## CI Series Bimetal Thermometers



## FEATURES

- 1\% full span accuracy ASME B40. 200 (ASME B40.3 Grade A)
- Maximum ambient temp. is $200^{\circ} \mathrm{F}\left(94^{\circ} \mathrm{C}\right)$
- Hermetically sealed case to prevent entry of moisture, interior corrosion and coil freeze-up.
- Tamper resistant.
- Maxivison ${ }^{\circledR}$ dial allows readability from any angle without parallax error.
- Silicone coil dampening (up to $400^{\circ}$ ) provides vibration dampening and improves response time.
- All-welded stainless steel construction
- Heavy-Duty glass Iens
- Protection NEMA 4X/IP66
- Five-year limited warranty


SPECIFICATIONS
Ashcroft ${ }^{\text {® }}$
Series: CI
Dial Sizes: 2," 3 ," 5 "
Stem Length: $21 / 2^{-2}-24^{\prime \prime}$ (1)
Case \& Stem: 304 stainless steel, hermetically
sealed
Stem Dia: $\quad 250^{\prime \prime}$
Window: Heavy-duty glass, plastic or shatter-
proof glass optional
Dial: Maxivision ${ }^{\oplus}$, black figures on white background
Pointer: Black
Connection: Plain, pointed plain, $1 / 4 \mathrm{NPT}, 1 / 2$ NPT
Connection
Location:
Lower, Rear
Ranges: $\quad-80 / 120^{\circ} \mathrm{F}-200 / 1000^{\circ} \mathrm{F}$
$-50 / 50^{\circ} \mathrm{C}-100 / 500^{\circ} \mathrm{C}$
Options: Code Description
C4 Individual calibration cert.
XCS Dual scale ${ }^{(2)}$
XDM Dial marking
XNH Stainless steel tag
XNN Paper tag
XPD Plastic window
XSG Shatter proof glass
X3B $3 / 8$ " stem dia. with $1 / 2$ NPT
X02 $1 / 4$ NPT when $1 / 2$ NPT is standard ${ }^{(3)}$
XS1 Silicone free
(1) Special or longer length available, consult factory
(2) Dual scale avilable with 3 " and 5 " case only
(3) Only available on rear connection

Thermowells must be used on all pressure or velocity applications, to protect the stem of thermometer from corrosion and physical damage, and to facilitate removal of the thermometer without disturbing the process. Maximum ambient temperature is $200^{\circ} \mathrm{F}\left(95^{\circ} \mathrm{C}\right)$.
ther

Dial Size: $3^{\prime \prime}$ Code 30 $\qquad$
Case Style: CI $\qquad$
Stem Connection: ½ NPT Code 60 $\qquad$
Stem Location: Rear Code R $\qquad$
Stem Length: 4" Code 040 $\qquad$
Range: Code $0 / 250^{\circ} \mathrm{F}$ $\qquad$
Options: Stainless steel tag

