ASHCROFT® Trust the shield.*

El 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

100 150 200 450 100 150 100 500 100 150 200 450 100 150 200 450 100 150 200 450 200

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





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:	be used for intermittent	Max. Over Temperature 100% of span 50% of span 800 °F ous service up to 800 °F (425 °C). Can a service from 800 °F to 1,000 °F (425 °C) ft Duratemp® thermometers for ranges 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				

Approvals: CAUTION

Pointer:

Window:

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.

Glass, Acrylic, Safety Glass

Black

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)



El Bimetal Thermometer

Dial Size and Model	ORDERING CODE	Example:	30EI	60	R	060	XSG	0/200°F
30E - 3" External adjust bimetal 30E 50E - 5" External adjust bimetal 50E - 5" External Ex	Dial Size and Model							
Signa and Connection Not available on lower connection Not a	20EI - 2" External adjust bimetal (rear connection only)							
Stem and Connection 40 - Plain - no connection Not available on lower connection 42 - ½ MPT 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 ½ fixed NPT for 2° 60 70 - ½ NPT Adjustable Union (Everyangle" only) (Allows thermometer to be rotated & adjust process insertion length desired) Connection R Rac connection R R R R R R R R R	30EI - 3" External adjust bimetal		30EI					
40 - Plain - no connection (Not available on lower 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 & 6° 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 E - Everyangle" connection Stem Length (Consult factory for custom or longer stem length) 025 - 2½ 400 - 4* 400 - 16* 1	50EI - 5" External adjust bimetal							
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 & 6 to 1½ fixed NPT for 2° & 60 70 - ½ NPT Adjustable Union (Everyangle" only) (Allows thermometer to be rotated & adjust process insertion length desired) Connection R - Rear connection R - Rear connection E - Everyangle™ connection Stem Length (Consult factory for custom or longer stem length) 50 - 2 ½ fixed NPT (- 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1	Stem and Connection							
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 R. Rear connection E - Everyangle™ connection E- Everyangle™ connection Stem_ength (Consult factory for custom or longer stem length) 225 - 2½ 1 200 - 6° 060 200 - 9° 060 201 - 12° 060 300 - 9° 060 201 - 12° 060 301 - 13° 060 302 - 24° Coptions - (if choosing an option(s) must include an "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 1 - 31 - 31 licone free 38 - ¾ * stem diameter 20 - ½ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	40 - Plain - no connection (Not available on lower connection	ction)						
60 - % Fixed NPT for 3 & 5" but 1/x fixed NPT for 2" 60 70 - 1/x NPT Adjustable Union (Everyangle" only) (Allows thermometer to be rotated & adjust process insertion length desired) R - Rear connection R L - Lower connection R E - Everyangle™ connection Stem Length (Consult factory for custom or longer stem length) 025 - 21/x	42 - ½ NPT Union (Everyangle [™] only) (Allows thermometer	r to be rotated to desired orientation)						
No	50 - Pointed stem - no connection (2" case only)							
Connection Location R R - Rear connection R L - Lower connection E - Everyangle™ connection Stem Length (Consult factory for custom or longer stem length) ————————————————————————————————————	60 - ½ Fixed NPT for 3 & 5" but ¼ fixed NPT for 2"			60				
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 - 99* 120 - 12* 150 - 15* 180 - 18* 240 - 24* Options - (if choosing an option(s) must include an "X") CS - Dual scale DM - Dial marking NH - Stainless steel tag PD - Acrylic window SG - Safety glass SG - Safety glass SG - Safety glass SG - Safety glass SI - Silicone free S1 - Silicone free 38 - ¾* stem diameter 02 - ½ % NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	70 - ½ NPT Adjustable Union (Everyangle™ only) (Allows ther	mometer to be rotated & adjust process i	nsertion length	desired)				
L - Lower connection E - Everyangle™ connection Stem Length (Consult factory for custom or longer stem length) 025 - 2½* 040 - 4* 060 - 6* 080 - 9* 120 - 12* 150 - 15* 180 - 18* 240 - 24* Options - (if choosing an option(s) must include an "X") CS - Dual scale DM - Dial marking NH - Stainless steel tag PD - Acrylic window SG - Safety glass GG - Safety glass SG YW - 316 Stainless steel construction (5* Everyangle™ connection) C4 - Traceable calibration certificate S1 - Silicone free 38 - ¾* stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	Connection Location							
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 Options - (if choosing an option(s) must include an "X") M - Dial marking NH - Stainless steel tag PD - Acrylic window SG - Safety glass SG - Safety glass SG - Safety glass SG - YW - 316 Stainless steel construction (5* Everyangle® connection) C4 - Traceable calibration certificate S1 - Silicone free 38 - ¾* stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	R - Rear connection				R			
