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 filled for reduction of pointer flutter on high vibration application and provides improved response times
- Custom dials
- 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

Accuracy:

- Equipment skids
- Pharmaceutical / Biotech
- Food and beverages



EL Bimetal 3", 5" dial sizes





SPECIFICATIONS

| Stem Length: | 2½" to 24" | | | | | |
|------------------------------|--|--|--|--|--|--|
| Dial Sizes: | 3", 5" | | | | | |
| Dial Style: | Maxivision®, black figures on white background | | | | | |
| Overtemperature Limits: | Top of Range °F up to 250 251-550 | Max. Over Temperature 100% of span 50% of span | | | | |
| Process Connection: | ½ NPT and ½ NPT union | union and ½ NPT adjustable | | | | |
| Stem diameter: | 0.250", 0.375" | | | | | |
| Case & Stem: | 304 Stainless stee | el, 316 Stainless steel | | | | |
| Process Connection Location: | 3", 5" Everyangle™, Rear | | | | | |
| Pointer: | Black | | | | | |
| Window: | Polycarbonate | | | | | |
| Approvals: | RoHS | | | | | |

±1% of span ASME B40.200 (B40.3 Grade A)

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

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

MIN/MAX TEMPERATURE LIMITS

Ambient

-40 °F to 150 °F (-40 °C to 65 °C)