## CI Series Bimetal Thermometers

| CI Series selection table |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Case | Size |  | Stem |  |  | Stem Lengths Available |  |  | Temperature Range |  |  |  |  |  |
| Dial | Code | Style Code | Conn. | Code | Location | Code |  | Code | ${ }^{\circ}{ }^{\circ}$ * <br> Fahrenheit | \%Div. | Fig. Inter. | $\stackrel{\circ}{\circ} \mathrm{C}$ | \%Div. | Fig. Inter. |
| 2" | 20 | CI | Plain | 40 | Rear | R | $21 / 2$ |  | -80/120 | 2 | 20 | -50/50 | 1 | 10 |
|  |  |  | Pointed | 50 |  |  |  |  | -20/120† $\dagger$ |  |  | -20/120 | 2 | 20 |
|  |  |  | $1 / 4 \mathrm{NPT}$ | 60 |  |  |  |  | 30/130†t | 1 | 10 | 0/50† $\dagger$ | 1 | 5 |
| 3" | 30 |  | 1/2 NPT | 60 | Rear | R | 4 | 040 | 0/200 | 2 | 20 | 0/100 | 1 | 10 |
|  |  |  |  |  | Lower | L | $\begin{array}{r} 9 \\ 12 \end{array}$ | $\begin{aligned} & 060 \\ & 090 \\ & 120 \end{aligned}$ | 0/250 |  | 50 | 10/150 | 2 | 20 |
|  |  |  |  |  |  |  |  |  | 50/300 |  |  | 0/200 |  |  |
|  | 50 |  | 112 NPT | 60 | Rear | R | 15 | 150 | 50/400 | 5 | 50 | 0/300†† | 5 | 50 |
|  |  |  |  |  |  |  | 18 | 180 | 50/550 |  |  | 50/450** $\dagger$ |  |  |
| 5" |  |  |  |  |  |  | 24 | 240 | 200/700† |  |  | 100/500** $\dagger$ |  |  |
|  |  |  |  |  | Lower | L |  |  | 100/800 $\dagger$ |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 200/1000** $\dagger$ | 10 | 100 |  |  |  |


| CI Dimensions |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Case <br> Series | $\begin{array}{\|l\|} \hline \text { Dial } \\ \text { Size } \\ \hline \end{array}$ | Connection Location | A | B | C | D | E | S | NPT | Hex | Weight in ounces ${ }^{(3)}$ |
|  |  |  |  |  |  |  |  |  |  |  | S - $21 / 2^{\prime \prime}$ |
| CI | 2" | $\begin{aligned} & \text { Rear } \\ & \text { (Plain) } \end{aligned}$ | $\begin{aligned} & 23 / 22 \\ & (53) \\ & \hline \end{aligned}$ | $\begin{gathered} 3 / 8 \\ (10) \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (8) \end{gathered}$ | - | - | $-^{(2)}$ | - | 11/16 | 41/2 |
| $\overline{\text { CI }}$ | 2" | $\begin{aligned} & \text { Rear (Plain, } \\ & \text { pointed stem) } \end{aligned}$ | $\begin{array}{r} 23 / 2 \\ (53) \\ \hline \end{array}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { 5/16 } \\ & (8) \end{aligned}$ | - | - | $\square^{(2)}$ | - | 11/16 | 41/2 |
| $\overline{\text { CI }}$ | 2" | Rear (Threaded) | $\begin{aligned} & 23 / 22 \\ & (53) \\ & \hline \end{aligned}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 3 / 8 \\ & (8) \end{aligned}$ | - | - | $-^{(2)}$ | 1/4 | 11/16 | 41/2 |
| $\overline{\text { CI }}$ | 3" | Rear | $\begin{aligned} & 35 / 2 \\ & (80) \end{aligned}$ | $\begin{aligned} & 19 / 2 \\ & (15) \end{aligned}$ | $\begin{aligned} & 3 / 8 \\ & (8) \end{aligned}$ | - | - | $-^{(2)}$ | 1/2 | 7/8 | 7 |
| $\overline{\text { CI }}$ | 3" | Lower | $\begin{aligned} & 35 / 2 \\ & (80) \end{aligned}$ | $\begin{aligned} & 1^{2 / 32} \\ & (47) \end{aligned}$ | - | $\begin{gathered} \hline 25 / 8 \\ (67) \end{gathered}$ | (6) | $-^{(2)}$ | 1/2 | 7/8 | 11 |
| $\overline{\text { CI }}$ | 5" | Rear | $\begin{gathered} \hline 51 / 32 \\ (128) \end{gathered}$ | $\begin{aligned} & 23 / 2 \\ & (18) \end{aligned}$ | $\begin{gathered} 3 / 8 \\ (8) \end{gathered}$ | - | - | $-^{(2)}$ | 1/2 | 7/8 | 16 |
| $\overline{\text { CI }}$ | 5" | Lower | $\begin{gathered} \hline 51 / 32 \\ (128) \end{gathered}$ | $\begin{aligned} & 1^{151 / 16} \\ & (49) \end{aligned}$ | - | $\begin{gathered} \hline 35 \\ (92) \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \end{aligned}$ | $-^{(2)}$ | 1/2 | 7/8 | 26 |

