### **Data Sheet**



### **CI Bimetal Thermometer**

### **FEATURES**

- Hermetically sealed case to prevent entry of moisture, interior corrosion and coil freeze up
- Maxivision® dial for precise readings (minimize parallax reading errors)
- Silicone dampened coil for reduction of pointer flutter on high vibration applications and provides improved response times
- Customized dial printing

### **TYPICAL USES**

- General Industrial
- HVAC
- Equipment Skids
- Pharmaceutical / Biotech
- Food and Beverages



CI Bimetal 2", 3", 5" dial sizes





### **SPECIFICATIONS**

Accuracy:  $\pm 1\%$  of span ASME B40.200 (B40.3 Grade A)

Stem Length: 2½" to 24" Dial Sizes: 2", 3", 5"

Dial Style: Maxivision®, black figures on white background

Overtemperature Limits:

Top of Range °F up to 250 251-550 Max. Over Temperature 100% of span

251-550 50% of span 551-1,000 800°F<sup>(1)</sup>

(1) Satisfactory for continuous service up to 800°F (425°C). Can be used for intermittent service from 800 to 1,000°F (425 to 500°C). Use Ashcroft Duratemp® thermometers for ranges above and below those listed above.

Process Connection: Plain, Pointed Stem, ¼ NPT, ½ NPT

Stem diameter: 0.250", .375"

Case & Stem: 304 SS, Hermetically sealed

Process Connection 2": Rear

Location: 3", 5": Lower, rear

Pointer: Black

Window: Glass, Acrylic, Safety Glass

Approvals: RoHS

#### **CAUTION**

Thermowells should be used on all pressurized applications over 15 psi, to protect the thermometer from corrosion or physical damage, and to facilitate removal of the thermometer without disturbing the process.

### **KEY BENEFITS**

- Tamper resistant case
- NEMA 4X/IP66 protection
- 5-year limited warranty
- All welded stainless steel construction

MIN/MAX TEMPERATURE LIMITS						
Version	Ambient					
Dry	-40°F to 200°F (-40°C to 93°C)					

