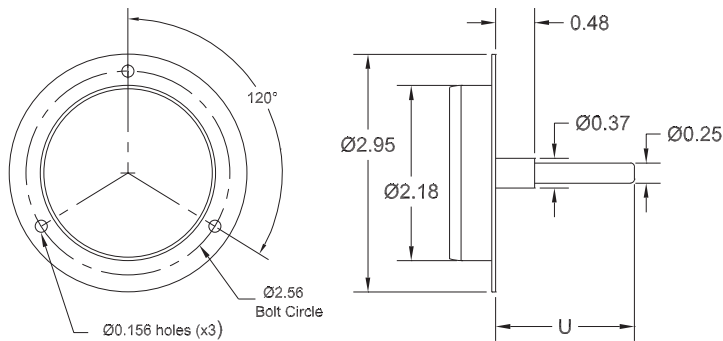
NSF® Service
 Many Miljoco thermometers are listed by NSF® for use in the food service industry. Consult factory for available models and ranges.



General Specifications

- CASE:** ABS, black or white, with surface mounting rear flange.
- LENS:** Polycarbonate.
- DIAL:** Aluminum, black or white finish standard.
Other colors available as special order.
- POINTER:** Black or white, non-adjustable.
- CONNECTION:** Plain.
- STEM:** 300 series stainless steel, Ø 0.250".
- ACCURACY:** ±One scale division.
- AMBIENT TEMPERATURE:** -40 to 140°F (-40 to 60°C).

Stem Lengths & Dimensions (in.)



Stem Length "U" (in.)		
Code	2	4
Dim.	1.74	3.97

Other stem lengths available - consult factory.

Ranges

Range Code	Range	°F Scale		°C Scale	
		Fig.	Div.	Fig.	Div.
31	-40 to 110°F / -40 to 40°C	10°	2°	10°	1°
50	30 to 240°F	20°	2°	-	-

To Order

B 2 0 1 4 6 **3 1** - **2**
 Model Number Range Code Stem Length



Horizontal or Vertical - Flush Mount

Miljoco drum thermometers are excellent in applications where space does not allow for a large dial thermometer. They are available in both vertical and horizontal configurations and can be flush mounted by snapping into a panel with case clips. They feature large numerals on a rotating drum for easy readability and, being solid liquid filled, have a linear scale.

General Specifications

CASE: ABS plastic, black (standard) or white (optional).

LENS: Clear polycarbonate.

SCALE: ABS plastic drum 1/2" high, white with black markings (standard) or black drum with white markings (optional). Also available unmarked with color bands.

BOURDON TUBE: Phosphor bronze, solid liquid filled with direct drive to the drum.

ACCURACY: ±One scale division.

CONNECTING TUBING: 60" PVC tubing, Ø 0.125 (standard). Maximum tubing length is 15 feet.

BULB: Plain, tin-plated brass. Size varies with range. Maximum size is .375 O.D. x 1.5" long.

TEMPERATURE COMPENSATOR: With solid liquid filled

instruments, the entire unit is temperature sensitive, including the bulb, connecting tubing and instrument itself. A bimetal case compensator is supplied to correct any error effect on the case, but care must be exercised to avoid exposing the tubing to temperatures vastly different than the sensing bulb.

AMBIENT TEMPERATURE: -40 to 140°F (-40 to 60°C).

Models & Bulbs

Model	Style	Code	Bulb	Capillary
L2546V	Vertical	03	Tin-plated Brass	PVC
L2546H	Horizontal	03	Tin-plated Brass	PVC

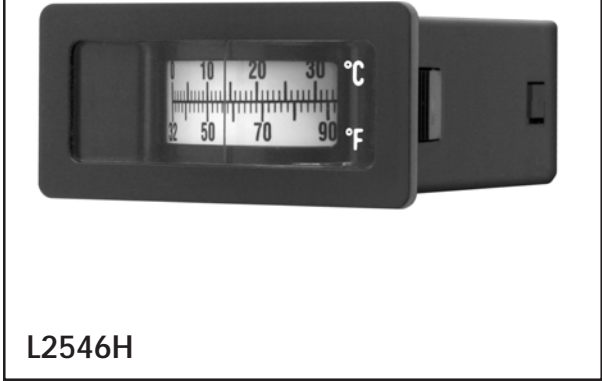
Ranges

Range Code	Range	°F Scale		°C Scale	
		Fig.	Div.	Fig.	Div.
91	-40 to 140°F / -40 to 60°C	20°	2°	20°	1°
45	50 to 250°F / 10 to 120°C	20°	2°	20°	1°

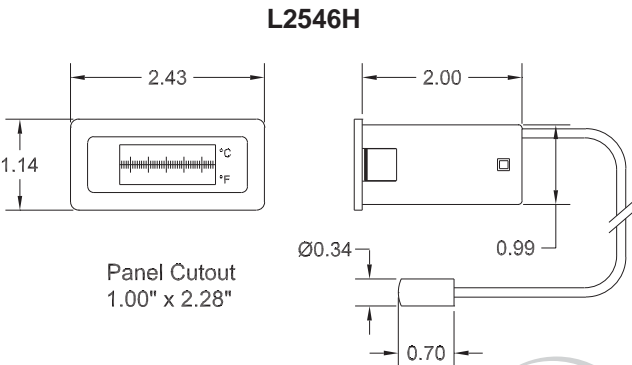
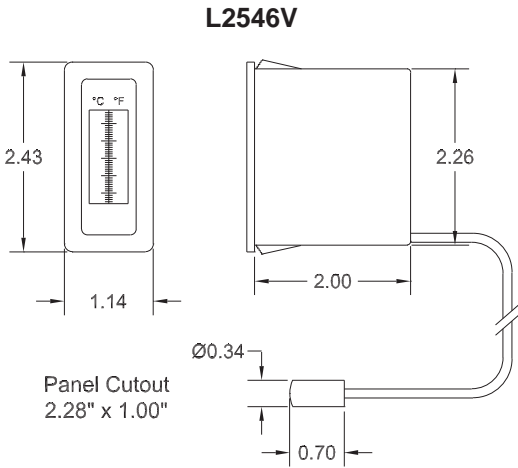
To Order

L 2 5 4 6 V **9 1** **0 3** - **6 0**
 Model Number Range Code Bulb Code Stem Length

NSF® Service
 Many Miljoco thermometers are listed by NSF® for use in the food service industry. Consult factory for available models and ranges.



Dimensions (in.)



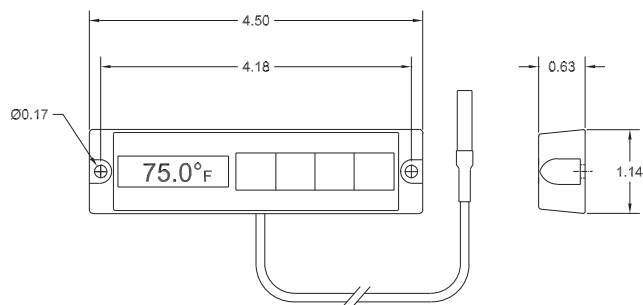
Surface Mount

This popular hi-tech solar-powered thermometer makes an attractive remote reading instrument for surface mounting. It is ideal for refrigerators and freezers to address the need for indicating the temperature of stored food and other perishables. It features a battery back-up system, which enables the instrument to operate in low light levels.

General Specifications

- CASE:** ABS plastic, black (standard) or white (optional)
Surface mounts with two screws from the front.
- FRONT PANEL:** Black polycarbonate.
- DISPLAY:** LCD, black character, 0.375" high with gray background.
- UPDATE TIME:** 10 seconds.
- ILLUMINANCE:** Solar collector, 50 lux, with battery backup for continuous service.
- SENSOR:** Glass passivated thermistor.
- CONNECTION:** Plain.
- SENSOR LEAD:** 60" black PVC. Other lengths available - consult factory.
- BULB (SENSOR):** Nickel-plated brass, Ø 0.225".
- ACCURACY:** ±2°F or 1°C.
- RESOLUTION:** 0.1°F or °C.
- RECALIBRATION:** Internal potentiometer, maximum adjustment ±8°F.
- AMBIENT TEMPERATURE:** -10 to 140°F (-40 to 60°C).

Dimensions (in.)



NSF® Service
Many Miljoco thermometers are listed by NSF® for use in the food service industry. Consult factory for available models and ranges.



CD1046

Range

Code	Range
84	-58 to 158°F / -50 to 70°C

Case Color

Code	Color
B	Black
W	White

To Order

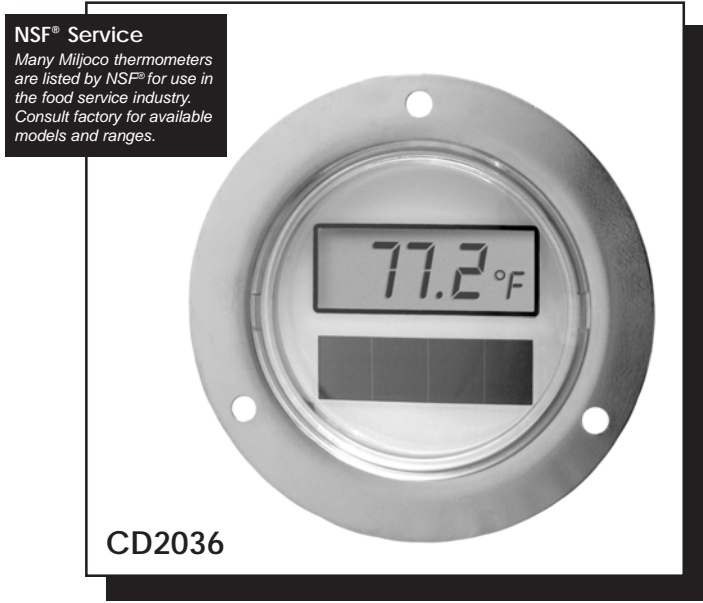
CD1046 **84** - **60** **B**
 Model Number Range Sensor Lead Length Case Color



Flush Mount - Front Flange Case - 2" Case Size

Miljoco solar-powered thermometers are designed to operate in varying light conditions. The temperature display will indicate using only solar power in light levels greater than 100 lux, but will continue to function below 100 lux with its battery backup system. This system is designed to last 3 to 4 years under normal conditions, after which the display will continue to function above 100 lux. These front flange thermometers are designed to be installed in a panel using three screws from the front.

These thermometers are ideal for applications such as refrigeration equipment, chilled systems, NSF® listed equipment, spas and control panels. They will display in either Fahrenheit or Celsius scale, which may be switched from the rear of the case. Sensing leads may be furnished up to 10 feet long.



General Specifications

- CASE MATERIAL:** 300 Series Stainless Steel
- LENS:** Threaded acrylic.
- DISPLAY:** LCD, black characters, 0.375" high with gray background.
- UPDATE TIME:** 10 seconds.
- RESOLUTION:** 0.1°F or °C.
- ACCURACY:** ± 2°F.
- CONNECTION:** Plain.
- SENSOR LEAD:** Code **03** - 48" black PVC.
Other lengths available - consult factory.
- SENSOR:** Nickel plated brass, Ø 0.225".
- POWER:** Solar, 100 Lux minimum light level.
- AMBIENT TEMPERATURE:** -10 to 140°F (-40 to 60°C).

