

EI Bimetal Thermometer

FEATURES

- Hermetically sealed case to prevent entry of moisture, interior corrosion and coil freeze up
- Maxivision® dial for precise readings (minimize parallax reading errors)
- Silicone dampened coil for reduction of pointer flutter on high vibration application and provides improved response times
- External adjustment
- Customized dial printing
- Everyangle™ connection dial can be rotated 360°

TYPICAL USES

- Offshore Oil Rigs
- Chemical and Petrochemical Plants
- Water and Wastewater Pressure Control
- Pulp and Paper
- Refineries
- Power
- General Industrial
- HVAC
- Equipment Skids
- Pharmaceutical / Biotech
- Food and Beverages



EI Bimetal
2", 3", 5" dial sizes



SPECIFICATIONS

Accuracy:	±1% of span ASME B40.200 (B40.3 Grade A)	
Stem Length:	2½" to 60"	
Dial Sizes:	2", 3", 5"	
Dial Style:	Maxivision®, black figures on white background	
Overtemperature Limits:	Top of Range °F	Max. Over Temperature
	up to 250	100% of span
	251-550	50% of span
	551-1,000	800°F
	Satisfactory for continuous service up to 800°F (425°C). Can be used for intermittent service from 800 to 1,000°F (425 to 500°C). Use Ashcroft Duratemp® thermometers for ranges above and below those listed above.	
Process Connection:	Plain, Pointed Stem, ½ NPT, ½ NPT Union and ½ NPT Adjustable Union	
Stem diameter:	0.250", 0.375"	
Case & Stem:	304 SS, 316 SS Hermetically sealed	
Process Connection Location:	2": Rear 3", 5": Everyangle™, Lower, Rear	
Pointer:	Black	
Window:	Glass, Acrylic, Safety Glass	
Approvals:	RoHS	

KEY BENEFITS

- NEMA 4X/IP66 protection
- Able to perform quick and limited span adjustments
- All Welded stainless steel construction
- 5-year limited warranty

MIN/MAX TEMPERATURE LIMITS

Ambient

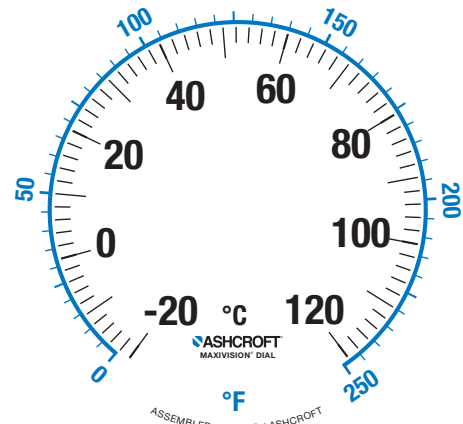
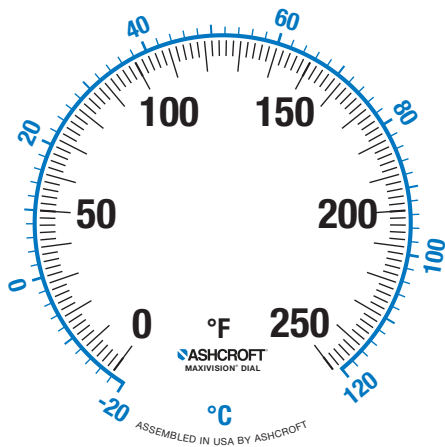
-40°F to 200°F (-40°C to 93°C)

Data Sheet

EI Bimetal Thermometer

ORDERING CODE	Example:	30EI	60	R	060	XSG	0/200°F
Dial Size and Model							
20EI - 2" External adjust bimetal (rear connection only)							
30EI - 3" External adjust bimetal		30EI					
50EI - 5" External adjust bimetal							
Stem and Connection							
40 - Plain - no connection							
42 - ½ NPT Union (Everyangle™ only) (Allows thermometer to be rotated to desired orientation)							
50 - Pointed stem - no connection (2" case only)							
60 - ½ Fixed NPT for 3" & 5" but ¼ fixed NPT for 2"			60				
70 - ½ NPT Adjustable Union (5" Everyangle™ only) (Allows thermometer to be rotated & adjust process insertion length desired)							
Connection Location							
R - Rear connection				R			
L - Lower connection							
E - Everyangle™ connection							
Stem Length (Consult factory for custom or longer stem length)							
025 - 2½"							
040 - 4"							
060 - 6"					060		
090 - 9"							
120 - 12"							
150 - 15"							
180 - 18"							
240 - 24"							
Options - (if choosing an option(s) must include an "X")							
CS - Dual scale						X_	
DM - Dial marking							
NH - SS tag							
PD - Acrylic window							
SG - Safety glass						SG	
YW - 316 SS construction (5" Everyangle™ connection)							
C4 - Individual calibration certification							
S1 - Silicone free							
3B - ⅜" stem diameter							
02 - ¼ NPT (only available on rear connection)							
Temperature Ranges (see tables on pages 3 and 4 for more ranges)							
0/200°F							0/200°F