# **Data Sheet**

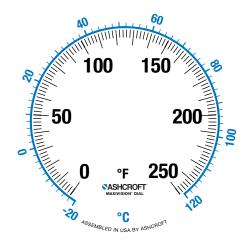


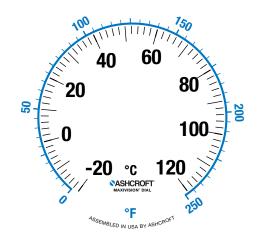
# **CI Bimetal Thermometer**

Dial Size and Model   2001 - 2" Tamper resistant bimetal   3001   3001 - 3" Tamper resistant bimetal   3001 - 3001 - 3" Tamper sistant bimetal   3001 - 3" Tamper sistant bimetal   3001 - 3"	ORDERING CODE	Example:	300	I 60	R	060	XSG	0/200F
30Cl - 3" Tamper resistant birnetal   30Cl	Dial Size and Model							
50Cl - 5" Tamper resistant bimetal  Stem and Connection 40 - Plain - no connection 50 - Pointed stem - no connection (2" case only) 60 - ½ Fixed NPT for 3" & 5" but ½ fixed NPT for 2" 60  Connection Location  R - Rear connection (Not available on 2" case)  Stem Length (Consult factory for custom or longer stem length) 025 - 2½" 040 - 4" 060 - 6" 060 090 - 9" 120 - 12" 150 - 15" 180 - 18" 240 - 24"  Options - (if choosing an option(s) must include an "X")  X  CS - Dual scale  DM - Dial marking NH - Stainless steel tag PD - Plastic window  GG - Shatterproof glass  GG C4 - Individual calibration certification S1 - Silicone free 38 - ½" stem cliameter with ½ NPT 02 - ½ NPT (only available on rear connection) Temperature Ranges (see table on page 3)	20CI - 2" Tamper resistant bimetal							
Stem and Connection	30Cl - 3" Tamper resistant bimetal		300	1				
40 - Plain - no connection  50 - Pointed stem - no connection (2" case only)  60 - ½ Fixed NPT for 3" & 5" but ¼ fixed NPT for 2"  60  Connection Location  R - Rear connection  L - Lower connection (Not available on 2" case)  Stem Length (Consult factory for custom or longer stem length)  025 - 2½"  040 - 4"  060 - 6"  060 090 - 9"  120 - 12"  150 - 15"  180 - 18"  240 - 24"  Options - (if choosing an option(s) must include an "X")  X	50Cl - 5" Tamper resistant bimetal							
50 - Pointed stem - no connection (2" case only) 60 - ½ Fixed NPT for 3" & 5" but ½ fixed NPT for 2" 60  Connection Location R - Rear connection R - Rear connection (Not available on 2" case)  Stem Length (Consult factory for custom or longer stem length) 025 - 2½ 040 - 4" 060 - 6" 060 090 - 9" 120 - 12" 150 - 15" 180 - 18" 240 - 24"  Options - (if choosing an option(s) must include an "X")  CS - Dual scale  DM - Dial marking NN - Stainless steel tag PD - Plastic window SG - Shatterproof glass SG C4 - Individual calibration certification S1 - Silicone free 38 - ¾ stern diameter with ½ NPT 02 - ½ NPT (only available on rear connection) Temperature Ranges (see table on page 3)	Stem and Connection							
60 - ½ Fixed NPT for 3° & 5° but ¼ fixed NPT for 2°  Connection Location  R - Rear connection (Not available on 2° case)  Stem Length (Consult factory for custom or longer stem length)  025 - 2½°  040 - 4°  060 - 6°  060  090 - 9°  120 - 12°  150 - 15°  180 - 18°  240 - 24°  Options - (if choosing an option(s) must include an "X")  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  SG  C4 - Individual calibration certification  S1 - Silicone free  3B - ¾ stern diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	40 - Plain - no connection				_			
Connection Location  R - Rear connection (Not available on 2' case)  Stem Length (Consult factory for custom or longer stem length)  025 - 2½''  040 - 4"  060 - 6"  060  090 - 9"  120 - 12"  150 - 15"  180 - 18"  240 - 24"  Options - (if choosing an option(s) must include an "X")  X  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  SG  C4 - Individual calibration certification  S1 - Silicone free  38 - %" stem diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	50 - Pointed stem - no connection (2" case only)				_			
R - Rear connection R L - Lower connection (Not available on 2' case)  Stem Length (Consult factory for custom or longer stem length)  025 - 2½  040 - 4'  060 - 6' 060  990 - 9'  120 - 12'  150 - 15'  180 - 18'  240 - 24'  Options - (if choosing an option(s) must include an "X")  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  SG  C4 - Individual calibration certification  \$1 - Silicone free  38 - ¾' stem diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	60 - 1/2 Fixed NPT for 3" & 5" but 1/4 fixed NPT for 2"			60				
L - Lower connection (Not available on 2' case)  Stem Length (Consult factory for custom or longer stem length)  025 - 21/7  040 - 4"  060 - 6"  060  990 - 9"  120 - 12"  150 - 15"  180 - 18"  240 - 24"  Options - (if choosing an option(s) must include an "X")  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  SG  C4 - Individual calibration certification  \$1 - Silicone free  3B - %" stem diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	Connection Location							
Stem Length (Consult factory for custom or longer stem length)  025 - 21/6*  040 - 4"  060 - 6"  060  090 - 9"  120 - 12"  150 - 15"  180 - 18"  240 - 24"  Options - (if choosing an option(s) must include an "X")  X  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  SG  C4 - Individual calibration certification  S1 - Silicone free  3B - % stem diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	R - Rear connection				R			