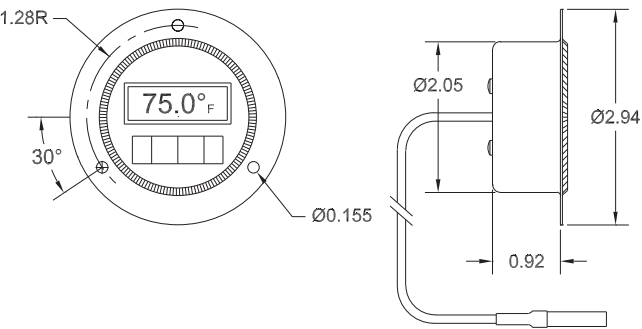
Ranges

Code	Range
84	-58 to 158°F / -50 to 70°C
85	-58 to 302°F / -50 to 150°C

Sensor Lead

Code	Type
03	Black PVC Covered

Dimensions (in.)



To Order

CD2036	84	03	-	48
Model Number	Range Lead	Sensor Code		Sensor Lead Length (inches)



Flush Mount - U-Clamp Case - 2" Case Size

Miljoco solar-powered thermometers are designed to operate in varying light conditions. The temperature display will indicate using only solar power in light levels greater than 100 lux, but will continue to function below 100 lux with its battery backup system. This system is designed to last 3 to 4 years under normal conditions, after which the display will continue to function above 100 lux. This thermometer is designed for flush panel-mounting and is furnished with a u-clamp for this service.

These instruments are ideal for applications such as refrigeration equipment, chilled systems, NSF® listed equipment, spas and control panels. They will display in either Fahrenheit or Celsius scale, which may be switched from the rear of the case. Sensing leads may be furnished up to 10 feet long.

NSF® Service

Many Miljoco thermometers are listed by NSF® for use in the food service industry. Consult factory for available models and ranges.



CD2066

General Specifications

CASE MATERIAL: 300 Series Stainless Steel

LENS: Threaded acrylic.

DISPLAY: LCD, black characters, 0.375" high with gray background.

UPDATE TIME: 10 seconds.

RESOLUTION: 0.1°F or °C.

ACCURACY: ± 2°F.

CONNECTION: Plain.

SENSOR LEAD: Code 03 - 48" black PVC.

Other lengths available - consult factory.

SENSOR: Nickel plated brass, Ø 0.225".

POWER: Solar, 100 Lux minimum light level.

AMBIENT TEMPERATURE: -10 to 140°F (-40 to 60°C).

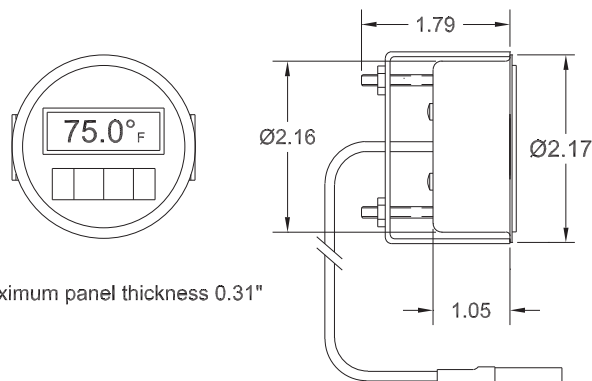
Ranges

Code	Range
84	-58 to 158°F / -50 to 70°C
85	-58 to 302°F / -50 to 150°C

Sensor Lead

Code	Type
03	Black PVC Covered

Dimensions (in.)



*Maximum panel thickness 0.31"

To Order

CD2066	84	03	-	48
Model Number	Range Lead	Sensor Code		Sensor Lead Length (inches)



Surface Mount - Rear Flange Case - 2" Case Size

Miljoco solar-powered thermometers are designed to operate in varying light conditions. The temperature display will indicate using only solar power in light levels greater than 100 lux, but will continue to function below 100 lux with its battery backup system. This system is designed to last 3 to 4 years under normal conditions, after which the display will continue to function above 100 lux. This thermometer is furnished with a three-hole rear flange for surface mounting.

These instruments are ideal for applications such as refrigeration equipment, chilled systems, NSF® listed equipment, spas and control panels. They will display in either Fahrenheit or Celsius scale, which may be switched from the rear of the case. Sensing leads may be furnished up to 10 feet long.

General Specifications

- CASE MATERIAL:** 300 Series Stainless Steel
- LENS:** Threaded acrylic.
- DISPLAY:** LCD, black characters, 0.375" high with gray background.
- UPDATE TIME:** 10 seconds.
- RESOLUTION:** 0.1°F or °C.
- ACCURACY:** ± 2°F.
- CONNECTION:** Plain.
- SENSOR LEAD:** Code 03 - 48" black PVC.
Other lengths available - consult factory.
- SENSOR:** Nickel plated brass, Ø 0.225".
- POWER:** Solar, 100 Lux minimum light level.
- AMBIENT TEMPERATURE:** -10 to 140°F (-40 to 60°C).

NSF® Service
Many Miljoco thermometers are listed by NSF® for use in the food service industry. Consult factory for available models and ranges.



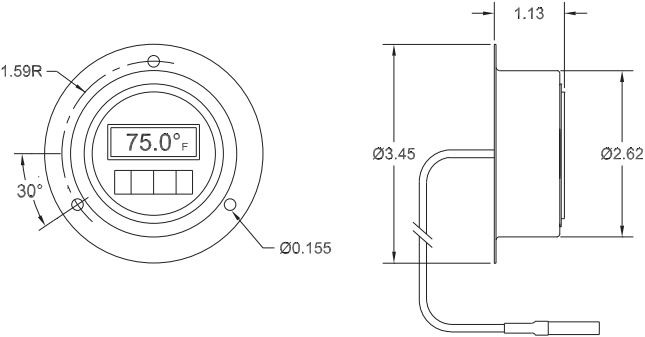
Ranges

Code	Range
84	-58 to 158°F / -50 to 70°C
85	-58 to 302°F / -50 to 150°C

Sensor Lead

Code	Type
03	Black PVC Covered

Dimensions (in.)



To Order

CD20146 **84** **03** - **48**
 Model Number Range Lead Sensor Code Sensor Lead Length (inches)



Pocket Test Type



Pocket Thermometer with Magnifying Lens



- Stainless Steel Case
- 1" White Dial with Black Markings
- 5" Long Stem, Ø 0.150"
- Red Pointer
- Recalibrator Lug
- White Plastic Sheath
- NSF® Listed

Models	
Model	Range
B1098M90C-5.0	-40 to 160°F
B1098M82C-5.0	0 to 220°F*
B1098M43C-5.0	25 to 125°F*
B1098M95C-5.0	50 to 500°F
B1098M28C-5.0	0 to 100°C
B1098M42C-5.0	-40 to 70°C

**NSF® listed range.*

Pocket Thermometer with Domed Lens



- Stainless Steel Case
- 1" White Dial with Black Markings
- 5" Long Stem, Ø 0.150"
- Red Pointer
- Recalibrator Hex Nut
- White Plastic Sheath
- NSF® Listed

Models	
Model	Range
B1098D90A-5.0	-40 to 160°F
B1098D82A-5.0	0 to 220°F*
B1098D43A-5.0	25 to 125°F*
B1098D95A-5.0	50 to 500°F
B1098D28A-5.0	0 to 100°C
B1098D42A-5.0	-40 to 70°C

**NSF® listed range.*



Refrigerator Case Thermometer



- Stainless Steel Case
- 1" White Dial with Black Markings
- Ø 0.150" Stem with 1/4-28 Connection
- Installation Nut
- Red Pointer
- Recalibrator Hex Nut
- NSF® Listed

Models	
Model	Stem Length
B1098D18D-2.5	2½"
B1098D18D-3.5	3½"
B1098D18D-5.0	5"

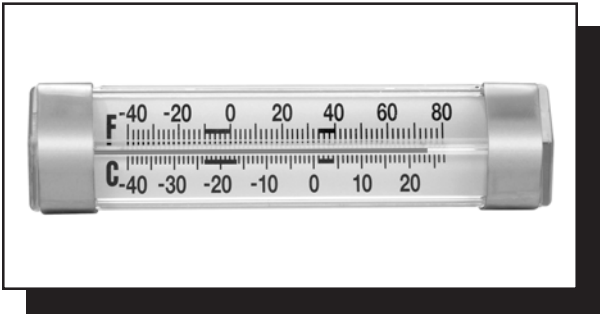
- Accessory
- #65-11 2-Hole Mounting Flange

CD109885 Digital Pocket Test Thermometer

- 1¼" Brown Plastic Case
- 5" Long Stem, Ø 0.150"
- Switchable Between F/C
- On/Off Switch
- 58 to 302°F & -50 to 150°C



Refrigerator / Freezer

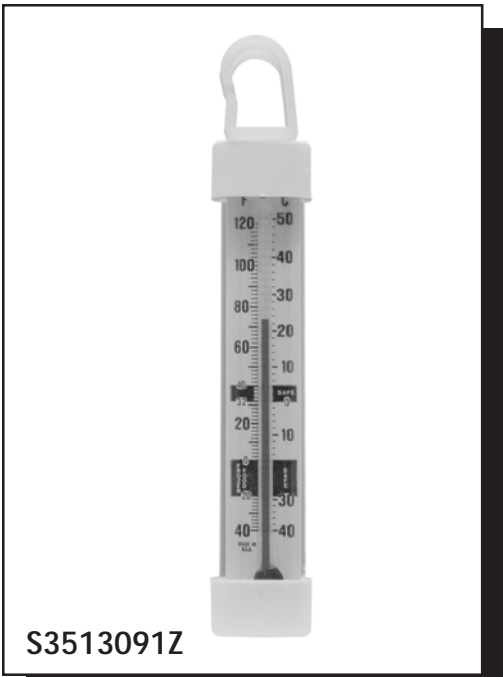


**Model S501323
Horizontal Refrigerator/Freezer
Thermometer**

- 5" Acrylic Case
- Magnifying Lens
- Red, Non-Toxic Spirit Fill
- Hanging, Standing, or Screwed Mounting
- 40 to 80°F (-40 to 27°C)

**Model B259817
Refrigerator/Freezer
Thermometer**

- Stainless Steel Case
- Glass Lens
- Two-Way Stand or Hang Design
- 20 to 80°F (-30 to 30°C)
- Zoned Scale for Recommended Temperatures



S3513091Z

Economy Spirit Thermometer



- 3½" Polycarbonate Case
- Non-Toxic, Red Spirit Fill
- 40 to 120°F (-40 to 50°C)
- NSF® Listed

Models

Standard Scale	Safe-Zone* Scale	NSF® Model Number	Mounting	Reading
S3513091	S3513091Z	B9122	Hanging	Vertical
S3511091	S3511091Z	B9122	Single Screw Bracket	Vertical
S3519091	S3519091Z	B9121	Single Snap Bracket	Vertical
S3512091	S3512091Z	B9121	Double Screw Bracket	Vertical
S3518091	S3518091Z	B9121	Double Snap Bracket	Vertical
S350091M	S350091ZM	B9121	Magnetic Back	Vertical
S350091T	S350091ZT	B9121	Stick-On Back	Vertical
S3512092	S3512092Z	B9121	Double Screw Bracket	Horizontal
S3518092	S3518092Z	B9121	Double Snap Bracket	Horizontal
S350092PT	S350092ZPT	B9121	Price Tag Molding	Horizontal
S350092M	S350092ZM	B9121	Magnetic Back	Horizontal
S350092T	S350092ZT	B9121	Stick-On Back	Horizontal

