

## Data Sheet

# C-600A-02 Duratemp® Thermometer

### FEATURES

- Extreme resistance to shock and vibration
- Exclusive movementless design eliminates wear and increases product life
- No head or elevation error due to bulb placement
- Maxivision® dial for precise readings (minimize parallax reading errors)
- Multiple case sizes 4½", 6", 8½" back connection, flush mounted for panel mounting
- Gas-operated molecular sieve

### TYPICAL USES

- Offshore oil rigs
- Chemical and petrochemical plants
- Water and wastewater temperature control
- Pulp and paper
- Refineries
- Power
- General industrial
- Equipment skids
- HVAC
- Pharmaceutical/biotech
- Food and beverage



**C-600A-02**

4½", 6", 8½" dial sizes

### SPECIFICATIONS

Accuracy:	±1% of span
Sizes:	4½", 6" or 8½"
Range:	-320°F/200°F to 400°F/1200°F (-200°C/100°C to 200°C/650°C)
Over Range:	125% of span
Mounting & Connection:	Flush/Rear
Bulb Size:	3" Long x ⅜" O.D.
Bulb Style:	12" Bendable extension with ½ NPT union connection Plain bulb with rigid extension no union Plain bulb with rigid extension ½ NPT union on armor 18" Bendable extension with ½ NPT union connection 24" Bendable extension with ½ NPT union connection
Line Length:	5ft to 80ft in standard increments
Dial:	Maxivision® anti-parallax dial, black markings on a white dial
Head/Elevation Error:	None
Hand Set:	Stationary red hand set or Externally adjustable Red set hand
Pointer:	Black, aluminum
Electric Contacts:	High and low, double high, double low, off at low or high and on in-between

### KEY BENEFITS

- Epoxy coated aluminum case
- Hinged ring for easy glass replacement or pointer adjustment
- Extremely versatile for use on many applications
- 5 year limited warranty
- Ideal for extreme process temperatures

### THERMAL SYSTEM

Bulb/Bendable ext. Material	Armor Material	Capillary Material	Connection Material
316 SS	AISI 302 Spring Armor	316 SS	303 SS

### NON-WETTED COMPONENTS

Window	Case	Ring
Glass, Safety glass, Acrylic	Aluminum	Aluminum hinged ring

### TEMPERATURE LIMITS

Version	Ambient
Dry	-13°F (-25°C) to 160°F (71°C)

# Data Sheet

## C-600A-02 Duratemp<sup>®</sup> Thermometer

ORDERING CODE	Example:	C-600A-02-C12	B01	A1	L01	AB	-XSG
<b>Case Style</b>							
C-600A-02-C12 - 4½" Case size, aluminum hinged ring, flush mount, rear conn.		C-600A-02-C12					
C-600A-02-C27 - 6" Case size, aluminum hinged ring, flush mount, rear conn.							
C-600A-02-C35 - 8½" Case size, aluminum hinged ring, flush mount, rear conn.							
<b>Bulb Style - (Note 1)</b>							
B01 - 12" Bendable extension with ½ NPT union connection			B01				
B03 - Plain bulb with rigid extension, no union							
B08 - Plain bulb with rigid extension, ½ NPT union on armor							
B17 - 18" Bendable extension with ½ NPT union connection							
B18 - 24" Bendable extension with ½ NPT union connection							
<b>Armor Style</b>							
A1 - SS spring				A1			
<b>Line Length (Capillary length is measured from bottom of case to top of bulb extension)</b>							
L01 - 5'					L01		
L03 - 10'							
L07 - 20'							
L09 - 30'							
L13 - 50'							
L19 - 80'							
<b>Ranges (coding example, see range table on page 3 for all standard ranges)</b>							
AB - -320/200°F						AB	
<b>Options (If choosing an option(s) must include an "X")</b>							
CS - Dual scale							-X _ _
DM - Dial marking							
ED - High and low electric contacts							
EE - Double high electric contacts							
EF - Double low electric contacts							
EG - Electric contacts off at low or high and on in-between							
EO - Externally adjustable red set hand							
EP - Externally adjustable maximum pointer							
EQ - Externally adjustable minimum pointer							
NH - SS tag							
PD - Acrylic window							
SG - Shatterproof glass							SG
SH - Stationary red set hand							
TK - Tank car thermometer (Only available on C-600A-02-C35)							

### NOTES

1. Minimum recommended insertion length ("u" dimension) in liquids is 4 inches and in gases is 6 inches for standard ⅜ × 3" bulb.
2. Thermowells must be used on any application where the bulb of the thermometer may be exposed to pressure, corrosive fluids, or velocity. Additionally, the use of a thermowell permits instrument interchangeability or recalibration without shutting down the process.