025 - 2½  040 - 4"  060 - 6"  060  090 - 9"  120 - 12"  150 - 15"  180 - 18"  240 - 24"  Options - (if choosing an option(s) must include an "X")  X  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  SG  C4 - Individual calibration certification  S1 - Silicone free  3B - ¾ stem diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	L - Lower connection (Not available on 2" case)							
040 - 4" 060 - 6" 060 - 6" 060 090 - 9" 120 - 12" 150 - 15" 180 - 18" 240 - 24"  Options - (if choosing an option(s) must include an "X")  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  SG C4 - Individual calibration certification  S1 - Silicone free  3B - %" stem diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	Stem Length (Consult factory for custom or longer stem length)					-		
060 - 6" 060  090 - 9"  120 - 12"  150 - 15"  180 - 18"  240 - 24"  Options - (if choosing an option(s) must include an "X")  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  SG  C4 - Individual calibration certification  S1 - Silicone free  3B - %" stem diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	025 - 21/2"							
120 - 12" 150 - 15" 180 - 18" 240 - 24"  Options - (if choosing an option(s) must include an "X")  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  SG  C4 - Individual calibration certification  S1 - Silicone free  3B - %" stem diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	040 - 4"							
120 - 12"  150 - 15"  180 - 18"  240 - 24"  Options - (if choosing an option(s) must include an "X")  X  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  SG  C4 - Individual calibration certification  S1 - Silicone free  3B - %" stem diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	060 - 6"					060		
150 - 15"  180 - 18"  240 - 24"  Options - (if choosing an option(s) must include an "X")  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  SG  C4 - Individual calibration certification  S1 - Silicone free  3B - 3" stem diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	090 - 9″							
180 - 18"  240 - 24"  Options - (if choosing an option(s) must include an "X")  X  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  SG  C4 - Individual calibration certification  S1 - Silicone free  3B - %" stem diameter with ½ NPT  02 - ¼ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	120 - 12"							
Options - (if choosing an option(s) must include an "X")  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  C4 - Individual calibration certification  S1 - Silicone free  38 - %" stem diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	150 - 15"							
Options - (if choosing an option(s) must include an "X")  CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  C4 - Individual calibration certification  S1 - Silicone free  38 - 3/" stem diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	180 - 18″							
CS - Dual scale  DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  SG  C4 - Individual calibration certification  S1 - Silicone free  3B - ¾ stem diameter with ½ NPT  02 - ¼ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	240 - 24"							
DM - Dial marking  NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  C4 - Individual calibration certification  S1 - Silicone free  3B - %" stem diameter with ½ NPT  02 - ½ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	Options - (if choosing an option(s) must include an "X")						X	
NH - Stainless steel tag  PD - Plastic window  SG - Shatterproof glass  C4 - Individual calibration certification  S1 - Silicone free  3B - ¾" stem diameter with ½ NPT  02 - ¼ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	CS - Dual scale							
PD - Plastic window  SG - Shatterproof glass  C4 - Individual calibration certification  S1 - Silicone free  3B - ¾″ stem diameter with ½ NPT  02 - ¼ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	DM - Dial marking							
SG - Shatterproof glass C4 - Individual calibration certification S1 - Silicone free 3B - ¾" stem diameter with ½ NPT 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see table on page 3)	NH - Stainless steel tag							
C4 - Individual calibration certification S1 - Silicone free 3B - ¾" stem diameter with ½ NPT 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see table on page 3)	PD - Plastic window							
S1 - Silicone free  3B - ¾ stem diameter with ½ NPT  02 - ¼ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	SG - Shatterproof glass						SG	
3B - ¾" stem diameter with ½ NPT  02 - ¼ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	C4 - Individual calibration certification							
02 - ¼ NPT (only available on rear connection)  Temperature Ranges (see table on page 3)	S1 - Silicone free							
Temperature Ranges (see table on page 3)	3B - ¾" stem diameter with ½ NPT							
	02 - 1/4 NPT (only available on rear connection)							
0/200°F 0/200°F	Temperature Ranges (see table on page 3)							
	0/200°F							0/200°F



