

Data Sheet

C-600A-01 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)
- 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-01
4½" dial size

SPECIFICATIONS

Accuracy:	±1% of span
Size:	4½"
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:	Surface/Lower, Flush/Rear
Bulb Size:	3" Long x ¾" 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, Externally adjustable Red set hand
Pointer:	Black, Aluminum

KEY BENEFITS

- Impact-resistant SS case
- Bayonet ring for easy glass replacement or pointer adjustment
- Extremely versatile for use on many applications
- 5 year limited warranty
- Ideal for extreme process temperature

THERMAL SYSTEM

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

NON-WETTED COMPONENTS

Window	Case	Ring
Glass, Safety glass, Acrylic	304 SS	304 SS bayonet ring

TEMPERATURE LIMITS

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

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ORDERING CODE	Example:	C-600A-01-C01	B01	A1	L01	AB	XNH
Case Style							
C-600A-01-C01	4½" Case size, SS bayonet ring, surface mount, lower connection	C-600A-01-C01					
C-600A-01-C11	4½" Case size, SS bayonet ring, flush mount, rear connection						
Bulb Style (Note 1)							
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						
Armor Style							
A1	SS spring			A1			
Line Length (Capillary length is measured from bottom of case to top of bulb extension)							
L01	5'				L01		
L03	10'						
L07	20'						
L09	30'						
L13	50'						
L19	80'						
Ranges (See table below for range codes)							
AB	-320/200°F					AB	
Options (If choosing an option(s) must include an "X")							
CS	Dual scale						X _ _
DM	Dial marking						
EO	Externally adjustable red set hand						
EP	Externally adjustable maximum pointer						
EQ	Externally adjustable minimum pointer						
NH	SS tag						NH
PD	Acrylic window						
SG	Safety glass						
SH	Stationary red set hand						

NOTES

- Minimum recommended insertion length ("u" dimension) in liquids is 4 inches and in gases is 6 inches for standard 3/8" x 3" bulb.
- 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.

RANGES			
Single Range			Dual Range
AB -320°F/200°F	AR 50°F/750°F	BS 0°C/120°C	CE 0°C/120°C and 20°F/240°F
AE -100°F/100°F	AT 400°F/1200°F	BT 10°C/150°C	CF 0°C/300°C and 50°F/550°F
AG -40°F/180°F	AY -200°C/100°C	BU 0°C/300°C	DR 10°C/150°C and 50°F/300°F
AK 20°F/240°F	BL -80°C/40°C	BW 0°C/400°C	DT -40°C/80°C and -40°F/180°F
AL 50°F/300°F	BN -40°C/80°C	BJ 200°C/650°C	
AN 50°F/550°F			

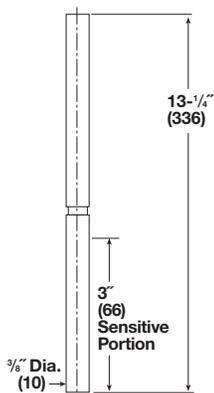
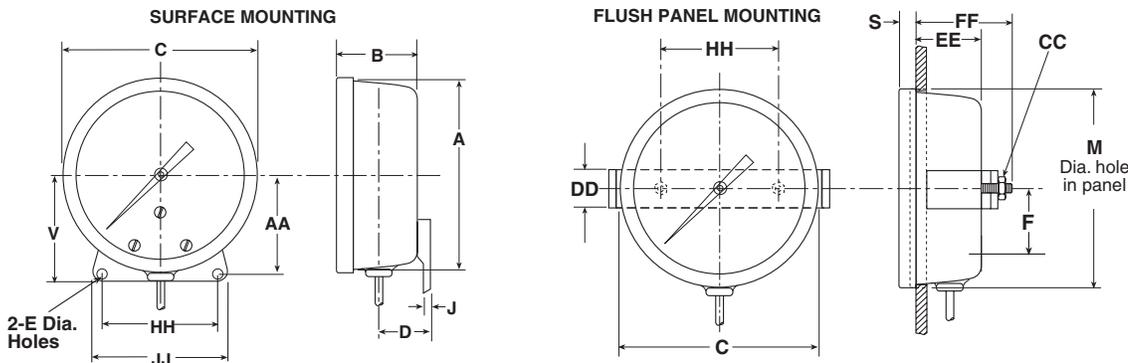
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DIMENSIONS in [] are millimeters

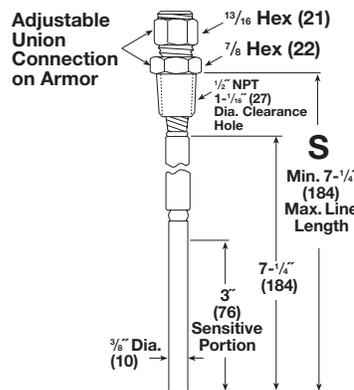
For reference only, consult Ashcroft for specific dimensional drawings

Dial Size Inches	A	AA	B	C	CC	D	DD	E	EE	F	FF	HH	J	JJ	M	S	U
4 1/2	4 ²³ / ₃₂ [120]	2 ⁵ / ₈ [67]	2 1/16 [52]	5 7/8 [130]	10-24	1 1/16 [27]	1 [25]	7/32 [6]	1 5/8 [41]	1 5/8 [141]	2 1/4 [57]	3 [76]	1/16 [2]	3 1/2 [89]	4 ²⁵ / ₃₂ [121]	7/16 [11]	1 7/16 [37]



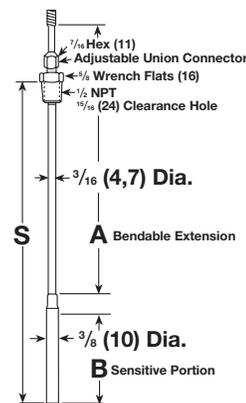
Style B03

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