

#### **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

**Specifications** 



C-600A-03

41/2", 6" dial sizes

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 3%" 0.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

red set hand

Adjustable Min./Max.

or high and on in-between

Stationary red hand set, Externally adjustable

High and low, double high, double low, off at low

### **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 Mater	ial	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.)		Alumin	um, threaded ring		Aluminum			
Temperature Limits								
<b>V</b> ersi		Ambient						
Dry			160 °F (71 °C)					

**Electric Contacts:** 

Head/Elevation Error:

Hand Set:

Pointer:



C-600A-03-C02 - 4½ Case size, aluminum threaded ring, surface mount, lower conn.   C-600A-03-C01	Ordering Code	Example:	C-600A-03-C01	B01	A1	L01	AB	XNH
C-600A-03-C15 - 6' Case size, aluminum threaded ring, surface mount, lower conn.   Bulb Style (Note 1)   B01   2' Bendable extension with ½' NPT union connection   B01   B03 - Plain bulb with rigid extension, in ourion   B08 - Plain bulb with rigid extension, in ourion   B08 - Plain bulb with rigid extension with ½' NPT union connection   B18 - 24' Bendable extension with ½' NPT union connection with ½' NPT union connection with ½' NPT union connection with ½' NPT union connectio	Case Style		_					
Bulb Style (Note 1)	C-600A-03-C02 - 41/2" Case size, aluminum thread	ed ring, surface mount, lower conn.	C-600A-03-C01	-				
Bulb Style (Note 1)	C-600A-03-C15 - 6" Case size, aluminum threade	ed ring, surface mount, lower conn.						
B01 - 12" Bendable extension with 1s NPT union connection				_				
B03 - Plain bulb with rigid extension, in ounion   B08 - Plain bulb with rigid extension, in V hPT 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		connection		B01				
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   Armor Style								
B17 - 18" Bendable extension with ½ NPT union connection   B18 - 24" Bendable extension with ½ NPT union connection   A1	-	n on armor (Not available with A3 armo	or style)					
A1 - Stainless steel spring A1 A2 - Stainless steel interlock A3 - PVC coated interlock Line Length (Capillary length is measured from bottom of case to top of bulb extension) L01 - 5' L01 L03 - 10' L03 - 10' L05 - 15' L07 - 20' L29 - 25' L09 - 30' L30 - 35' L11 - 40' L13 - 50' L15 - 60' L15 - 60' L15 - 60' L15 - 80' L15 - 80' AB - 320 "F/200 "F AB  DPIONS (Rhoosing an option(s) must include an "X")  DPION Betric contacts EE - Double low electric contacts EE - Double low electric contacts EE - Double low electric contacts EE - Esternally adjustable reads and non-between EO - Externally adjustable maximum pointer RNG - Non-giare glass NN - Pager tag NN - Pager tag NN - Pager tag NN - Pager tag	-	·						
A1 - Stainless steel spring A1 A2 - Stainless steel interlock A3 - PVC coated interlock Line Length (Capillary length is measured from bottom of case to top of bulb extension) L01 - 5' L01 L03 - 10' L03 - 10' L05 - 15' L07 - 20' L29 - 25' L09 - 30' L30 - 35' L11 - 40' L13 - 50' L15 - 60' L15 - 60' L15 - 60' L15 - 80' L15 - 80' AB - 320 "F/200 "F AB  DPIONS (Rhoosing an option(s) must include an "X")  DPION Betric contacts EE - Double low electric contacts EE - Double low electric contacts EE - Double low electric contacts EE - Esternally adjustable reads and non-between EO - Externally adjustable maximum pointer RNG - Non-giare glass NN - Pager tag NN - Pager tag NN - Pager tag NN - Pager tag	B18 - 24" Bendable extension with ½ NPT union of	connection						
A1 - Stainless steel spring					-			
A2 - Stainless steel interlock					A1	-		
Line Length (Capillary length is measured from bottom of case to top of bulb extension)   Line Lof 5'						-		
L01 - 5'	A3 - PVC coated interlock					-		
L01 - 5'	Line Length (Capillary length is measured from b	ottom of case to top of bulb extension	n)			_		
L05 - 15'			•			L01		
L07 - 20'     L29 - 25'     L09 - 30'     L30 - 35'     L11 - 40'     L33 - 45'     L13 - 50'     L15 - 60'     L19 - 80'     Ranges (See table below for range codes)     AB320 "F/200 °F   AB     Options (If choosing an option(s) must include an "X")     X DM - Dial marking     ED - High and low electric contacts     EF - Double high electric contacts     EF - Double low electric contacts     EG - Electric contacts off at low or high and on in-between     EO - Externally adjustable maximum pointer     EQ - Externally adjustable	L03 - 10′							
L29 - 25'	L05 - 15′							
1.09 - 30°     1.30 - 35°     1.11 - 40°     1.53 - 45°     1.13 - 50°     1.15 - 60°     1.19 - 80°     Ranges (See table below for range codes)     AB - 320° F/200° F	L07 - 20′							
L30 - 35'	L29 - 25′							
L30 - 35'	L09 - 30′							
L13 - 50'   L15 - 60'   L19 - 80'   AB   AB   AB   AB   AB   AB   AB   A								
L13 - 50′ L15 - 60′ L19 - 80′ Ranges (See table below for range codes)  AB320 °F/200 °F AB Options (If choosing an option(s) must include an "X")  M - Dial marking ED - High and low electric contacts EE - Double high electric contacts EF - Double low 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	L11 - 40′							
L15 - 60' L19 - 80' Ranges (See table below for range codes) AB320 °F/200 °F AB Options (If choosing an option(s) must include an "X")  M - Dial marking ED - High and low electric contacts EE - Double high electric contacts EE - Double low 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	L53 - 45′							
Ranges (See table below for range codes)  AB320 °F/200 °F  AB  Options (If choosing an option(s) must include an "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	L13 - 50′							
Ranges (See table below for range codes)  AB - 320 °F/200 °F  AB  Options (If choosing an option(s) must include an "X")  The DM - Dial marking  ED - High and low electric contacts  EE - Double high electric contacts  EF - Double low 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	L15 - 60′							
AB - 320 °F/200 °F  Options (If choosing an option(s) must include an "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	L19 - 80′							
Options (If choosing an option(s) must include an "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	Ranges (See table below for range codes)							
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  EQ - Externally adjustable minimum pointer  NG - Non-glare glass  NN - Paper tag  NH - Stainless steel tag	AB320 °F/200 °F						AB	
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	Options (If choosing an option(s) must include ar	ı "X")						X
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	DM - Dial marking							
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	ED - High and 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	EE - Double high electric contacts							
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	EF - Double low electric contacts							
EP - Externally adjustable maximum pointer  EQ - Externally adjustable minimum pointer  NG - Non-glare glass  NN - Paper tag  NH - Stainless steel tag  NH	EG - Electric contacts off at low or high and on in	-between						
EQ - Externally adjustable minimum pointer  NG - Non-glare glass  NN - Paper tag  NH - Stainless steel tag  NH	EO - Externally adjustable red set hand							
NG - Non-glare glass NN - Paper tag NH - Stainless steel tag NH	EP - Externally adjustable maximum pointer							
NN - Paper tag NH - Stainless steel tag NH	EQ - Externally adjustable minimum pointer							
NH - Stainless steel tag NH	NG - Non-glare glass							
NH - Stainless steel tag NH	NN - Paper tag							
PD - Plactic window								NH
T D - Flastic William	PD - Plastic window							
SG - Safety glass	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 ¾" × 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.