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Fahrenheit Inner Range				
Inner °F	Outer °C	Restrictions		
-100/100	-70/40			
-80/120	-60/50			
-50/200	-40/93			
-50/250	-40/120			
Can be liquid filled	-40/120	-40/50	4" Min for Everyangle™ and Lowers only	
	-40/160	-40/70		
	-20/120	-30/50		
	0/100	-20/40		
	0/150	-20/65		
	0/200	-20/93		
	0/250	-20/120		
	0/300	-20/150		
	0/350	-20/170		
	0/500	-20/260		
	20/120	-5/50		4" Min for Everyangle™ and Lowers only
	30/130	0/55		4" Min for Everyangle™ and Lowers only
	30/240	0/115		
	50/300	10/150		
	50/400	10/200		
	50/550	10/290		
0/700	-20/370	4" minimum		
100/800	50/430	4" minimum		
150/750	65/395	4" minimum		
200/700	100/370	4" minimum		
200/1000	100/550	4" minimum Satisfactory continuous service from 800°F or 426°C. Intermittent service from 800° to 1,000°F or 425°C to 500°C		

Celsius Inner Range			
Inner °C	Outer °F	Restrictions	
-50/50	-50/120		
-50/180	-50/350		
Can be Liquid filled	-40/100	-40/210	4" Min for Everyangle™ and Lowers only
	-40/160	-40/320	
	-30/70	-20/160	
	-20/180	0/350	
	-20/120	0/250	
	-10/50	20/120	
	-10/110	20/230	
	0/60	30/140	
	0/100	30/210	
	0/120	30/250	
	0/150	30/300	
	0/200	30/400	
	0/250	30/480	
	0/300	30/570	
	10/150	50/300	
	0/400	30/750	
0/500	30/390	4" minimum	
50/450	120/840	4" minimum Satisfactory continuous service from 800°F or 426°C. Intermittent service from 800° to 1,000°F or 425°C to 500°C	
100/500	220/930	4" minimum Satisfactory continuous service from 800°F or 426°C. Intermittent service from 800° to 1,000°F or 425°C to 500°C	

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Single Scale Ranges					
Restrictions		°F	°C	Restrictions	
		-100/100			
		-80/120			
		-50/200	-50/50		
		-50/250	-50/180		
Can be Liquid filled	4" Min for Everyangle™ and Lowers only	-40/120	-40/100		
		-40/160	-40/160		
		-20/120	-30/70		
		0/100	-20/180		
		0/150	-10/50		
		0/200	-10/110		
		0/250	0/50	4" Min for Everyangle™ and Lowers only	
		0/300	0/60	4" Min for Everyangle™ and Lowers only	
		0/500	0/100		
		4" Min for Everyangle™ and Lowers only	20/120	0/120	
		4" Min for Everyangle™ and Lowers only	30/130	0/150	
			30/240	0/200	
			50/300	0/250	
			50/400	0/300	
			50/550	10/150	
	4" minimum	0/700	0/400	4" minimum	
	4" minimum	100/800	0/500	4" minimum	
	4" minimum	150/750	50/450	4" minimum Satisfactory continuous service from 800°F or 426°C. Intermittent service from 800° to 1,000°F or 425°C to 500°C	
	4" minimum	200/700	100/500	4" minimum Satisfactory continuous service from 800°F or 426°C. Intermittent service from 800° to 1,000°F or 425°C to 500°C	
	4" minimum Satisfactory continuous service from 800°F or 426° C. Intermittent service from 800° to 1,000°F or 425°C to 500°C	200/1000			

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DIMENSIONS in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

Dial Size (Inches)	Process Connection Locations	A	B	C	D	G	H	S	NPT	Hex.	Weight (oz) ⁽¹⁾ S - 2 1/2"
2	Rear (Plain)	2 3/32 [53]	3/8 [10]	3/8 [10]				(2)		1 1/16	4 1/2
2	Rear (Plain, pointed stem)	2 3/32 [53]	3/8 [10]	3/8 [10]				(2)		1 1/16	4 1/2
2	Rear (Threaded)	2 3/32 [53]	3/8 [10]	3/8 [10]				(2)	1/4	1 1/16	4 1/2
3	Rear	3 5/32 [80]	1/2	3/8 [10]				(2)	1/2	7/8	7
3	Lower	3 5/32 [80]	1 1/2		2 5/8 [67]			(2)	1/2	7/8	11
3	Everyangle™	3 5/32 [80]	1/2			1 21/32 [42]	3 3/8	(2)	1/2	7/8	10
5	Rear	5 1/32 [128]	19/32	3/8 [10]				(2)	1/2	7/8	16
5	Lower	5 1/32 [128]	1 15/16 [49]		3 5/8 [92]			(2)	1/2	7/8	26
5	Everyangle™	5 1/32 [128]	19/32			1 3/4	3 21/32 [93]	(2)	1/2	7/8	25

NOTES:

1. Add 1 oz. for every 2" inches of stem length
2. "S" dimensions are 2 1/2, 4, 6, 9, 12, 15, 18 and 24" (STD.). Stem diameter is 1/4" (STD.)

