ASHCROFT®
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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

RoHS COMPLIANT

GOLD Service

SPECIFICATIONS

Accuracy:	±1% of span ASME B40.200 (B40.3 Grade A)
Stem Length:	2½″ to 60″
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 °F to 1,000 °F (425 °C 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

CAUTION

Thermowells should be used on all pressurized applications over 15 psi, to protect the thermometer from corrosion or physical damage, and to facilitate removal of the thermometer without disturbing the process.

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)

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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 (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”)					X_ _	
CS - Dual scale						
DM - Dial marking						
NH - Stainless steel tag						
PD - Acrylic window						
SG - Safety glass					SG	
YW - 316 Stainless steel construction (5″ Everyangle™ connection)						
C4 - Traceable calibration certificate						
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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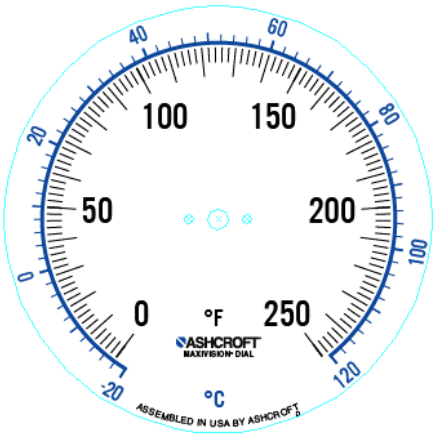

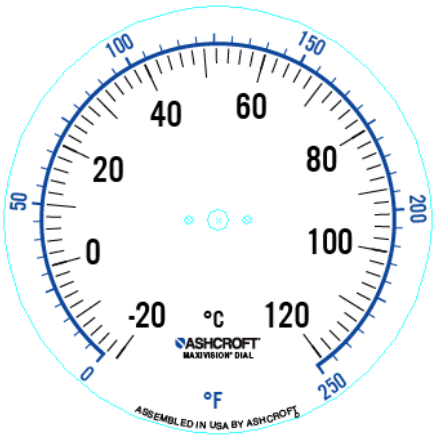

Fahrenheit Inner Range

	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	
	-40/160	-40/70	
	-20/120	-30/50	
	0/100	-20/40	4″ min. for Everyangle™ and lowers only
	0/150	-20/65	4″ min. for Everyangle™ and lowers only
	0/160	-20/70	4″ min. for Everyangle™ and lowers only
	0/200	-20/93	
	0/250	-20/120	
	0/300	-20/150	
	0/350	-20/170	
	0/400	-20/200	
	0/500	-20/260	
	20/120	-5/50	
	30/130	0/55	
	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 °F 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	
	-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	4″ minimum
	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	4″ minimum
	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		-40/120	-40/100	
		-40/160	-40/160	
		-20/120	-30/70	
	4″ min. for Everyangle™ and lowers only	0/100	-20/180	
	4″ min. for Everyangle™ and lowers only	0/150	-10/50	
	4″ min. for Everyangle™ and lowers only	0/160	—	
		0/200	-10/110	
		0/250	0/50	4″ minimum
		0/300	0/60	4″ minimum
		0/400	—	
		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 °F 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 °F 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 °F 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 - 2½″
2	Rear (Plain)	2 3/32 [53]	3/8 [10]	3/8 [10]				(2)		11/16	4½
2	Rear (Plain, pointed stem)	2 3/32 [53]	3/8 [10]	3/8 [10]				(2)		11/16	4½
2	Rear (Threaded)	2 3/32 [53]	3/8 [10]	3/8 [10]				(2)	¼	11/16	4½
3	Rear	3 5/32 [80]	½	3/8 [10]				(2)	½	⅞	7
3	Lower	3 5/32 [80]	1 ½		2 5/8 [67]			(2)	½	⅞	11
3	Everyangle™	3 5/32 [80]	½			1 21/32 [42]	3 3/8	(2)	½	⅞	10
5	Rear	5 1/32 [128]	19/32	3/8 [10]				(2)	½	⅞	16
5	Lower	5 1/32 [128]	1 15/16 [49]		3 5/8 [92]			(2)	½	⅞	26
5	Everyangle™	5 1/32 [128]	19/32			1 3/4	3 21/32 [93]	(2)	½	⅞	25

NOTES:
1. Add 1 oz. for every 2″ inches of stem length
2. "S" dimensions are 2½, 4, 6, 9, 12, 15, 18 and 24″ (STD.). Stem diameter is ¼″ (STD.)
3. Stem tolerance is ± 0.250″