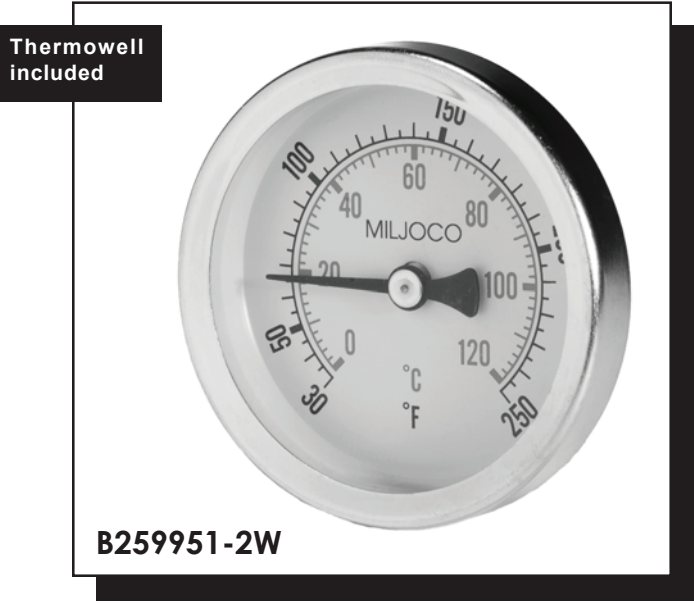
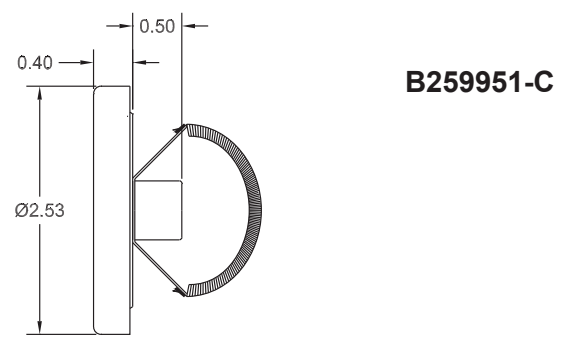
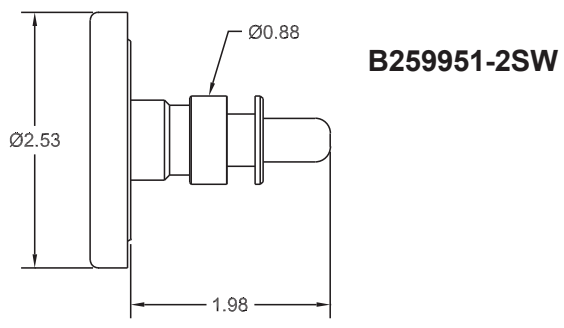
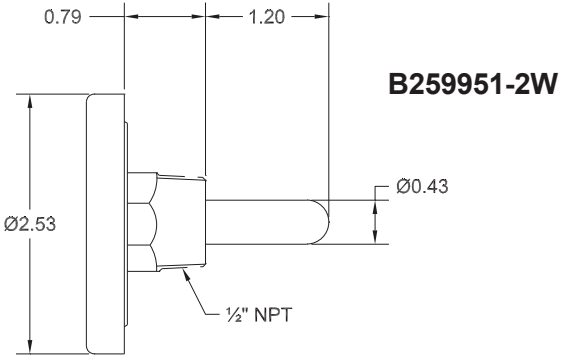
*The Safe-Zone Scale includes blue zones indicating the safe storage temperatures for refrigerated and frozen food.



Bimetal Type - 2 1/2" Dial

The Miljoco Hot Water Thermometer represents a good value for installations where temperature accuracy is less critical and there are no corrosive elements in the environment or process media. This thermometer simply press-fits into the brass thermowell that is provided. A clamp-on version is also available for mounting directly onto a small diameter pipe to eliminate the need for a piping tee. Typical installations are heating coils, hydronic radiant in-floor systems, outdoor wood-burning furnaces, etc.

Dimensions (in.)



Range

Range	°F Scale		°C Scale	
	Fig.	Div.	Fig.	Div.
30 to 250°F / 0 to 120°C	50°	5°	20°	2°

General Specifications

- CASE:** Zinc plated brass.
- RING:** Chrome plated brass.
- LENS:** Glass.
- DIAL:** Aluminum, white finished with black and red markings.
- POINTER:** Black.
- RECALIBRATOR:** External reset on tip of stem.
- STEM:** Brass
- MOUNTING:**
 - B259951-2W:** Brass thermowell, 1/2" NPT
 - B259951-2SW:** Brass thermowell, sweat conn.
 - B259951-C:** Flexible steel mounting spring
- ACCURACY:** ±5°F & ±2°C.
- AMBIENT TEMPERATURE:** -40 to 250°F (-40 to 120°C).

Options

- Lead-Free: B259951-2W-PBF
B259951-2SW-PBF*



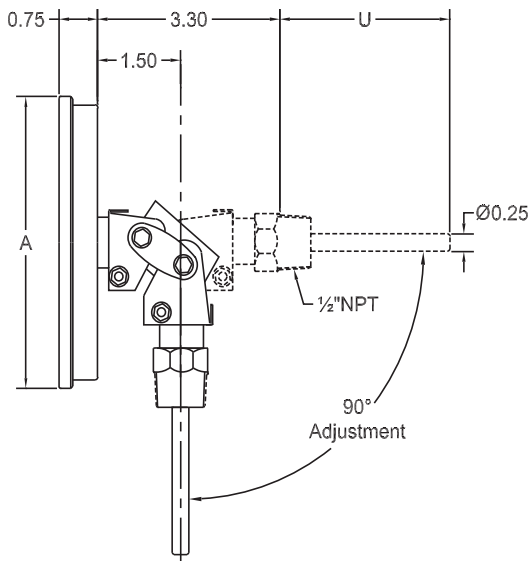
3" or 5" Adjustable Angle

Miljoco adjustable angle bimetal thermometers are a favorite for their versatility. The construction industry values this instrument, where on-the-job piping requires reading the instrument from a variety of angles. The connection can be rotated 360° and the face can be angled 90° for the user's convenience. These instruments are designed to withstand vibration and other rugged abuse. The hermetically-sealed, stainless steel case prevents moisture from entering into the instrument and fogging the lens, thus allowing the operator to obtain clear, accurate readings.

General Specifications

- CASE & RING:** Hermetically sealed 300 series stainless steel.
- ADJUSTABLE BRACKET:** 300 series stainless steel.
- LENS:** Double strength glass standard, with polycarbonate (250°F maximum range) optional.
- DIAL:** Anti-parallax, aluminum with white finish and black markings.
- POINTER:** Black.
- RECALIBRATOR:** External recalibrator on rear of case.
- CONNECTION:** 300 series stainless steel, 1/2" NPT.
- STEM:** 300 series stainless steel, Ø 0.250".
- ACCURACY:** ±1% full range (ASME B40.3 Grade A).
- AMBIENT TEMPERATURE:** -40 to 250°F (-40 to 120°C).

Models & Dimensions (in.)



Model	Dial Size	Lens	A	B	C	D
B3099A	3"	Glass	3.18	0.625	1.60	3.50
B3098A	3"	Polycarb.	3.18	0.625	1.60	3.50
B5099A	5"	Glass	5.14	0.685	1.60	3.50
B5098A	5"	Polycarb.	5.14	0.685	1.60	3.50



Ranges

Range Code	Range	°F Scale		°C Scale	
		Fig.	Div.	Fig.	Div.
39	-40 to 160°F / -40 to 70°C	20°	2°	10°	1°
43	25 to 125°F / -5 to 50°C	10°	1°	5°	.5°
54	0 to 250°F / -20 to 120°C	50°	2°	20°	2°
63	50 to 300°F / 10 to 150°C	50°	2°	20°	2°
94	50 to 500°F / 10 to 260°C	50°	2°	20°	2°
65	150 to 750°F / 50 to 400°C	100°	10°	50°	5°
59	200 to 1000°F / 100 to 530°C	100°	10°	50°	5°

Other ranges may be available - consult factory.

Stem Lengths

Stem Length "U" (in.)					
Code	2	4	6	9	12
Dim.	2.50	4.00	6.00	9.00	12.00

Other stem lengths available - consult factory.

To Order

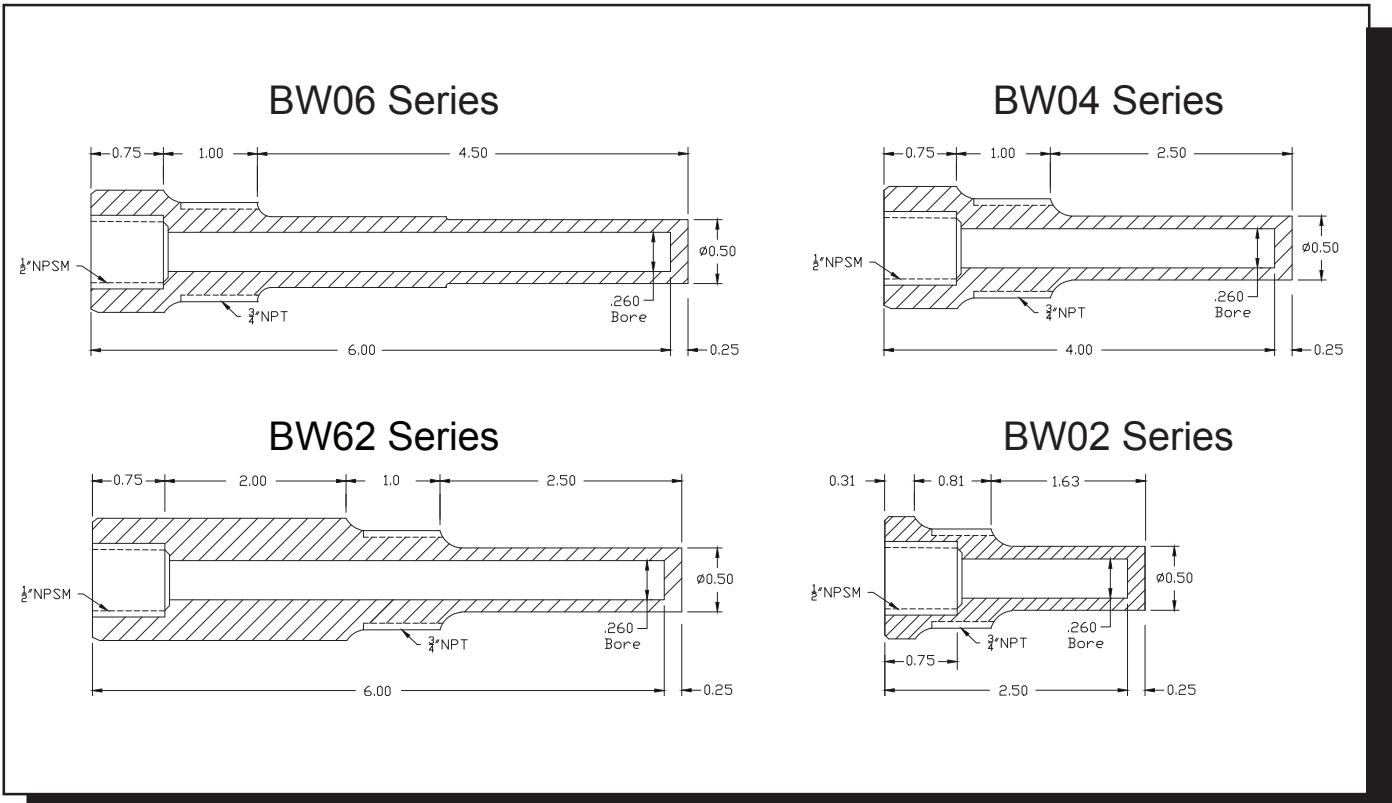
B 5 0 9 9 A **4 3** - **6**
 Model Number Range Stem
 Code Length

Options

- Polycarbonate Lens (Model B5098A or B3098A)
- Silicone Fill (Model BSF5099A or BSF3099A)



Thermowells & Mounting Flanges



These thermowells are designed for use with Miljoco 3" & 5" Bimetal Thermometers. They are intended to separate the thermometer from the process or media being measured to allow for removal of the thermometer and protection of the thermometer stem from corrosive media. They are readily available in brass, 304 stainless, or 316 stainless steel construction to suit a wide range of applications. Other materials and designs are available on request - consult factory.