EL Bimetal Thermometer

| Dial Size and Mode | ORDERING CODE | Example: | 30EL | 60 | R | 060 | XC4 | 0/200°F |
|--|---|------------------------------------|--------------|----|---|-----|-----|----------|
| SoEL - 5" External adjust liquid filled bimetal Stem and Connection | Dial Size and Model | | | | | | | |
| Stem and Connection | 30EL - 3" External adjust liquid filled bimetal | | 30EL | | | | | |
| 42 - ½ NPT Union (Everyangle" only) (Allows thermometer to be rotated to desired orientation) 60 - ½ Fixed NPT 60 70 - ½ NPT Adjustable Union (Everyangle" only) (Allows thermometer to be rotated to desired orientation) Connection Location R - Rear connection E - Everyangle" connection Stem Length (Consult factory for custom or longer stem length) 025 - 2½ 440 - 4 400 - 9 120 - 12 150 - 15 180 - 18 240 - 24 360 - 36 Options - (if choosing an option(s) must include an "X") CS - Dual scale DH - Dial marking NH - SS tag YW - 316 SS construction (5" Everyangle" connection) C4 - Traceable calibration certificate C4 3B - ¾ stem diameter with ½ NPT Temperature Ranges (see table on page 3) | 50EL - 5" External adjust liquid filled bimetal | | | | | | | |
| 60 - ½ Fixed NPT 60 70 - ½ NPT Adjustable Union (Everyangle™ only) (Allows thermometer to be rotated to desired orientation) Connection Location R - Rear connection Stem Length (Consult factory for custom or longer stem length) 025 - 2½* 040 - 4* 040 - 4* 040 - 6* 120 - 12* 150 - 15* 180 - 18* 240 - 24* 360 - 36* Options - (if choosing an option(s) must include an "X") CS - Dual scale DM - Dial marking NH - SS tag YW - 316 SS construction (5* Everyangle™ connection) C4 - Traceable calibration certificate C4 3B - ¾* stem diameter with ½ NPT Temperature Ranges (see table on page 3) | Stem and Connection | | | | | | | |
| 70 - ½ NPT Adjustable Union (Everyangle" only) (Allows thermometer to be rotated to desired orientation) Connection Location | 42 - ½ NPT Union (Everyangle™ only) (Allows thermometer to | be rotated to desired orientation) | | | | | | |
| Connection Location R R - Rear connection R E - Everyangle™ connection R Stem Length (Consult factory for custom or longer stem length) Conder the properties of the propert | 60 - ½ Fixed NPT | | | 60 | | | | |
| R - Rear connection | 70 - ½ NPT Adjustable Union (Everyangle™ only) (Allows them | mometer to be rotated to desired | orientation) | | _ | | | |
| E - Everyangle onnection Stem Length (Consult factory for custom or longer stem length) O25 - 2½ O40 - 4" O60 - 6" O60 | Connection Location | | | | - | | | |
| Stem Length (Consult factory for custom or longer stem length) 025 - 2½ 040 - 4" | R - Rear connection | | | | R | | | |
| 025 - 2½ 040 - 4" 060 060 - 6" 060 090 - 9" 120 - 12" 150 - 15" 180 - 18" 240 - 24" 360 - 36" Options - (if choosing an option(s) must include an "X") CS - Dual scale DM - Dial marking NH - SS tag YW - 316 SS construction (5" Everyangle" connection) C4 - Traceable calibration certificate C4 3B - %" stem diameter with ½ NPT Temperature Ranges (see table on page 3) | E - Everyangle™ connection | | | | | | | |
| 040 - 4" 060 6" 060 090 - 9" 120 - 12" 150 - 15" 180 - 18" 180 - 18" 180 - 36" X X X CS - Dual scale X CS - Dual scale DM - Dial marking NH - SS tag YW - 316 SS construction (5" Everyangle™ connection) C4 - Traceable calibration certificate C4 3B - %" stem diameter with ½ NPT Temperature Ranges (see table on page 3) | Stem Length (Consult factory for custom or longer stem | length) | | | | | | |
| 060 - 6" 060 090 - 9" 120 - 12" 150 - 15" 180 - 18" 240 - 24" 360 - 36" Options - (if choosing an option(s) must include an "X") X CS - Dual scale DM - Dial marking NH - SS tag YW - 316 SS construction (5" Everyangle" connection) C4 - Traceable calibration certificate C4 3B - %" stem diameter with ½ NPT Temperature Ranges (see table on page 3) | 025 - 2½″ | | | | | | | |
| 090 - 9" 120 - 12" 150 - 15" 180 - 18" 240 - 24" 360 - 36" Options - (if choosing an option(s) must include an "X") CS - Dual scale DM - Dial marking NH - SS tag YW - 316 SS construction (5" Everyangle™ connection) C4 - Traceable calibration certificate C5 - Dual scale | 040 - 4" | | | | | | - | |
| 120 - 12″ 150 - 15″ 180 - 18″ 240 - 24″ 360 - 36" Options - (if choosing an option(s) must include an "X") CS - Dual scale DM - Dial marking NH - SS tag YW - 316 SS construction (5″ Everyangle™ connection) C4 - Traceable calibration certificate 3B - ¾″ stem diameter with ½ NPT Temperature Ranges (see table on page 3) | 060 - 6″ | | | | | 060 | - | |
| 150 - 15" 180 - 18" 240 - 24" 360 - 36" Options - (if choosing an option(s) must include an "X") CS - Dual scale DM - Dial marking NH - SS tag YW - 316 SS construction (5" Everyangle" connection) C4 - Traceable calibration certificate C4 3B - %" stem diameter with ½ NPT Temperature Ranges (see table on page 3) | 090 - 9″ | | | | | | - | |
| 180 - 18" 240 - 24" 360 - 36" Options - (if choosing an option(s) must include an "X") CS - Dual scale DM - Dial marking NH - SS tag YW - 316 SS construction (5" Everyangle" connection) C4 - Traceable calibration certificate AB - %" stem diameter with ½ NPT Temperature Ranges (see table on page 3) | 120 - 12 ["] | | | | | | - | |
| 240 - 24" 360 - 36" Options - (if choosing an option(s) must include an "X") CS - Dual scale DM - Dial marking NH - SS tag YW - 316 SS construction (5" Everyangle™ connection) C4 - Traceable calibration certificate C4 3B - %" stem diameter with ½ NPT Temperature Ranges (see table on page 3) | 150 - 15″ | | | | | | | |
| Options - (if choosing an option(s) must include an "X") CS - Dual scale DM - Dial marking NH - SS tag YW - 316 SS construction (5" Everyangle™ connection) C4 - Traceable calibration certificate C4 3B - %" stem diameter with ½ NPT Temperature Ranges (see table on page 3) | 180 - 18″ | | | | | | | |
| Options - (if choosing an option(s) must include an "X") CS - Dual scale DM - Dial marking NH - SS tag YW - 316 SS construction (5" Everyangle™ connection) C4 - Traceable calibration certificate C4 3B - ¾" stem diameter with ½ NPT Temperature Ranges (see table on page 3) | 240 - 24" | | | | | | - | |
| CS - Dual scale DM - Dial marking NH - SS tag YW - 316 SS construction (5″ Everyangle™ connection) C4 - Traceable calibration certificate 3B - ¾″ stem diameter with ½ NPT Temperature Ranges (see table on page 3) | 360 - 36" | | | | | | - | |
| DM - Dial marking NH - SS tag YW - 316 SS construction (5″ Everyangle™ connection) C4 - Traceable calibration certificate C4 3B - ¾″ stem diameter with ½ NPT Temperature Ranges (see table on page 3) | Options - (if choosing an option(s) must include an "X") | | | | | | X | |
| NH - SS tag YW - 316 SS construction (5" Everyangle™ connection) C4 - Traceable calibration certificate C4 3B - ¾" stem diameter with ½ NPT Temperature Ranges (see table on page 3) | CS - Dual scale | | | | | | | |
| YW - 316 SS construction (5" Everyangle™ connection) C4 - <u>Traceable calibration certificate</u> C4 3B - ¾" stem diameter with ½ NPT Temperature Ranges (see table on page 3) | DM - Dial marking | | | | | | | |
| C4 - Traceable calibration certificate C4 3B - ¾" stem diameter with ½ NPT Temperature Ranges (see table on page 3) | NH - SS tag | | | | | | | |
| 3B - ¾" stem diameter with ½ NPT Temperature Ranges (see table on page 3) | YW - 316 SS construction (5" Everyangle™ connection) | | | | | | | |
| Temperature Ranges (see table on page 3) | C4 - <u>Traceable calibration certificate</u> | | | | | | C4 | |
| | 3B - ¾" stem diameter with ½ NPT | | | | | | | |
| 0/200 °F 0/200 ° | Temperature Ranges (see table on page 3) | | | | | | | - |
| | 0/200 °F | | | | | | | 0/200 °F |



