ASHCROFT®
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C-600A-04 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 styles with lower and back connections, surface, or flush mounted
■ 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-04
4½″ & 6″ dial size

SPECIFICATIONS

Accuracy:	±1% of span
Size:	4½″ or 6″
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:	Lower, Rear, Surface or Flush
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

• **Phenolic case**
• **Snap 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
Safety Glass, Acrylic	Phenolic	300 SS snap ring

TEMPERATURE LIMITS

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

C-600A-04 Duratemp® Thermometer

ORDERING CODE Example:	C-600A-04-C03	B01	A1	L01	AB	XNH
Case Style						
C-600A-04-C03 - 4½ Case size, 300 SS snap ring, surface mount, lower conn.	C-600A-04-C03					
C-600A-04-C08 - 4½˝ Case size, 300 SS snap ring, surface mount, rear conn.						
C-600A-04-C38 - 4½˝ Case size, 300 SS snap ring, flush mount, rear conn.						
C-600A-04-C16 - 6˝ Case size, 300 SS snap ring, surface mount, lower conn.						
C-600A-04-C42 - 6˝ Case size, 300 SS snap ring, flush mount, rear 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")						X _ _
CS - Dual scale						
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						NH
EO - Externally adjustable red set hand						
EP - Externally adjustable maximum pointer						
EQ - Externally adjustable minimum pointer						
NH - Stanless steel tag						
PD - Acrylic window						
SG - Safety glass						
SH - Stationary red set hand						
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.

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TEMPERATURE RANGES

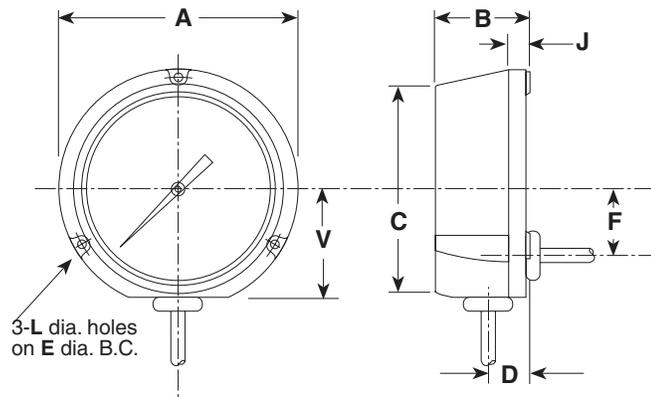| Single Range				Dual Range	
Range Code °F		Range Code °C		Range Code	
AA	-320 °F/300 °F	AY	-200 °C/100 °C	DP	-80 °C/40 °C and -100 °F/100 °F
AB	-320 °F/200 °F	AX	-200 °C/40 °C	DT	-40 °C/80 °C and -40 °F/180 °F
AC	-320 °F/100 °F	AZ	-200 °C/150 °C	CF	0 °C/300 °C and 50 °F/550 °F
AD	-200 °F/100 °F	BE	-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	A	AA	B	C	CC	D	E	F	J	L	LL	M	S	V
4½	5.81 [148]	6 [154]	2.31 [59]	5.06 [129]	#10-32	1.06 [25]	5.38 [137]	1.63 [41]	0.56 [14]	0.28 [5.5]	0.06-0.25 [2]-[13]	5.44 [148]	1.44 [37]	2.63 [67]
6	7.63 [194]	7.75 [197]	2.38 [60]	6.63 [129]	#10-32	1.06 [27]	7 [178]	2.13 [54]	0.63 [16]	0.28 [7]	0.06-0.25 [2]-[3]	7.27 [5]	0.19 [5]	3.5 [89]

SURFACE MOUNTING

FLUSH MOUNTING

3-**L** dia. holes on **E** dia. B.C.

Mounting hardware supplied by Ashcroft

M Hole in panel

Bulb Style B01, B17 & B18

⁷⁄₁₆″ (11) Hex
Adjustable Union Connector
⅝″ (16) Wrench Flats
½″ NPT ¹⁵⁄₁₆″ (24) Clearance Hole

³⁄₁₆″ (4,7) Diameter

S   **A** Bendable Extension

⅜″ (10) Diameter
B Sensitive Portion

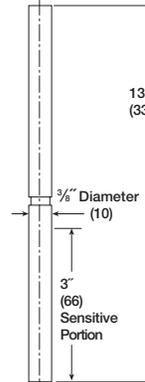| Bulb Code	Bulb Size B	A	S MAX.	S MIN.
B01	3 [76]	12 [305]	15 [381]	4 [102]
B17	3 [76]	18 [457]	21 [533]	4 [102]
B18	3 [76]	24 [610]	27 [686]	4 [102]
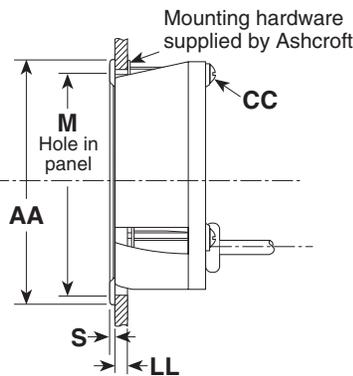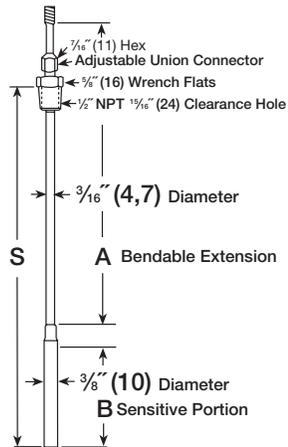
The bendable extensions with union connections. B01 [12″ bendable extension] is the standard Duratemp bulb style and is suitable for a variety of insertion lengths and lagging requirements. B17 is a 18″ bendable extension, B18 is a 24″ bendable extension.

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.
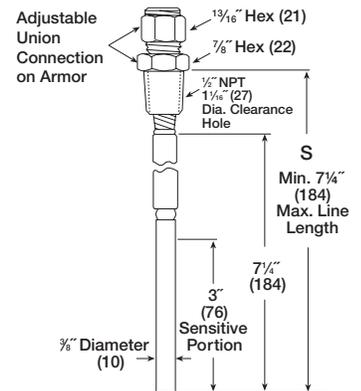
Armor Style A1

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

Bulb Style B03

13¼″ (336)

⅜″ Diameter (10)

3″ (66) Sensitive Portion

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

Bulb Style B08

Adjustable Union Connection on Armor

¹³⁄₁₆″ Hex (21)
⅞″ Hex (22)
½″ NPT 1¹⁄₁₆″ (27) Dia. Clearance Hole

S Min. 7¼″ (184) Max. Line Length

7¼″ (184)

3″ (76) Sensitive Portion

⅜″ Diameter (10)

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.

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