

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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C-600A-03 Duratemp® Thermometer

ORDERING CODE	Example:	C-600A-03-C01	B01	A1	L01	AB	XNH
Case Style							
C-600A-03-C02 - 4½" Case size, aluminum threaded ring, surface mount, lower conn.		C-600A-03-C01					
C-600A-03-C15 - 6" Case size, aluminum threaded ring, surface mount, lower conn.							
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 (Not available with A3 armor style)							
B17 - 18" Bendable extension with ½ NPT union connection							
B18 - 24" Bendable extension with ½ NPT union connection							
Armor Style							
A1 - Stainless steel spring				A1			
A2 - Stainless steel interlock							
A3 - PVC coated stainless steel interlock							
Line Length (Capillary length is measured from bottom of case to top of bulb extension)							
L01 - 5'					L01		
L03 - 10'							
L05 - 15'							
L07 - 20'							
L29 - 25'							
L09 - 30'							
L30 - 35'							
L11 - 40'							
L53 - 45'							
L13 - 50'							
L15 - 60'							
L19 - 80'							
Ranges (See table below for range codes)							
AB - -320 °F/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 - Stainless steel tag							NH
PD - Plastic window							
SG - Safety glass							
SH - Stationary red set hand							

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.

C-600A-03 Duratemp[®] Thermometer

TEMPERATURE RANGES

Single Range		Dual Range			
Range Code °F	Range Code °C	Range Code			
AA	-320 °F/300 °F	AY	-200 °C/100 °C	DP	-80 °C/40 °C and -100 °F/100 °F
AB	-320 °F/200 °F	AX	-200 °C/40 °C	DT	-40 °C/80 °C and -40 °F/180 °F
AC	-320 °F/100 °F	AZ	-200 °C/150 °C	CF	0 °C/300 °C and 50 °F/550 °F
AD	-200 °F/100 °F	BE	-120 °C/40 °C	DK	0 °C/200 °C and 50 °F/400 °F
AE	-100 °F/100 °F	BL	-80 °C/40 °C	CE	0 °C/120 °C and 20 °F/240 °F
AF	-100 °F/200 °F	BM	-80 °C/100 °C	DR	10 °C/150 °C and 50 °F/300 °F
AG	-40 °F/180 °F	DA	-40 °C/160 °C		
CN	-20 °F/300 °F	BN	-40 °C/80 °C		
AH	-20 °F/120 °F	DS	-30 °C/150 °C		
AM	50 °F/400 °F	BP	-30 °C/50 °C		
AR	50 °F/750 °F	DB	-10 °C/110 °C		
AJ	20 °F/160 °F	BR	-10 °C/70 °C		
AK	20 °F/240 °F	BW	0 °C/400 °C		
AL	50 °F/300 °F	BU	0 °C/300 °C		
AN	50 °F/550 °F	BY	0 °C/200 °C		
AT	400 °F/1200 °F	BS	0 °C/120 °C		
		BT	10 °C/150 °C		
		BJ	200 °C/650 °C		

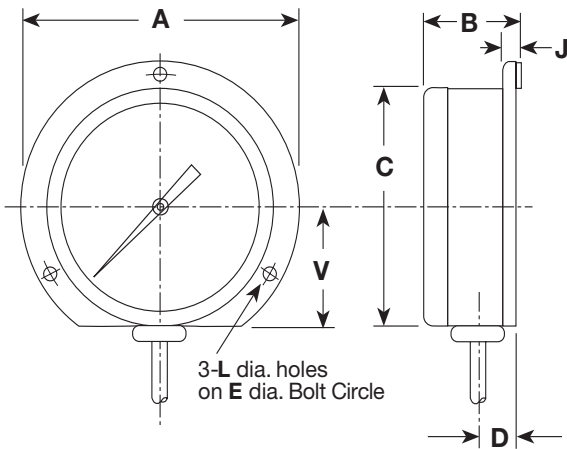
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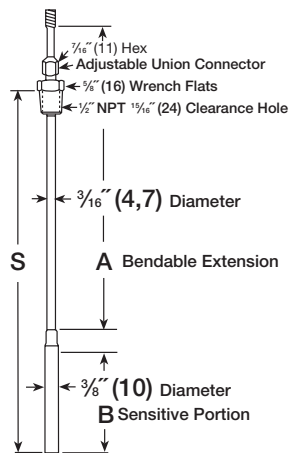
DIMENSIONS in [] are millimeters

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



Bulb 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.

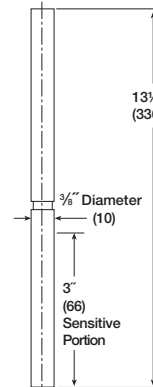
The union connection on all three styles is pressure tight and can be freely moved the entire length of the bendable portion. After installation, the bendable extension may be formed to suit the application.

Armor Style A1

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

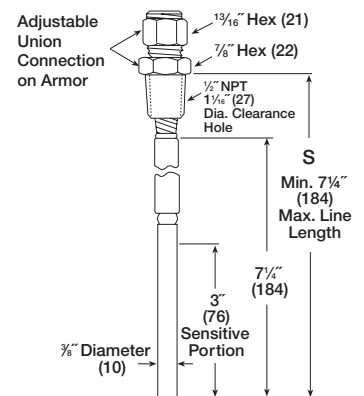
Bulb Code	Bulb Size B	A	S MAX.	S MIN.
B01	3 [76]	12 [305]	15 [381]	4 [102]
B17	3 [76]	18 [457]	21 [533]	4 [102]
B18	3 [76]	24 [610]	27 [686]	4 [102]

Bulb Style B03



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

Bulb 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.