The thermowell should be primed before thermometer installation with a heat transfer medium such as oil, graphite or paste to provide optimal accuracy and response time.

Models & Dimensions (in.)

Stem Length "S"	Process Conn. "A"	Immersion Length "U"	Lagging Ext. "T"	Material		
				Brass	304SS	316SS
2-1/2"	3/4" NPT	1.63"	None	BW02B	BW02304	BW02316
4"	3/4" NPT	2.50"	None	BW04B	BW04304	BW04316
6"	3/4" NPT	4.50"	None	BW06B	BW06304	BW06316
6"	3/4" NPT	2.50"	2.00"	BW62B	BW62304	BW62316
9"	3/4" NPT	7.50"	None	BW09B	BW09304	BW09316
9"	3/4" NPT	4.50"	3.00"	BW93B	BW93304	BW93316
12"	3/4" NPT	10.50"	None	BW12B	BW12304	BW12316
12"	3/4" NPT	7.50"	3.00"	BW123B	BW123304	BW123316

Other stem lengths, connection sizes, and materials are available - consult factory.

Duct Mounting Flange

Model	Description	Material	Conn.
65-10	3-Hole Mounting Flange	Zinc-Plated Cast Iron	1/2" NPT

Pressure/Temperature Ratings

Material	Temperature						
	70°F	200°F	400°F	600°F	800°F	1000°F	1200°F
Brass	5000 psi	4200 psi	1000 psi	-	-	-	-
304SS	7000 psi	6200 psi	5600 psi	5400 psi	5200 psi	4500 psi	1650 psi
316SS	7000 psi	7000 psi	6400 psi	6200 psi	6100 psi	5100 psi	2500 psi



Solar Digital

The solar-powered Miljoco CDX9 Series represents the "next generation" in industrial thermometers. The bold, hi-contrast display is easily read from greater distances than the typical glass tube thermometer. The unique, patented* design includes bi-directional solar panels, allowing the unit to collect light from multiple planes and providing reliable service in even the most dimly lit installations.

The CDX9 Industrial Thermometer is furnished in one standard temperature range (-58 to 302°F & -50 to 150°C) which is switchable in the field. This wide range covers most applications for this type of product, while offering an environmentally-friendly alternative to the commonly specified mercury-in-glass thermometer.
***Patent No. D488,396**

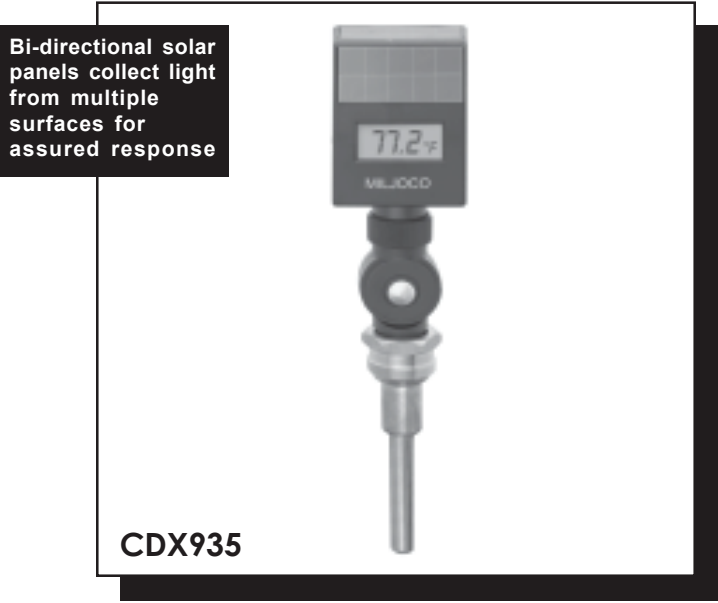
General Specifications

- CASE:** High impact ABS black plastic.
- STEM:** Aluminum, 3-1/2" or 6".
- CONNECTION:** 1-1/4"-18 UNF brass coupling nut.
- SENSOR:** Glass passivated thermistor.
- RANGE:** -58 to 302°F (-50 to 150°C), field-switchable between °F & °C.
- DISPLAY:** LCD, black character, 0.50" high with gray background.
- ILLUMINANCE:** Bi-directional solar collectors, 35 lux.
- UPDATE TIME:** 10 seconds.
- ACCURACY:** Greater value of 1° or 1% of reading.
- RESOLUTION:** 0.10° from -58 to 199.9°F (-50° to 93°C), 1.0° from 200 to 302°F (94° to 150°C).
- RECALIBRATION:** Internal potentiometer.
- ENVIRONMENTAL CONDITIONS:**
 - Ambient Temperature: -20 to 140°F (-35 to 60°C).
 - Ambient Temper
 - Maximum Humidity: 100%.
- ADJUSTABLE FITTING:** Finished to match the case and locked in place with a screw. Provides 180° adjustment in vertical plane and 360° adjustment in horizontal plane.

Range	
Code	Range
85	-58 to 302°F / -50 to 150°C

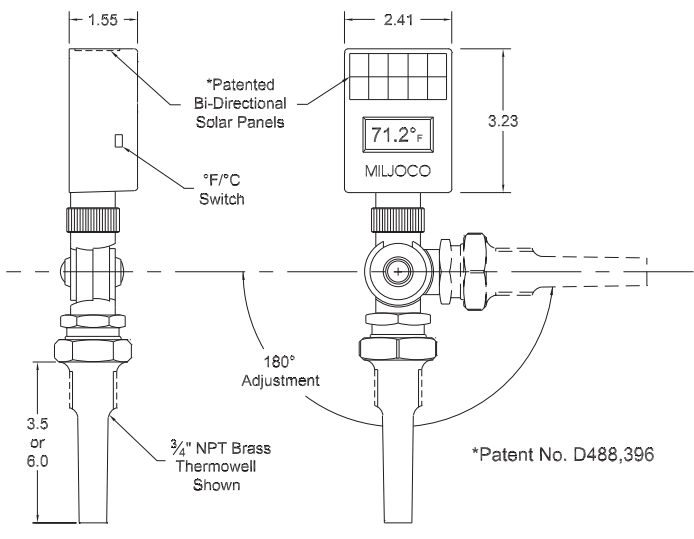
Options & Accessories

- Air-Duct Stem
- Water-Proof Plastic Cover



Models & Dimensions (in.)

Model Number	Stem Length	Dimension (in.)			
		A	B	C	U
CDX935	3½"	3.20	7.56	5.75	2.50
CDX960	6"	3.20	10.06	8.25	5.00



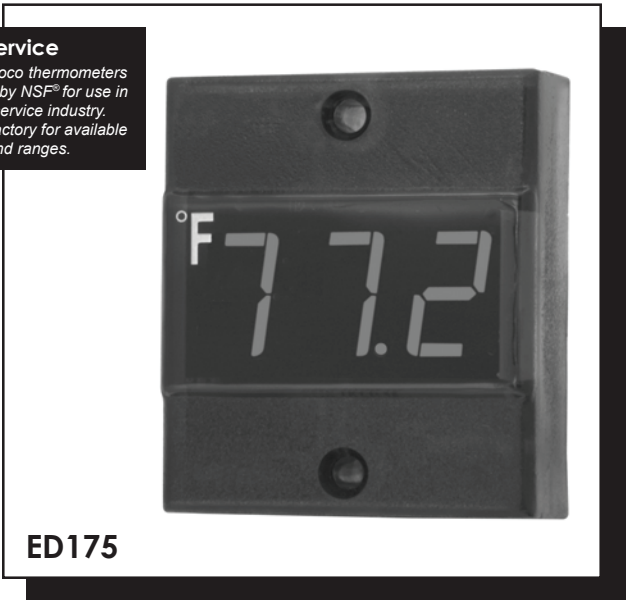
To Order

CDX935 **85**
 Model Number Range Code

Flush or Surface Mount

The Miljoco Series ED175 features an extra large, brightly-lit display that is easily readable from long distances. The case is compact and attractive, and can be surface or flush mounted. This thermometer is ideal for multiple module installations in control packages or special engineering projects, and is the most popular style used in the food service equipment industry. This thermometer works well in both hot food and refrigeration applications and will operate on 12 VAC or 12 VDC. Other voltages are available.

NSF® Service
 Many Miljoco thermometers are listed by NSF® for use in the food service industry. Consult factory for available models and ranges.



ED175

General Specifications

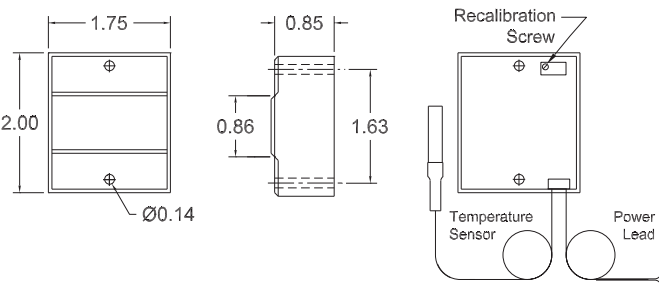
- CASE MATERIAL:** Dark red acrylic.
- DISPLAY:** High intensity red LED, 0.56" high.
- UPDATE TIME:** 4 seconds.
- RESOLUTION:** 1°F.
- ACCURACY:** ± 2°F.
- RECALIBRATION:** Adjustment screw accessed from rear of case.
- CONNECTION:** Plain sensor standard, consult table for other choices.
- SENSOR LEAD:** PVC coated wire soldered directly to the instrument at the rear of the case. 96" lead length standard. Other lengths available up to 1000 feet.
- SENSOR:** Thermistor type, furnished standard plain with nickel-plated copper bulb. See table for other types.
- POWER:** 12 VAC or 12 VDC. Optional transformer (110 VAC to 12 VAC) sold separately.