# **CI Bimetal Thermometer**





	Fahrenheit	Inner Range
Inner °F	Outer °C	Restrictions
-100/100	-70/40	
-80/120	-60/50	
-50/200	-40/93	
-50/250	-40/120	
-40/120	-40/50	
-40/160	-40/70	
-20/120	-30/50	
0/100	-20/40	
0/150	-20/65	
0/200	-20/93	
0/250	-20/120	
0/300	-20/150	
0/350	-20/170	
0/500	-20/260	
20/120	-5/50	4" Min for Everyangle™ and Lowers only
30/130	0/55	4" Min for Everyangle™ and Lowers only
30/240	0/115	
50/300	10/150	
50/400	10/200	
50/550	10/290	
0/700	-20/370	4" minimum
100/800	50/430	4" minimum
150/750	65/395	4" minimum
200/700	100/370	4" minimum
200/1000	100/550	4" minimum Satisfactory continuous service from 800° F or 426° C Intermittent service from 800° to 1000° F or 425° C to 500° C

	Celsius	Inner Range
Inner °C	Outer °F	Restrictions
-50/50	-50/120	
-50/180	-50/350	
-40/100	-40/210	
-40/160	-40/320	
-30/70	-20/160	
-20/180	0/350	
-20/120	0/250	
-10/50	20/120	
-10/110	20/230	
0/60	30/140	
0/100	30/210	
0/120	30/250	
0/150	30/300	
0/200	30/400	
0/250	30/480	
0/300	30/570	
10/150	50/300	
0/400	30/750	4" minimum
0/500	30/390	4" minimum
50/450	120/840	4" minimum Satisfactory continuous service from 800° F or 426° C Intermittent service from 800° to 1000° F or 425° C to 500° C
100/500	220/930	4" minimum Satisfactory continuous service from 800° F or 426° C Intermittent service from 800° to 1000° F or 425° C to 500° C

# **Data Sheet**



# **CI Bimetal Thermometer**

Single Scale Ranges								
	Restrictions	۴	°C	Restrictions				
		-100/100						
		-80/120						
		-50/200	-50/50					
		-50/250	-50/180					
		-40/120	-40/100					
		-40/160	-40/160					
		-20/120	-30/70					
	4" Min for Lowers only	0/100	-20/180					
		0/150	-10/50					
eq		0/200	-10/110					
Ē		0/250	0/50					
Can be Liquid filled		0/300	0/60	4" Min for Lowers only				
n be		0/500	0/100					
S	4" Min for Lowers only	20/120	0/120					
	4" Min for Lowers only	30/130	0/150					
		30/240	0/200					
		50/300	0/250					
		50/400	0/300					
		50/550	10/150					
	4" minimum	0/700	0/400	4" minimum				
	4" minimum	100/800	0/500	4" minimum				
	4″ minimum	150/750	50/450	4" minimum Satisfactory continuous service from 800°t or 426°C. Intermittent service from 800° to 1,000°F or 425°C to 500°C				
	4" minimum	200/700	100/500	4" minimum Satisfactory continuous service from 800° or 426°C. Intermittent service from 800° to 1,000°F or 425°C to 500°C				
	4" minimum Satisfactory continuous service from 800°F or 426° C. Intermittent service from 800° to 1,000°F or 425°C to 500°C	200/1000						



# **CI Bimetal Thermometer**

### **DIMENSIONS** in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

Dial Size (Inches)	Process Connection Locations	Α	В	С	D	E	s	NPT	Hex.	Weight (oz) <sup>(1)</sup> S - 2½″
2	Rear (Plain)	23/32 [53]	3/8 [10]	³⁄8 [10]			(2)		11/16	41/2
2	Rear (Plain, pointed stem)	23/32 [53]	3/8 [10]	³/ <sub>8</sub> [10]			(2)		11/16	41/2
2	Rear (Threaded)	23/32 [53]	3/8 [10]	³⁄8 [10]			(2)	1/4	11/16	41/2
3	Rear	35/32 [80]	<sup>19</sup> ⁄ <sub>32</sub> [15]	¾ [10]			(2)	1/2	7/8	7
3	Lower	35/32 [80]	1 <sup>27</sup> / <sub>32</sub> [47]		25/8 [67]	½ [6]	(2)	1/2	7/8	11
5	Rear	5½ [128]	<sup>23</sup> / <sub>32</sub> [18]	¾ [10]			(2)	1/2	7/8	16
5	Lower	5½ [128]	1 <sup>15</sup> ⁄16 [49]		35/8 [92]	½ [6]	(2)	1/2	7/8	26

#### NOTES:

- 1. Add 1 oz. for every 2" inches of stem length
- 2. "S" dimensions are  $2\frac{1}{2}$ , 4, 6, 9, 12, 15, 18 and 24" (STD.). Stem diameter is  $\frac{1}{4}$ " (STD.)