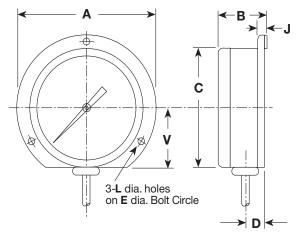
Temperature Ranges								
	Single	Single Range Dual Range						
Ra	ange Code °F Ra		Range Code °C		Range Code			
AA	-320 °F/300 °F	AY	-200 °C/100 °C	DP	-80 °C/40 °C and -100 °F/100 °F			
AB	-320 °F/200 °F	AX	-200 °C/40 °C	DT	-40 °C/80 °C and -40 °F/180 °F			
AC	-320 °F/100 °F	AZ	-200 °C/150 °C	CF	0 °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					



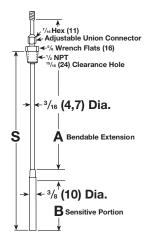
### **Dimensions** in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

Dial Size Inches	Units	Α	В	С	D	Е	J	L	v
<b>4</b> ½	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.

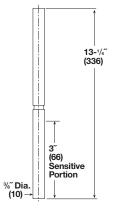
The union connection on all three styles is pressure tight and can be freely moved the entire length of the bendable portion. After installation, the bendable extension may be formed to suit the application.

#### Armor Style A1

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

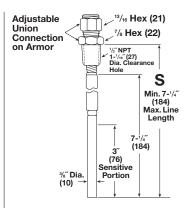
Bulb Code	Bulb Size B	Α	S Max.	S Min.
B01	3	12	15	4
	[76]	[305]	[381]	[102]
B17	3	18	21	4
	[76]	[457]	[533]	[102]
B18	3	24	27	4
	[76]	[610]	[686]	[102]

### **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.