Ranges

Code	Range
96	-40 to 120°F
56	50 to 250°F
86	-40 to 50°C
87	10 to 120°C
91*	-40 to 120°F / -40 to 50°C
57*	50 to 250°F / 10 to 120°C

Switch on rear of display to select °F or °C reading

Dimensions (in.)



Sensors

Code	Sensor Material	Sensor Length	Lead Material	Lead Length	Conn. Type
02	Ni-plated Cu	1¾"	PVC	96"	Plain
03	PVC	1"	PVC	96"	Plain
05	SS	2½"	PVC	96"	Plain
13	Brass	2½"	PVC	96"	½" NPT

Accessories

Model	Description
161-115	Transformer, 115VAC to 12VAC
115-205	Stainless Steel Flush Mounting Plate

To Order

ED175 96 03 - 96
 Model Number Range Code Sensor Code Sensor Lead Length (inches)



2" Case Size - Flush Mount - U-Clamp Case

The Miljoco Series ED2046 features an extra large, brightly-lit display that is easily readable from long distances. The case is designed to be installed into an existing 2" dial thermometer panel cut-out, which makes this thermometer an excellent choice for equipment upgrades or retro-fits. This thermometer works well in both hot food and refrigeration applications and will operate on 12 VAC or 12 VDC. Other voltages are available.

General Specifications

- CASE MATERIAL:** Dark red acrylic.
- DISPLAY:** High intensity red LED, .56" high.
- UPDATE TIME:** 4 seconds.
- RESOLUTION:** 1°F.
- ACCURACY:** ± 2°F.
- RECALIBRATION:** Furnished standard with an adjusting screw accessed from rear of case.
- CONNECTION:** Furnished standard plain, consult factory for other requirements.
- SENSOR LEAD:** Furnished standard with 96" of Ø 5/32", black PVC covered wire, soldered directly to the instrument at the rear of the case. Longer lengths available up to 1000 feet.
- SENSOR:** Thermistor type, furnished standard plain with nickel-plated copper bulb. See table for other types
- POWER:** 12 VAC or 12 VDC. Optional transformer (110 VAC to 12 VAC) sold separately.
- AMBIENT TEMPERATURE:** -40 to 140°F (-40 to 60°C).

NSF® Service
 Many Miljoco thermometers are listed by NSF® for use in the food service industry. Consult factory for available models and ranges.

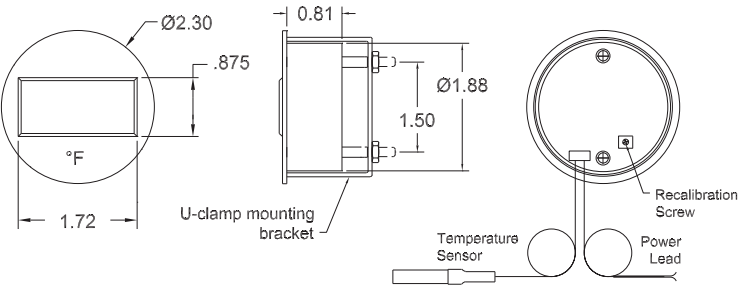


Ranges

Code	Range
56	50 to 250°F
87	10 to 120°C
57*	50 to 250°F / 10 to 120°C

*Shipped from factory as °F, with one-time cut wire to °C.

Dimensions (in.)



Sensors

Code	Sensor Material	Sensor Length	Lead Material	Lead Length	Conn. Type
02	Ni-plated Cu	1¼"	PVC	96"	Plain
05	SS	2½"	PVC	96"	Plain
13	Brass	2½"	PVC	96"	½" NPT

To Order

ED2046 57 02 - 96

Model Number
Range Code
Sensor Code
Sensor Lead Length (inches)

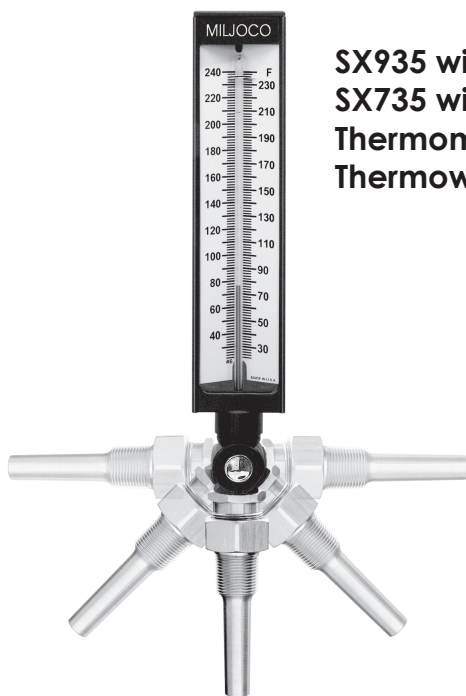
Accessories

Model	Description
161-115	Transformer, 115VAC to 12VAC
115-106	Stainless Steel Flush Mounting Plate





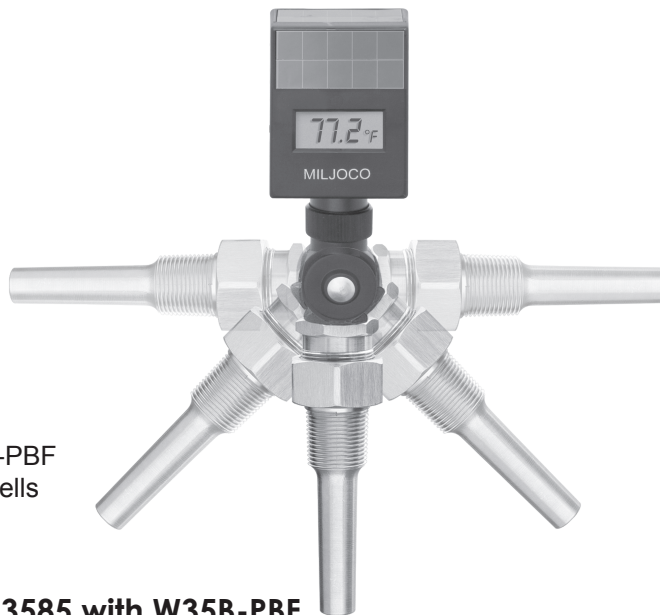
Industrial thermometers with Lead-Free Thermowells



SX935 with W35B-PBF
SX735 with W35B-PBF
 Thermometer Page 36
 Thermowell Page 38



W35B-PBF & W351B-PBF
 UL Listed Thermowells

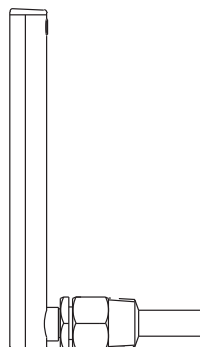


CDX93585 with W35B-PBF
 Thermometer Page 37
 Thermowell Page 38

Industrial thermometers with Lead-Free Thermowells

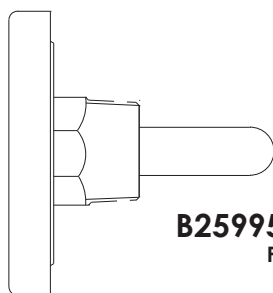


S531S-PBF
S551S-PBF
 Page 40

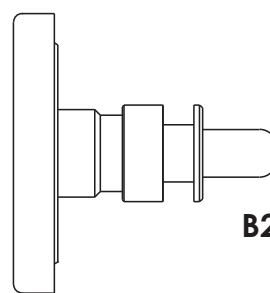


S531A-PBF
S551A-PBF
 Page 40

Hotwater Thermometer with Lead-Free Thermowells



B259951-2W-PBF
 Page 47



B259951-2SW-PBF
 Page 47

* See individual pages for further details. *



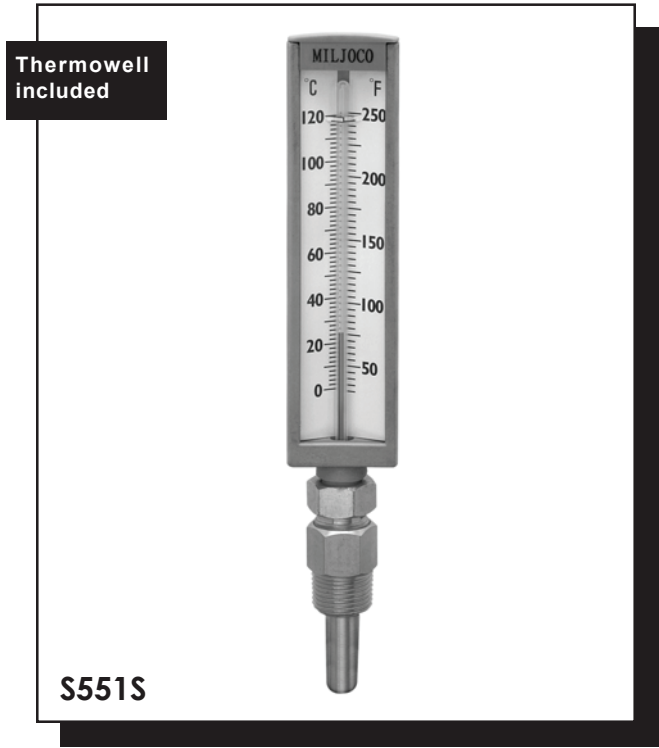
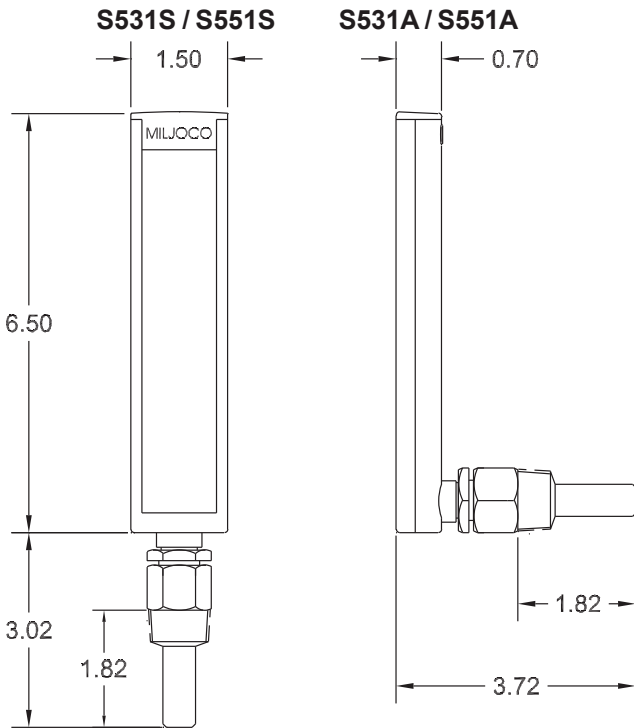
5" Straight or Angle

This general purpose thermometer features a blue reading, non-toxic spirit-filled tube. The 5" scale is easily read against the wide front magnifying glass tubing. Rugged and economical, this industrial thermometer meets most specifications for the general construction industry. Common applications are hot-water boilers, refrigeration lines, light-duty steam service and chillers.