Stem Length (Consult factory for custom or longer stem length) A	L - Lower connection							
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 - ¾'' stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	E - Everyangle™ connection							
040 - 4" 060 060 090 - 9" 120 - 12" 150 - 15" 180 - 18" 240 - 24" 240 - 24" X X CS - Dual scale X CS - Dual scale THE - Stainless steel tag THE - Stainless steel tag THE - Stainless steel tag THE - Stainless steel construction (5" Everyangle" connection) SG YW - 316 Stainless steel construction (5" Everyangle" connection) SG 3B - %" stem diameter 3B - %" stem diameter 3B - %" stem diameter Temperature Ranges (see tables on pages 3 and 4 for more ranges) Temperature Ranges (see tables on pages 3 and 4 for more ranges) The page of the page 2 and 4 for more ranges The page 2 and 4 for	Stem Length (Consult factory for custom or longer ste	em length)						
060 - 6" 060 090 - 9" 50 120 - 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 - %" stem diameter Q2 - ½ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	025 - 21/2"						-	
090 - 9° 120 - 12° 150 - 15° 180 - 18° 240 - 24° Options - (if choosing an option(s) must include an "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 - 3" stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	040 - 4"						_	
120 - 12" 150 - 15" 180 - 18" 240 - 24" Options - (if choosing an option(s) must include an "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\times connection) C4 - Traceable calibration certificate S1 - Silicone free 38 - %" stem diameter 02 - ½ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	060 - 6"					060	-	
150 - 15" 180 - 18" 240 - 24" Options - (if choosing an option(s) must include an "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 38 - %" stem diameter 02 - % NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	090 - 9"							
180 - 18" 240 - 24" Options - (if choosing an option(s) must include an "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 38 - %" stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	120 - 12"							
Options - (if choosing an option(s) must include an "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 38 - %" stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	150 - 15"							
Options - (if choosing an option(s) must include an "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 - ¾" stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	180 - 18"							
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 - ¾" stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	240 - 24"						_	
DM - Dial marking NH - Stainless steel tag PD - Acrylic window SG - Safety glass YW - 316 Stainless steel construction (5″ Everyangle™ connection) C4 - Traceable calibration certificate S1 - Silicone free 3B - ¾″ stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	Options - (if choosing an option(s) must include an "X	")					X	
NH - Stainless steel tag PD - Acrylic window SG - Safety glass YW - 316 Stainless steel construction (5" Everyangle™ connection) C4 - Traceable calibration certificate S1 - Silicone free 3B - ¾" stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	CS - Dual scale							
PD - Acrylic window SG - Safety glass YW - 316 Stainless steel construction (5″ Everyangle™ connection) C4 - Traceable calibration certificate S1 - Silicone free 3B - ¾″ stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	DM - Dial marking							
SG - Safety glass YW - 316 Stainless steel construction (5″ Everyangle™ connection) C4 - Traceable calibration certificate S1 - Silicone free 3B - ¾″ stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	NH - Stainless steel tag							
YW - 316 Stainless steel construction (5" Everyangle™ connection) C4 - Traceable calibration certificate S1 - Silicone free 3B - ¾" stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	PD - Acrylic window							
C4 - Traceable calibration certificate S1 - Silicone free 3B - %" stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	SG - Safety glass						SG	
S1 - Silicone free 3B - ¾" stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	YW - 316 Stainless steel construction (5" Everyangle™ cor	nnection)						
3B - %" stem diameter 02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)	C4 - <u>Traceable calibration certificate</u>							
02 - ¼ NPT (only available on rear connection) Temperature Ranges (see tables on pages 3 and 4 for more ranges)								
Temperature Ranges (see tables on pages 3 and 4 for more ranges)	3B - ¾" stem diameter							
Temperature Ranges (see tables on pages 3 and 4 for more ranges)	02 - 1/4 NPT (only available on rear connection)							
		more ranges)						
								0/200 °F



