

Data Sheet

C-600H-45 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)
- Hermetically sealed
- 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-600H-45
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
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
Pointer:	Black, aluminum

KEY BENEFITS

- Phenolic case
- Threaded ring for easy glass replacement or pointer adjustment
- Extremely versatile for use on many applications where dust or moisture is present
- 5-year limited warranty

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	Back Cover
Glass, Safety glass, Acrylic	Phenolic	Polycarbonate threaded ring	Polycarbonate

TEMPERATURE LIMITS

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

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ORDERING CODE	Example:	C-600H-45-C60	B01	A1	L01	AB	XNH
Case Style							
C-600H-45-C60 - 4½" case size, phenolic hermetically sealed, surface mount, lower connection		C-600H-45-C60					
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							
NH - Stainless steel 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 ¾" 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.

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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		

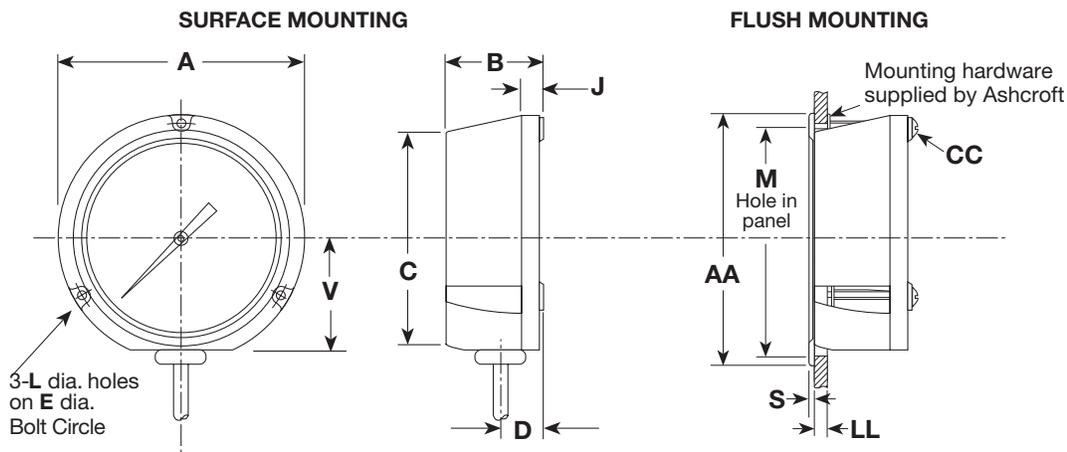
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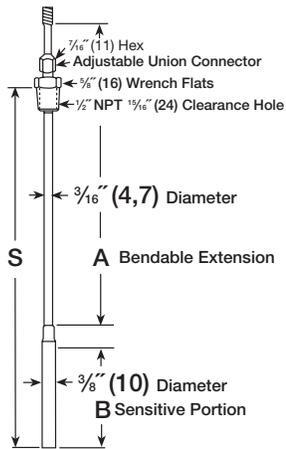
DIMENSIONS in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

Dial Size Inches	A	AA	B	C	CC	D	E	J	L	LL	M	S	V
4 1/2	5.81 [148]	6 [154]	2.31 [59]	5.06 [129]	#10-32	1.06 [25]	5.38 [137]	0.56 [14]	0.28 [5.5]	0.06-0.25 [2]-[13]	5.44 [148]	1.44 [37]	2.63 [67]



Bulb Style B01, B17 & B18



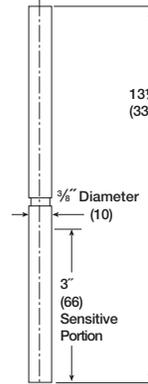
The bendable extensions with union connections. B01 [12" bendable extension] is the standard Duratemp bulb style and is suitable for a variety of insertion lengths and lagging requirements. B17 is a 18" bendable extension, B18 is a 24" bendable extension.

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

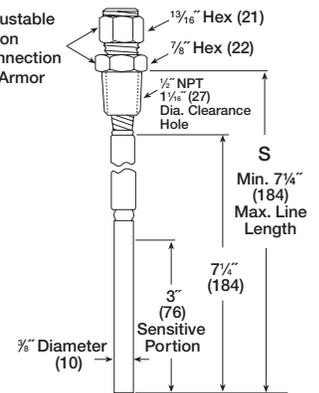
AISI 302 stainless steel spring armor is supplied as standard. Originally designed for U.S. Navy Hi Shock thermometers

Bulb 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 13 1/2". 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]