

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				B01	A1	L01	AB	-XNH
C-600H-45-C60 - 4½" case size, phenolic hermetically sealed, surface mount, lower connection								
C-600H-45-C60								
Bulb Style (See Note 1 below)								
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")								-X _ _
CS - Dual scale								
DM - Dial marking								
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 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

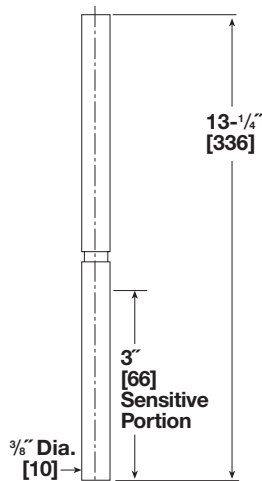
Range Code		Range Code	
AB	-320°F/200°F	AY	-200°C/100°C
AE	-100°F/100°F	BL	-80°C/40°C
AG	-40°F/180°F	BN	-40°C/80°C
AK	20°F/240°F	BS	0°C/120°C
AL	50°F/300°F	BT	10°C/150°C
AN	50°F/550°F	BU	0°C/300°C
AR	50°F/750°F	BW	0°C/400°C
AT	400°F/1,200°F	BJ	200°C/650°C

DUAL RANGES

Range Code	
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

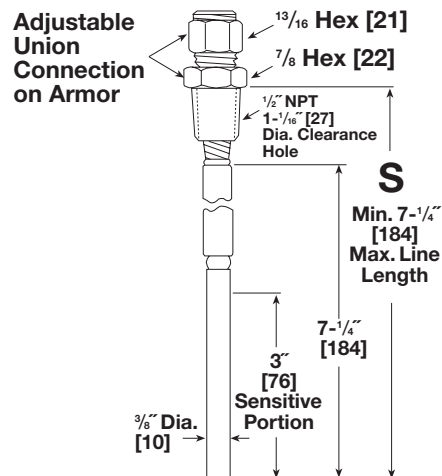
DIMENSIONS in [] are mm

For reference only, consult Ashcroft for specific dimensional drawings



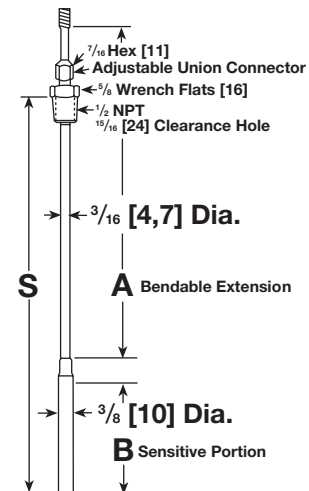
Style B03

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 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.

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]

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DIMENSIONS

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
4½	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]