General Specifications

- CASE:** Rigid gray ABS plastic.
- LENS:** Glass.
- SCALE:** Aluminum with white finish and black markings.
Scale is V-shaped for maximum readability.
- TUBE:** Lens front, blue spirit filled, non-toxic.
- STEM:** Brass.
- JAM NUT:** Brass.
- THERMOWELL:** Brass, 1/2" NPT, with 1-1/2" immersion length for pressurized systems.
- ACCURACY:** ±1 scale division.
- AMBIENT TEMPERATURE:** -40 to 140°F (-40 to 60°C).

Dimensions (in.)



Models & Ranges

Model	Style	Range	°F Scale		°C Scale	
			Fig.	Div.	Fig.	Div.
S531S	Straight	-40 to 110°F / -40 to 40°C	20°	2°	20°	2°
S551S	Straight	30 to 250°F / 0 to 115°C	50°	5°	50°	5°
S531A	Angle	-40 to 110°F / -40 to 40°C	20°	2°	20°	2°
S551A	Angle	30 to 250°F / 0 to 115°C	50°	5°	50°	5°

To Order

S 5 5 1 S
Model Number

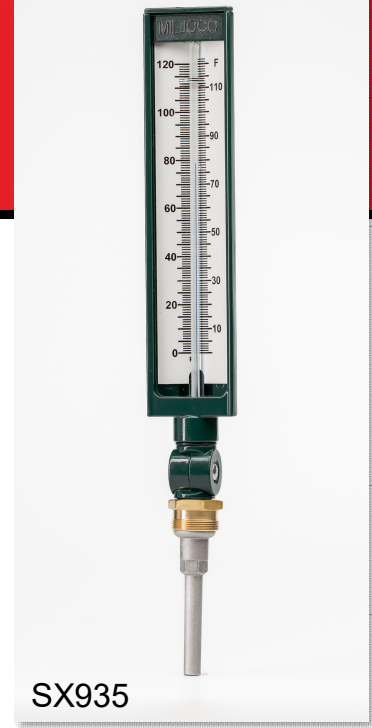
- Options**
- Lead-Free: S5-PBF Series



INDUSTRIAL THERMOMETER

7" & 9" Adjustable Angle – Spirit Fill

Miljoco liquid-in-glass thermometers are designed for commercial construction & industrial applications such as piping & air ducts. This instrument represents the accepted worldwide engineering standard for industrial thermometers with die cast aluminum case construction for rugged durability. The blue reading liquid fill with magnifying glass lens provides an accurate and quick response while maintaining environmental safety.



SX935

General Specifications

CASE: Precision die cast Aluminum. Green powder coat finish

LENS: Acrylic to 300°F, Glass above 300°F

SCALE: Aluminum with white finish with black markings, V-shaped for optimum readability

TUBE: Blue reading liquid fill with magnifying glass lens.

ADJUSTABLE FITTING: Finished to match the case and locked in place with a screw. Provides 180° adjustment in vertical lane and 360° adjustment in horizontal plane.

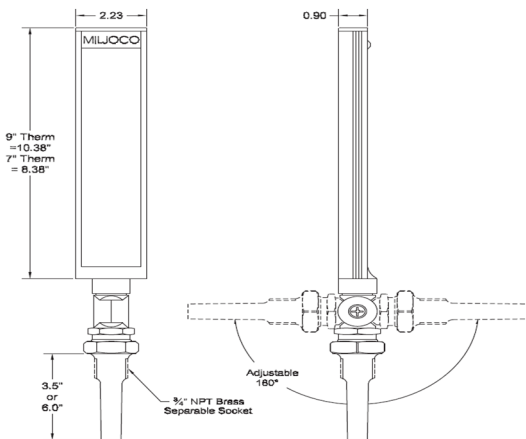
CONNECTION: 1-1/4"-18 UNF threaded brass coupling nut.

STEM: Aluminum, tapered to fit standard industrial thermowells, packed with heat transfer paste to provide maximum temperature response.

ACCURACY: ±1 scale division

AMBIENT TEMPERATURE: -40 to 140°F (-40 to 60°C).

Dimensions (in.)



Options

- Glass Lens
- Air-Duct Stem
- Brass Stem
- Stainless Steel Stem

Models

Model	Scale Size	Stem Length	Model	Scale Size	Stem Length
SX735	7"	3 1/2"	SX935	9"	3 1/2"
SX760	7"	6"	SX960	9"	6"

Ranges

Code	Range	°F Scale		°C Scale	
		Fig.	Div.	Fig.	Div.
30	-40 to 110°F	10°	2°	See Dual Scale Ranges Below	
35	0 to 120°F	10°	1°		
75	0 to 160°F	10°	2°		
77	30 to 180°F	10°	2°		
50	30 to 240°F	10°	2°		
60	30 to 300°F	10°	2°		
100	50 to 400°F	25°	5°		
97	-50 to 550°F	50°	5°		
31	-40 to 110°F / -40 to 40°C	20°	2°	10°	1°
36	0 to 120°F / -10 to 50°C	20°	1°	10°	1°
76	0 to 160°F / -15 to 70°C	10°	2°	5°	1°
88	30 to 180°F / 0 to 80°C	10°	2°	5°	1°
51	30 to 240°F / 0 to 115°C	20°	2°	10°	1°
61	30 to 300°F / 0 to 150°C	20°	2°	10°	1°
101	50 to 400°F / 10 to 205°C	50°	5°	10°	2°
102	50 to 550°F / 10 to 288°C	100°	5°	20°	2°

To Order

SX935

Model Number

50

Range Code



Test Plugs & Kits

MEASURING:
Pressure/temperature flow rate.

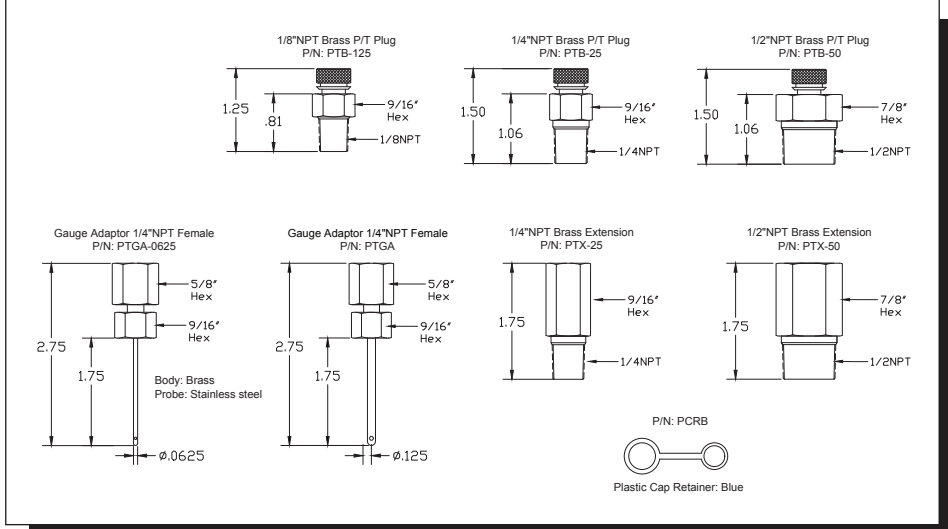
SAMPLING:
Retrieve samples without disrupting system.

BLEEDING:
Bleed air from A/C lines to increase efficiency.

ECONOMY:
Single set of gauges to test or sample all points.

EFFICIENCY:
Quickly move from point to point. Fingertip caps provide quick and easy access.

SECURITY: Testing equipment is not duplicated nor prone to vandalism, climate extremes or corrosive contaminants.

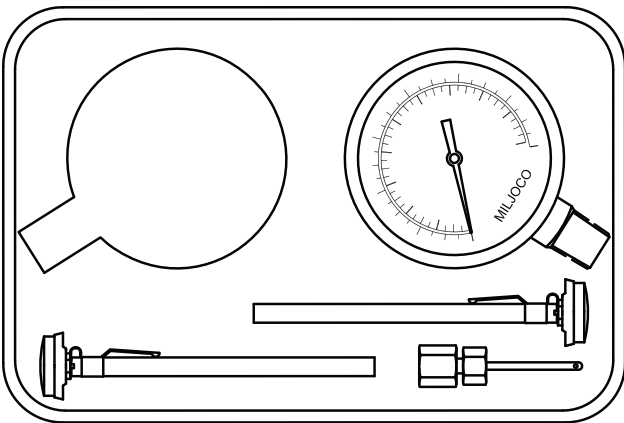


Test Kits

Model	Dial Size	Pressure Range
PTK-30-25	2½"	0-30 psi
PTK-30-35	3½"	0-30 psi
PTK-60-25	2½"	0-60 psi
PTK-60-35	3½"	0-60 psi
PTK-100-25	2½"	0-100 psi
PTK-100-35	3½"	0-100 psi
PTK-160-25	2½"	0-160 psi
PTK-160-35	3½"	0-160 psi
PTK-200-25	2½"	0-200 psi
PTK-300-35	3½"	0-200 psi

Each test kit consists of: (1) P2508L/P3508L ___, (1) B1098M82C-5.0, (1) B1098M95C-5.0, (1) PTGA, (1) Convenient Carrying Case

Options
 Lead-Free PBF Series



Test Plugs

Model	Body Material	Conn. Size	Core	Max. Temp.	Max. Pressure
PTB-25	Brass	1/4" NPT	Nordel	350°F (175°C)	1000 psi
PTB-50	Brass	1/2" NPT	Nordel	350°F (175°C)	1000 psi
PTB-125	Brass	1/8" NPT	Nordel	350°F (175°C)	1000 psi

Accessories

Model	Description	Material	Conn. Size	Length
PTX-25	Extension	Brass	1/4" NPT	1¼" OAL
PTX-50	Extension	Brass	1/2" NPT	1¼" OAL
PTGA	Gauge Adapter	SS	0.125	1¾"
PTGA-0625	Gauge Adapter	SS	0.0625	1¾"
PCRB	Cap Retainer	Plastic	-	-

Gauges / Thermometers

Model	Dial Size	Conn.	Stem Length	Range
P2508L03	2½"	1/4" NPT	N/A	0-30 psi
P2508L04	2½"	1/4" NPT	N/A	0-60 psi
P2508L05	2½"	1/4" NPT	N/A	0-100 psi
P2508L06	2½"	1/4" NPT	N/A	0-160 psi
P2508L07	2½"	1/4" NPT	N/A	0-200 psi
B1098M82C-5.0	1"	N/A	5"	0-220°F
B1098M95C-5.0	1"	N/A	5"	50-500°F

Front Flange & Rear Flange Case - 4" Dial Size

Miljoco vapor dial thermometers are manufactured to the highest standards for a wide range of uses and may be fitted into almost any temperature reading application. These instruments are ideal for obtaining readings from remote locations. Being vapor actuated, they are not subject to any ambient temperature variations along the tube system and give excellent readings both above and below ambient. Vapor instruments have progressive graduations and are best read in the upper two-thirds of the range. Many ranges are available between -40°F and 450°F. This series is furnished with a three-hole front flange for panel mounting or a three-hole rear flange for surface mounting.

