

Data Sheet

C-600A-03 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
- Ideal for extreme process temperatures
- Maxivision® dial for precise readings (minimize parallax reading errors)
- Multiple case sizes 4½" & 6" with surface and lower connections
- 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-03

4½", 6" dial sizes

SPECIFICATIONS

Accuracy:	±1% of span
Sizes:	4½" or 6"
Range:	-300°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
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:	Adjustable Min./Max.
Electric Contacts:	High and low, double high, double low, off at low or high and on in-between

KEY BENEFITS

- Black coated aluminum case
- Threaded ring for easy glass replacement or pointer adjustment
- Extremely versatile for use on many applications
- 5 year limited warranty

THERMAL SYSTEM

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

NON-WETTED COMPONENTS

Window	Case	Ring
Glass (STD.), Shatterproof glass, Plastic, Non-glare glass (OPT.)	Aluminum, threaded ring	Aluminum

TEMPERATURE LIMITS

Version	Ambient
Dry	160°F (71°C)

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ORDERING CODE	Example:	C-600A-03-C02	B01	A1	L01	AB	-XNH
Case Style							
C-600A-03-C02 - 4½" Case size, aluminum threaded ring, surface mount, lower conn.		C-600A-03-C02					
C-600A-03-C15 - 6" Case size, aluminum threaded ring, surface mount, lower conn.							
Bulb Style							
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 (coding example, see range table on page 3 for all standard ranges)							
AB - -320/200°F						AB	
Options (If choosing an option(s) must include an "X")							
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							
NG - Non-glare glass							
NN - Paper tag							
NH - SS tag							NH
PD - Plastic window							
SG - Shatterproof 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 ⅜" × 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.

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SINGLE RANGES

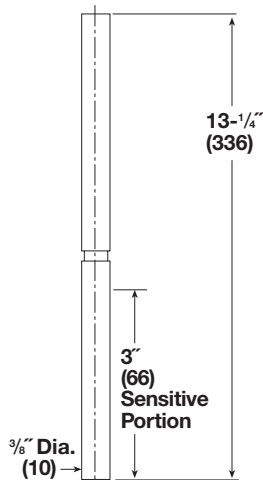
Range Code	Range Code
AB -320°F/200°F	AY -200°C/100°C
AE -100°F/100°F	BL -80°C/40°C
AG -40°F/180°F	BN -40°C/80°C
AK 20°F/240°F	BS 0°C/120°C
AL 50°F/300°F	BT 10°C/150°C
AN 50°F/550°F	BU 0°C/300°C
AR 50°F/750°F	BW 0°C/400°C
AT 400°F/1,200°F	BJ 200°C/650°C

DUAL RANGES

Range Code	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	

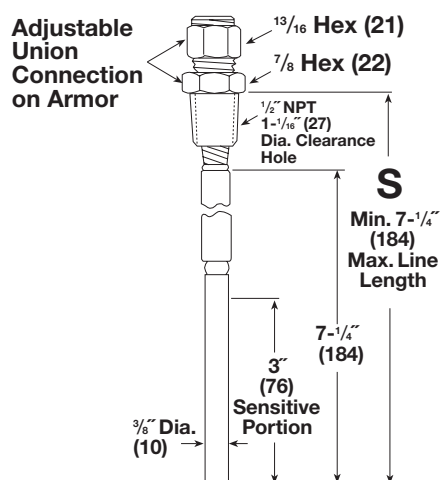
DIMENSIONS in () are millimeters

For reference only, consult Ashcroft for specific dimensional drawings



Style B03

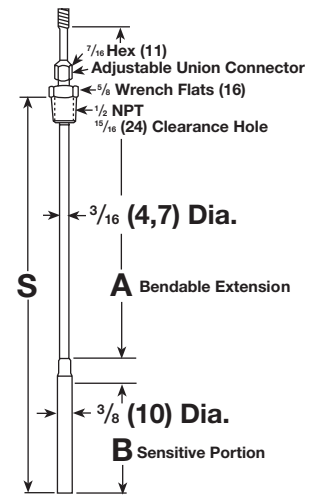
13" plain bulb for applications used in open tanks where pressures and velocities are negligible



Style B08

The compression fitting fastens anywhere along the armored line. This Bulb Style is well suited for insertion requirements in excess of 13½". The B08 style is not a pressure tight connection. A thermowell is recommended for this style and for all bulb styles.

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]



Style B01, B17 & B18

Are 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.

Armor Style A1

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

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DIMENSIONS

For reference only, consult Ashcroft for specific dimensional drawings

Dial Size Inches	Units	A	B	C	D	E	J	L	V
4½	Inches	5.79	2.08	5.03	1.33	4.66	0.3	0.22	2.38
	mm	147.1	52.8	127.8	33.8	118.3	7.6	5.6	60.5
6	Inches	7.56	3.5	6.35	1.6	6	0.6	0.28	3.19
	mm	192.0	88.9	161.3	40.6	152.4	15.2	7.1	81.0