EL Bimetal Thermometer





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| Fahrenheit Inner Range | | | | | | | | | |
|------------------------|----------|-------------------------|--|--|--|--|--|--|--|
| Inner °F | Outer °C | Restrictions | | | | | | | |
| -40/120 | -40/50 | | | | | | | | |
| -40/160 | -40/70 | | | | | | | | |
| -20/120 | -30/50 | | | | | | | | |
| 0/100 | -20/40 | 4" min. for Everyangle™ | | | | | | | |
| 0/160 | -20/70 | 4" min. for Everyangle™ | | | | | | | |
| 0/150 | -20/65 | 4" min. for Everyangle™ | | | | | | | |
| 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 | 4" min. for Everyangle™ | | | | | | | |
| 30/130 | 0/55 | 4" min. for Everyangle™ | | | | | | | |
| 30/240 | 0/115 | | | | | | | | |
| 50/300 | 10/150 | | | | | | | | |
| 50/400 | 10/200 | | | | | | | | |
| 50/550 | 10/290 | | | | | | | | |

| Celsius Inner Range | | | | | | | | | |
|---------------------|----------|--------------|--|--|--|--|--|--|--|
| Inner °C | Outer °F | Restrictions | | | | | | | |
| -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 | | | | | | | | |
| | | | | | | | | | |

| 00/000 | -200 | | | | | | | |
|-------------------------|---------|---------|-------------------------|--|--|--|--|--|
| Single Scale Ranges | | | | | | | | |
| Restrictions | ٥F | °C | Restrictions | | | | | |
| | -50/250 | _ | | | | | | |
| | -40/100 | -40/100 | | | | | | |
| | -40/160 | -40/160 | | | | | | |
| | -20/120 | -30/70 | | | | | | |
| 4" min. for Everyangle™ | 0/100 | -20/180 | | | | | | |
| 4" min. for Everyangle™ | 0/150 | -10/50 | | | | | | |
| | 0/160 | _ | 4" min. for Everyangle™ | | | | | |
| | 0/200 | -10/110 | | | | | | |
| | 0/250 | 0/50 | 4" mimimum | | | | | |
| | 0/300 | 0/60 | 4" mimimum | | | | | |
| | 0/400 | _ | | | | | | |
| | 0/500 | 0/100 | | | | | | |
| 4" min. for Everyangle™ | 20/120 | 0/120 | | | | | | |
| 4" min. for Everyangle™ | 30/130 | 0/150 | | | | | | |
| | 30/240 | 0/200 | | | | | | |
| | 50/300 | 0/250 | | | | | | |
| | 50/400 | 0/300 | | | | | | |
| | 50/550 | 10/150 | | | | | | |
| | | | | | | | | |



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 | G | н | S | NPT | Hex. | Weight (oz) ⁽¹⁾ S - 2½″ |
|-----------------------|---------------------------------|--|-------|-----------|-----------------|---|-----|-----|------|---------------------------------------|
| 3 | Rear | 2 ³ / ₃₂ [53] | 1/2 | ¾ [10] | | | (2) | 1/2 | 7/8 | 7 |
| 3 | Everyangle™ | 2 ³ / ₃₂ [53] | 1/2 | ¾ [10] | | | (2) | 1/2 | 7/8 | 7 |
| 5 | Rear | 5½ [128] | 19/32 | ¾ [10] | | | (2) | 1/2 | 7/8 | 16 |
| 5 | Everyangle™ | 5½ [128] | 19/32 | | 1 1 1/8 [48] | 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 2½, 4, 6, 9, 12, 15, 18 and 24" (STD.). Stem diameter is ¼" (STD.)
- 3. Stem tolerance is $\pm 0.250^{\circ}$