General Specifications

- CASE:** 300 series stainless steel.
- RING:** 300 series stainless steel, threaded.
- LENS:** Glass.
- DIAL:** Aluminum with white finish and black markings.
- POINTER:** Black, adjustable.
- MOVEMENT:** Brass with precision gearing.
- BOURDON TUBE:** Phosphor bronze.
- ACCURACY:** ±One scale division.
- TUBE SYSTEM:**
 - CAPILLARY TUBING: 60" tin-plated copper (std.).
 - CONNECTION: Plain.
 - SENSING BULB: Nickel-plated copper bulb, Ø 7/16".*Other tube systems and capillary lengths available - see page 62.*
- AMBIENT TEMPERATURE:** -40 to 200°F (-40 to 93°C).

Models

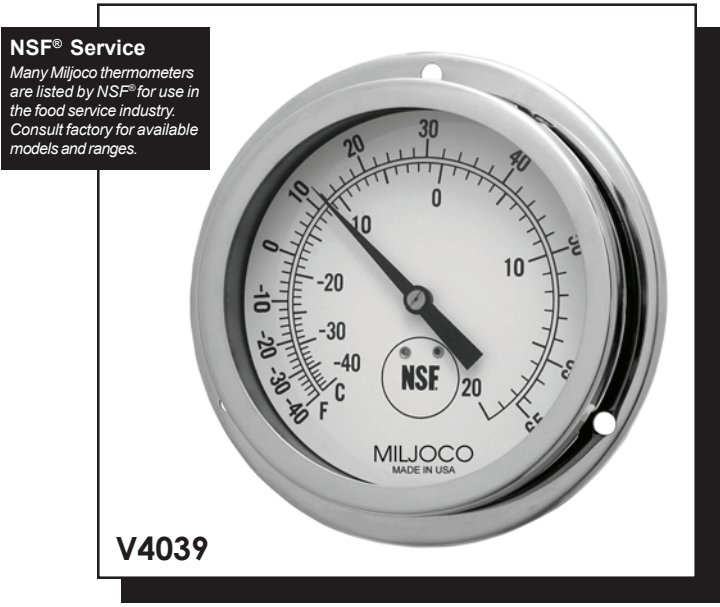
Model	Dial Size	Case Material	Outlet	Case Style
V4039	4"	SS	Rear	Front Flange
V4039L	4"	SS	Lower	Front Flange
V40149	4"	SS	Rear	Rear Flange
V40149L	4"	SS	Lower	Rear Flange

To Order

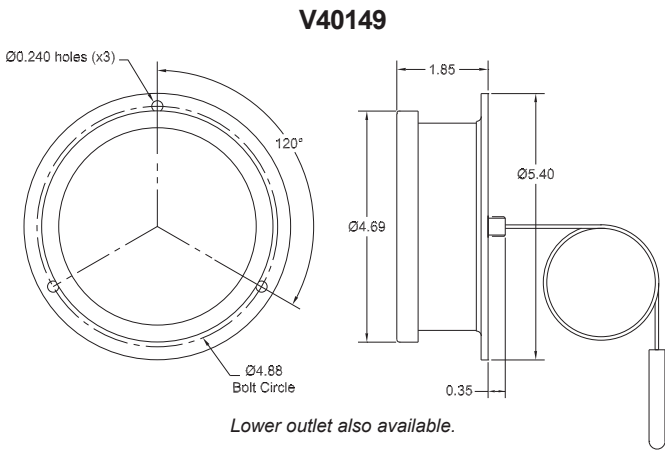
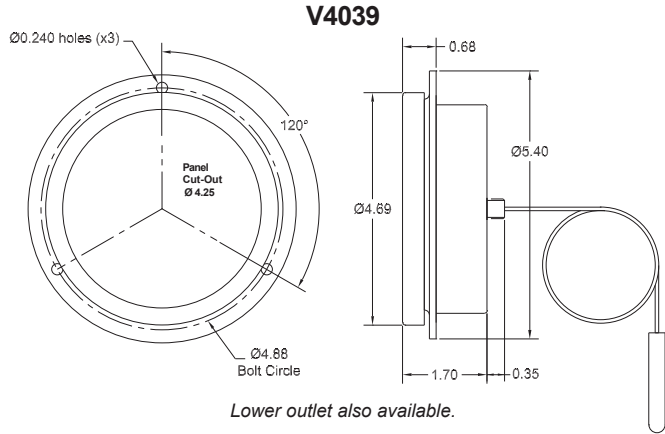
Select a **Model Number**, then see **Page 64** for temperature range and tube system selections.

Options

- Tubing Strain Relief
- Case Sealant
- Silicone Dampening
- Weephole
- Over Range Protection



Dimensions (in.)



To Order

V 3 5 6 7 A

Model Number

5 0

Range Code

1 4

Tube System Code

6 0

Capillary Length in Inches (omit if direct mount)

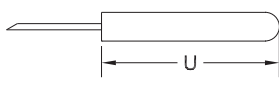
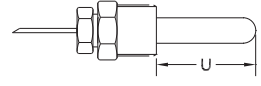
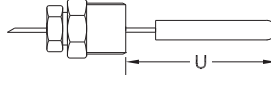
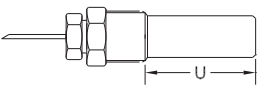
Specify Model Number from preceding pages, followed by Range and Tube System Codes from the tables below, followed by capillary length in inches.

Standard Ranges

Code	Range	°F		°C		Code	Range	°F		°C	
		Fig.	Div.	Fig.	Div.			Fig.	Div.	Fig.	Div.
22	-40 to 20°C	-	-	10	1	72	0 to 180°F	20	2	-	-
20	-40 to 65°F	-	-	10	2	73	0 to 180°F/C	20	2	20	2
21	-40 to 65°F/C	10	2	10	1	80	20 to 220°F	10	2	-	-
16	20 to 80°F	10	1	-	-	81	20 to 220°F/C	10	2	10	2
25	20 to 80°F/C	10	1	5	1	50	30 to 240°F	20	2	-	-
19	0 to 100°F	10	2	-	-	51	30 to 240°F/C	20	2	10	2
29	0 to 100°F/C	10	2	10	2	53	0 to 250°F	20	2	-	-
28	0 to 100°C	-	-	10	2	54	0 to 250°F/C	20	2	10	2
30	-40 to 110°F	20	2	-	-	56	50 to 250°F	20	2	-	-
31	-40 to 110°F/C	20	2	10	2	57	50 to 250°F/C	10	2	10	2
32	-20 to 120°F	20	2	-	-	60	30 to 300°F	10	1	-	-
33	-20 to 120°F/C	20	2	10	2	61	30 to 300°F/C	10	1	10	2
46	20 to 130°F	10	2	-	-	64	100 to 350°F	20	5	-	-
48	20 to 130°F/C	10	2	10	1	66	100 to 350°F/C	20	5	20	5
67	-40 to 150°F	10	2	-	-	70	200 to 450°F	20	2	-	-
49	0 to 150°F	20	2	-	-	71	200 to 450°F/C	20	2	20	2

Many ranges are NSF® listed for use in the food service industry. Special ranges, colors, logos and custom artwork is also available at nominal charge. Vapor thermometers have progressive graduations and are best read in the upper two-thirds of the scale. Care should be used to select a range that will locate the working temperature in this area. Other ranges are also available, consult factory.

Tube Systems

Type	Code	Capillary Tubing Material	Connection or Well Material	Sensing Bulb Material
 Plain Connection*	02	Tin Plated Copper	-	Nickel Plated Copper
	03	PVC Coated Copper	-	Nickel Plated Copper
	04	Bronze Braided Copper	-	Nickel Plated Copper
	05	Smooth 316SS	-	316SS
	08	Armored 316SS	-	316SS
 1/2" NPT Union Connection*	12	Tin Plated Copper	Brass	Nickel Plated Copper
	13	PVC Coated Copper	Brass	Nickel Plated Copper
	14	Bronze Braided Copper	Brass	Nickel Plated Copper
	15	Smooth 316SS	316SS	316SS
	18	Armored 316SS	316SS	316SS
 1/2" NPT Union Conn. with Extension*	32	Tin Plated Copper	Brass	Nickel Plated Copper
	33	PVC Coated Copper	Brass	Nickel Plated Copper
	34	Bronze Braided Copper	Brass	Nickel Plated Copper
	35	Smooth 316SS	316SS	316SS
	38	Armored 316SS	316SS	316SS
 1/2" NPT Thermowell*	22	Tin Plated Copper	Brass	Nickel Plated Copper
	23	PVC Coated Copper	Brass	Nickel Plated Copper
	24	Bronze Braided Copper	Brass	Nickel Plated Copper
	25	Smooth 316SS	316SS	316SS
	28	Armored 316SS	316SS	316SS

*See table on Page 65 for Sensing Bulb Dimensions.



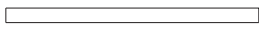
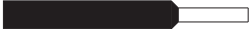

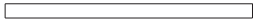

Bulbs, Tubing, and Optional Features

Sensing Bulb Dimensions

Range	Tube System Length	Bulb Diameter	Bulb Length	Notes
-40 to 65°F, -40 to 65°F/C	All	0.250"	2.0"	<i>For systems over 1200", consult factory. Bulb lengths of 4½" & 6" may be available on shorter systems, consult factory.</i>
All Others	Up to 120"	0.438"	2.5"	
	121" to 600"	0.438"	4.5"	
	601" to 1200"	0.438"	6.0"	

Capillary Tubing

The following connecting tubing types are used on vapor actuated dial thermometers in conjunction with the tube systems listed on the previous pages:

Type	Capillary Tubing Material
 Copper	Smooth Ø 0.062 tin plated copper capillary. This small diameter tubing can be easily formed without kinking or breaking. It is the material of choice in the food service industry and meets the requirements of NSF.
 PVC Covered	Smooth Ø 0.150 PVC covered Ø 0.062 copper capillary. This rugged, dielectric material is the ideal choice when the application requires bundling with other tubing, cable, or wiring. It meets the requirements of NSF and is the material of choice for commercial dishwashing and warewashing equipment.
 Bronze Braided	Bronze braided Ø 0.150 armor over Ø 0.062 copper capillary. This material is extremely durable, yet flexible, making it an excellent choice for applications where the capillary tubing will be exposed to extreme conditions. It can be ordered with nickel plating for use in food zones applications.
 316 Stainless Steel	Smooth Ø 0.062 type 316 stainless steel capillary. This small diameter tubing is flexible and provides chemical and corrosion resistance. It is an excellent choice for industrial processing or other applications where the capillary will be exposed to caustic or corrosive materials.
 316SS with 316SS Armor	Type 316 stainless steel Ø 0.250 interlocking armor over Ø 0.062 type 316 stainless steel capillary. This material is extremely rugged but has limited flexibility. It offers maximum protection against caustic or corrosive materials, and is ideal for applications where the tubing will be exposed to rough handling.