El Bimetal Thermometer





		Fahrenheit	Inner Range
	Inner °F	Outer °C	Restrictions
	-100/100	-70/40	
	-80/120	-60/50	
	-50/200	-40/93	
	-50/250	-40/120	
	-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	
##EC	0/250	-20/120	
Can be liquid filled	0/300	-20/150	
be lic	0/350	-20/170	
Can	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						
	-40/100	-40/210						
	-40/160	-40/320						
	-30/70	-20/160						
	-20/180	0/350						
	-20/120	0/250						
eq	-10/50	20/120						
Can be Liquid filled	-10/110	20/230						
	0/60	30/140	4" minimum					
	0/100	30/210						
Cal	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					



El Bimetal Thermometer

	Single Scale Ranges									
	Restrictions	۰F	°C	Restrictions						
		-100/100								
		-80/120								
		-50/200	-50/50							
		-50/250	-50/180							
		-40/120	-40/100							
		-40/160	-40/160							
		-20/120	-30/70							
	$4^{\!$	0/100	-20/180							
	$4^{\!$	0/150	-10/50							
	$4^{\!$	0/160	_							
ed		0/200	-10/110							
Can be Liquid filled		0/250	0/50	4" minimum						
Lie		0/300	0/60	4" minimum						
n be		0/400	_							
Ca		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								



El Bimetal Thermometer

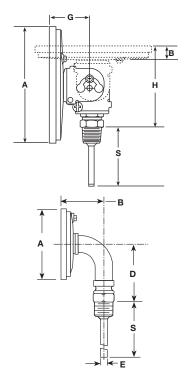
DIMENSIONS in [] are millimeters

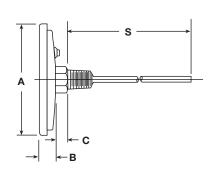
For reference only, consult Ashcroft for specific dimensional drawings

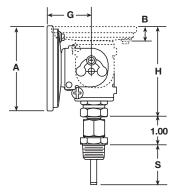
Dial Size (Inches)	Process Connection Locations	Α	В	С	D	G	н	s	NPT	Hex.	Weight (oz) ⁽¹⁾ S - 2 ¹ / ₂ ″
2	Rear (Plain)	2 ³ / ₃₂ [53]	3/8 [10]	3/8 [10]				(2)		11/16	41/2
2	Rear (Plain, pointed stem)	2¾32 [53]	¾ [10]	3/8 [10]				(2)		11/16	41/2
2	Rear (Threaded)	2 ³ / ₃₂ [53]	¾ [10]	¾ [10]				(2)	1/4	11/16	41/2
3	Rear	35/32 [80]	1/2	3/8 [10]				(2)	1/2	7/8	7
3	Lower	35/32 [80]	1 ½		25/8 [67]			(2)	1/2	7/8	11
3	Everyangle™	35/32 [80]	1/2			1 ²¹ / ₃₂ [42]	3 %	(2)	1/2	7/8	10
5	Rear	5½ [128]	19/32	3/8 [10]				(2)	1/2	7/8	16
5	Lower	5½ [128]	1 ¹⁵ ⁄16 [49]		35/8 [92]			(2)	1/2	7/8	26
5	Everyangle™	5½2 [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 $2\frac{1}{2}$, 4, 6, 9, 12, 15, 18 and $24^{\prime\prime}$ (STD.). Stem diameter is $\frac{1}{4}$ (STD.)
- 3. Stem tolerance is \pm 0.250"







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