CI Series dual scale ranges
Dual scales are available in $3^{\prime \prime}$ and $5^{\prime \prime}$ dial sizes in the following ranges:

| Inner |  | Outer |
| ---: | :--- | :---: |
| $-80 / 120^{\circ} \mathrm{F}$ | and | $-60 / 50^{\circ} \mathrm{C}$ |
| $-40 / 120^{\circ} \mathrm{F}$ | and | $-40 / 50^{\circ} \mathrm{C}$ |
| $-40 / 160^{\circ} \mathrm{F}$ | and | $-40 / 70^{\circ} \mathrm{C}$ |
| $-20 / 120^{\circ} \mathrm{F}$ | and | $-30 / 50^{\circ} \mathrm{C} \dagger \dagger$ |
| $0 / 200^{\circ} \mathrm{F}$ | and | $-20 / 90^{\circ} \mathrm{C}$ |
| $0 / 250^{\circ} \mathrm{F}$ | and | $-20 / 120^{\circ} \mathrm{C}$ |
| $30 / 130^{\circ} \mathrm{F}$ | and | $0 / 55^{\circ} \mathrm{C} \dagger \dagger$ |
| $50 / 300^{\circ} \mathrm{F}$ | and | $10 / 150^{\circ} \mathrm{C}$ |
| $50 / 400^{\circ} \mathrm{F}$ | and | $10 / 200^{\circ} \mathrm{C}$ |
| $50 / 550^{\circ} \mathrm{F}$ | and | $10 / 290^{\circ} \mathrm{C}$ |
| $100 / 800^{\circ} \mathrm{F}$ | and | $50 / 400^{\circ} \mathrm{C} \dagger$ |
| $200 / 700^{\circ} \mathrm{F}$ | and | $100 / 370^{\circ} \mathrm{C} \dagger$ |
| $200 / 1000^{\circ} \mathrm{F}$ | and | $100 / 550^{\circ} \mathrm{C}{ }^{* *} \dagger$ |


| Overtemperature limits |  |
| :---: | :---: |
| Top of Range ${ }^{\circ} \mathrm{F}$ | Maximum <br> Over Temperature |
| up to 250 | $100 \%$ of span |
| $251 / 550$ | $50 \%$ of span |
| $551 / 1000$ | $800^{\circ} \mathrm{F}^{* \star}$ |

*Dual scale ranges available for all standard ${ }^{\circ} \mathrm{F}$ ranges ( $3^{\prime \prime}$ and $5^{\prime \prime}$ case only)
**Satisfactory for continuous service up to $800^{\circ} \mathrm{F}$ or $425^{\circ} \mathrm{C}$. Can be used for intermittent service from 800 to $1000^{\circ} \mathrm{F}$, or 425 to $500^{\circ} \mathrm{C}$. Use Ashcroft Duratemp ${ }^{\circledR}$ thermometers for ranges above and below those listed above.
$\dagger$ Minimum stem length for these ranges is 4 ".
$\dagger \dagger$ Minimum stem length for lower connection is 4 ".

## NOTES:

1. Figures in parenthesis ( ) are in millimeters. All other dimensions are in inches.
2. Standard " $S$ " dimensions are $21 / 2,4,6,9,12,15,18$ and 24 inches. Standard stem diameter is $1 / 4$ inch.
3. Add $10 z$. for every 2 inches of stem length.

## DIMENSIONS



Ashcroft Inc., 250 East Main Street, Stratford, CT 06614 USA Tel: 203-378-8281 • Fax: 203-385-0408
email: info@ashcroft.com • www.ashcroft.com