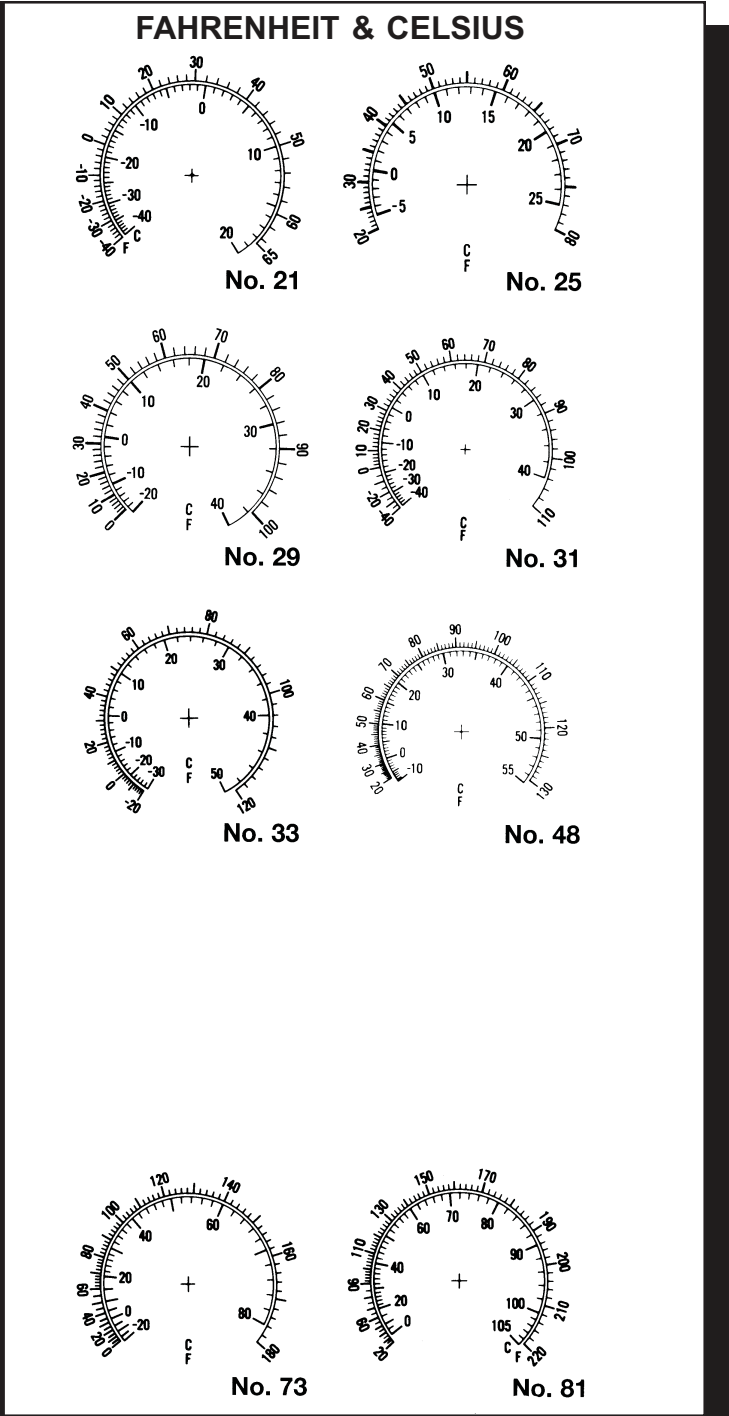
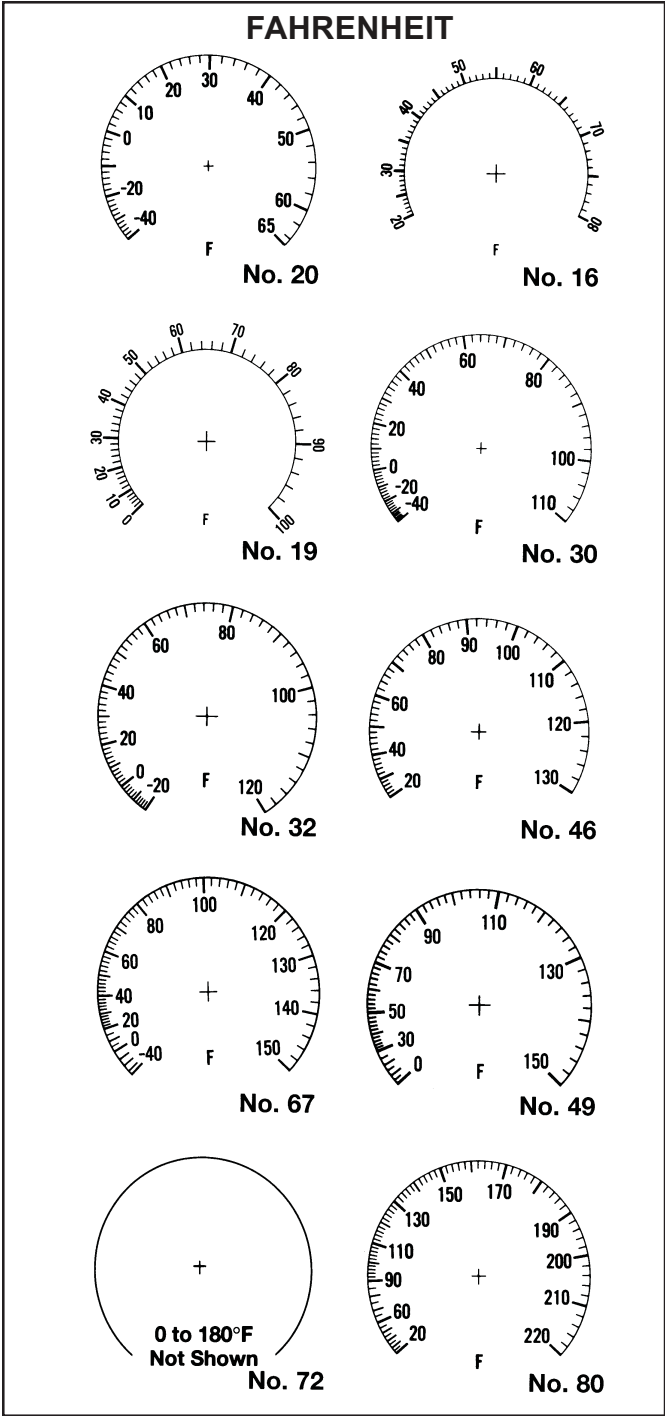
Optional Features

Code	Feature	Description
HS	Strain Relief at Case	Plastic boot installed at the case end of the capillary tubing to provide additional protection.
TS	Strain Relief at Bulb	Stainless steel round wire at the bulb end of the capillary tubing to provide additional protection.
SD	Silicone Dampening	Silicone grease applied to the movement mechanism to reduce wear in applications in which the instrument will be exposed to vibration.
WP	Lens O-Ring	O-ring seal installed on the lens (threaded type only) to help prevent moisture from entering the case from the front.
RTV	Case Sealant	RTV sealant applied around the rear connection opening to help prevent moisture from entering the rear of the case. Also prevents cold air from refrigeration equipment from entering the case and causing the lens to fog or frost.
WH	Weep Hole	Drain hole to allow drainage of the case in situations where moisture may collect in the bottom of the case. Useful in outdoor applications.
OR	Over Range Protection	The instrument should only be used within the range indicated on the dial. However, below-ambient ranges (e.g., -40 to 65°F) will be exposed to over ranging during shipment and storage. These instruments are furnished standard with over range protection. Additionally, many cross-ambient and above-ambient ranges can be provided with optional over range protection - consult factory when requesting this feature.

Specify the optional feature code when ordering.



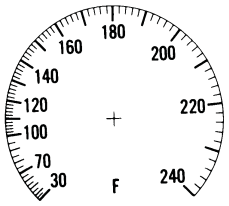
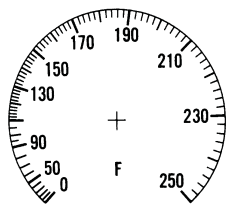
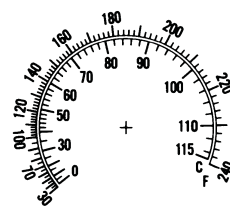
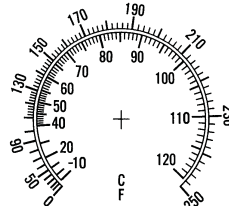
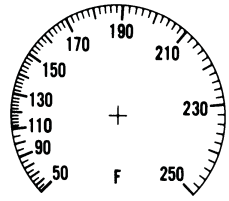
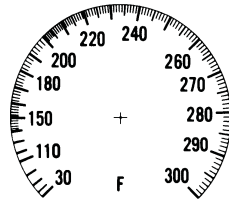
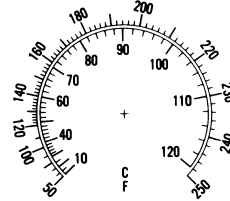
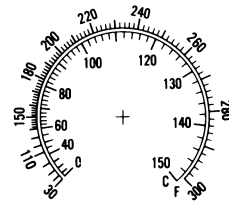
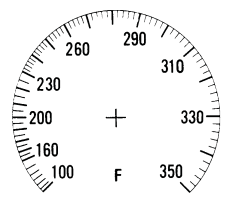
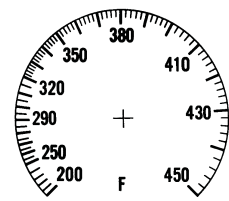
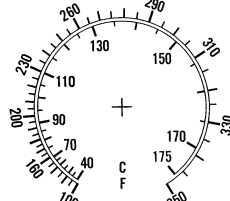
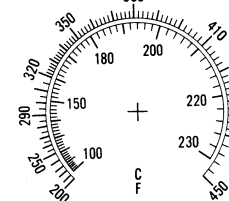
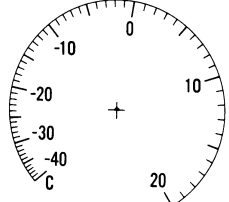
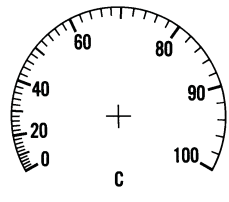
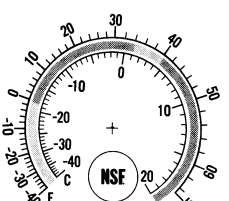
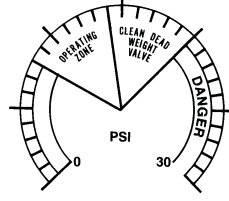
Standard Dial Faces



Standard ranges between -40°F and 450°F are offered in single and dual scales. Many are NSF® listed for use in food service applications. Vapor actuated thermometers have progressive graduations and are best read in the upper two-thirds of the measuring range, therefore, care should be exercised to select a range that will locate the working temperature in this area. Other ranges and special dials may be available - consult factory.



Standard Dial Faces

FAHRENHEIT		FAHRENHEIT & CELSIUS	
 No. 50	 No. 53	 No. 51	 No. 54
 No. 56	 No. 60	 No. 57	 No. 61
 No. 64	 No. 70	 No. 66	 No. 71
CELSIUS			
 No. 22			 No. 28
 No. 25	SPECIAL DIALS ARE AVAILABLE		 No. 29
<ul style="list-style-type: none"> • Multi Color Printing • Customer Name • Service Markings • Operating Colors Bands, Red for Hot, Blue for Cold, etc. 			

Standard ranges between -40°F and 450°F are offered in single and dual scales. Many are NSF® listed for use in food service applications. Vapor actuated thermometers have progressive graduations and are best read in the upper two-thirds of the measuring range, therefore, care should be exercised to select a range that will locate the working temperature in this area. Other ranges and special dials may be available - consult factory.