# Data Sheet

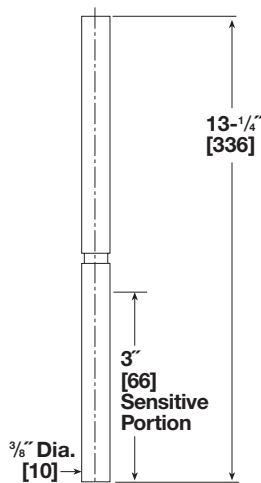
## C-600A-02 Duratemp® Thermometer

SINGLE RANGES			
Range Code		Range Code	
AB	-320°F/200°F	AY	-200°C/100°C
AE	-100°F/100°F	BL	-80°C/40°C
AG	-40°F/180°F	BN	-40°C/80°C
AK	20°F/240°F	BS	0°C/120°C
AL	50°F/300°F	BT	10°C/150°C
AN	50°F/550°F	BU	0°C/300°C
AR	50°F/750°F	BW	0°C/400°C
AT	400°F/1,200°F	BJ	200°C/650°C

DUAL RANGES	
Range Code	
CE	0°C/120°C and 20°F/240°F
CF	0°C/300°C and 50°F/550°F
DR	10°C/150°C and 50°F/300°F
DT	-40°C/80°C and -40°F/180°F

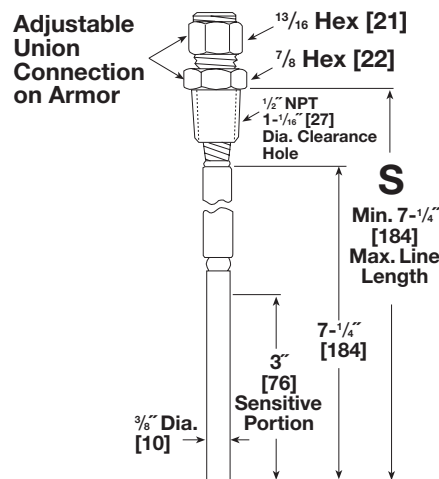
### DIMENSIONS in [ ] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings



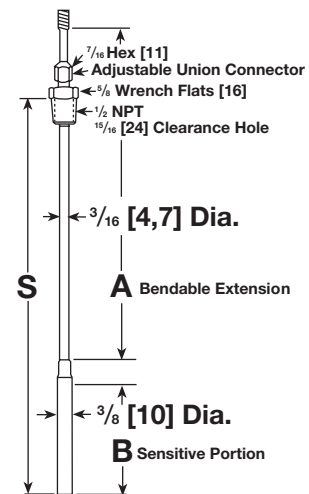
#### Style B03

13" plain bulb for applications used in open tanks where pressures and velocities are negligible



#### Style B08

The compression fitting fastens anywhere along the armored line. This Bulb Style is well suited for insertion requirements in excess of 13 1/2". The B08 style is not a pressure tight connection. A thermowell is recommended for this style and for all bulb styles.



#### Style B01, B17 & B18

The bendable extensions with union connections. B01 [12" bendable extension] is the standard Duratemp bulb style and is suitable for a variety of insertion lengths and lagging requirements. B17 is a 18" bendable extension, B18 is a 24" bendable extension. The union connection on all three styles is pressure tight and can be freely moved the entire length of the bendable portion. After installation, the bendable extension may be formed to suit the application.

Bulb Code	Bulb Size B	A	S MAX.	S MIN.
B01	3 [76]	12 [305]	15 [381]	4 [102]
B17	3 [76]	18 [457]	21 [533]	4 [102]
B18	3 [76]	24 [610]	27 [686]	4 [102]

#### Armor Style A1

AISI 302 stainless steel spring armor is supplied as standard. Originally designed for U.S. Navy Hi Shock thermometers 3 of 4

## C-600A-02 Duratemp® Thermometer

**DIMENSIONS** in [ ] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

Dial Size Inches	A	B	C	CC	E	F	K	M	LL	S	U
4½	4.75 [120.7]	2.19 [56]	6.03 [153]	10-24	5.38 [137]	1.63 [41]	1.06 [27]	4.88 [124]	0.13 0.5 [3] [13]	0.63 [16]	0.75 [16]
6	4.88 [123.7]	2.25 [57]	7.5 [190.5]	0.25 - 20	7 [178]	2.13 [54]	1.06 [27]	6.5 [165]	0.13 0.5 [3] [13]	0.63 [16]	0.75 [16]
8½	4.75 [120.7]	2.25 [57]	9.97 [352]	0.25 - 20	9.63 [244]	2.13 [54]	1.06 [27]	9 [229]	0.13 0.5 [3] [13]	0.63 [16]	0.75 [16]

