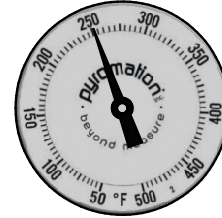
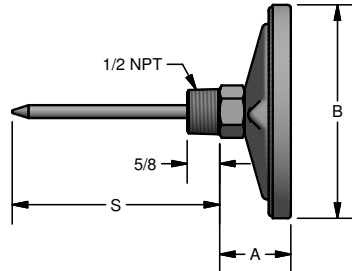


BI-METAL THERMOMETERS

Configuration Code BM01
Back-Connected

Back-connected, general-purpose Bi-Metal Thermometers can be directly immersed into a process, or can be installed in a variety of thermowells. These thermometers are available in various dial sizes, temperature ranges, sheath diameters, sheath lengths and mounting options. A conical tip is standard for 1/4" diameter stems in 2.5", 4", 6" and 9" lengths. All other sheath diameters and sheath lengths will be supplied with a rounded tip. Standard external component material consists of 304 stainless steel while 316 stainless steel wetted parts are available as an optional selection. The accuracy is ±1% full span per ASME B40.3 Grade A. These Bi-Metal Thermometer (BMI) series units come with a calibration feature, and each is easily calibrated by inserting an allen wrench into the reset opening.



ORDER CODES

Example Order Number: 1-0 BMI3B 1-1 49 - 2-0 004(1/2) - 3-0 9HN - 4-0 PC 4-1 ,I,M2 - 5-0 0800

1-0 Back-Connected Type and Size

| CODE | DIAL SIZE | "A" DIM | "B" DIM |
|-------|-----------|------------|------------|
| BMI3B | 3 Inch | 1.375 Inch | 3.187 Inch |
| BMI4B | 4 Inch | 1.375 Inch | 4.115 Inch |
| BMI5B | 5 Inch | 1.718 Inch | 5.040 Inch |

1-1 Sheath

| CODE | DIAMETER (INCHES) | MATERIAL |
|------|-------------------|-----------------------------|
| 49 | 0.25 | 304 SS (42 Inch max length) |
| 69 | 0.375 | 304 SS |

2-0 Sheath Length

Specify 3 digit length in inches
2(1/2) Inch minimum length required
120 Inch maximum length

3-0 Process Connection (304 SS)

| CODE | DIAMETER (INCHES) |
|------|---------------------------------|
| 9HP | No process connection |
| 9HN | 1/2 Inch NPT process connection |
| 9PU | 1/2 Inch NPT Union |
| 9RH | R 1/2 Inch BSPT |

4-0 Window Options

| CODE | DESCRIPTION |
|-------------------|---------------------------------------|
| G | Glass (Standard) |
| PC | Polycarbonate (up to 135 °C [300 °F]) |
| AC | Acrylic |
| SG | Safety Glass |
| TG ^[1] | Tempered Glass |

[1] Not available in 4 inch dial

4-1 Additional Options

| CODE | DESCRIPTION |
|-------------------|--|
| P | Plain Dial (No company name) |
| I | Stainless Steel Tag |
| M1 ^[1] | Minimum indicator or maximum indicator |
| M2 ^[1] | Both minimum and maximum indicator |
| SF ^[2] | Silicon-filled |

[1] Only available in a 3 inch or 5 inch dial size with glass or acrylic lens
[2] Only available with Safety Glass or Polycarbonate lens. Silicon filled thermometers are limited for use in process temperatures ranging from (-45 to 260) °C

5-0 Temperature Range

| CODE | RANGE | CODE | RANGE |
|------|---------------|------|----------------|
| 0020 | -75 to 175 °C | 0500 | -100 to 100 °F |
| 0100 | -50 to 100 °C | 0740 | 0 to 200 °F |
| 0240 | -20 to 120 °C | 0750 | 0 to 220 °F |
| 0330 | 0 to 100 °C | 0760 | 0 to 250 °F |
| 0350 | 0 to 150 °C | 0770 | 0 to 300 °F |
| 0370 | 0 to 200 °C | 0800 | 0 to 500 °F |
| 0380 | 0 to 250 °C | 0840 | 20 to 240 °F |
| 0390 | 0 to 300 °C | 0920 | 50 to 250 °F |
| 0410 | 0 to 450 °C | 1030 | 200 to 1000 °F |

Dual Temperature Range

| | | |
|------|----------------|---------------|
| 1100 | -40 to 160 °F | -40 to 70 °C |
| 1170 | 0 to 220 °F | -10 to 100 °C |
| 1180 | 0 to 250 °F | -20 to 120 °C |
| 1270 | 50 to 500 °F | 0 to 250 °C |
| 1310 | 200 to 1000 °F | 100 to 550 °C |

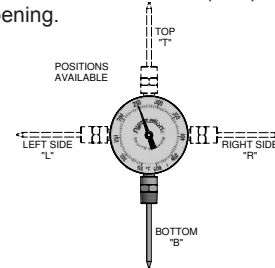
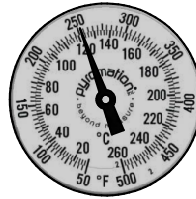
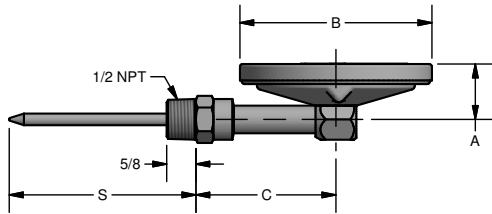
See page BM-7 for complete range list



BI-METAL THERMOMETERS

Configuration Code BM01
Side-Connected

Side-connected, general purpose Bi-Metal Thermometers can be directly immersed into a process, or can be used with various thermowell types. These thermometers are available in various dial sizes, temperature ranges, sheath diameters, and sheath lengths. They are available with several process mounting options, window options and dial features. A conical tip is standard for 1/4" diameter stems in 2.5", 4", 6" and 9" lengths. All other sheath diameters and sheath lengths will be supplied with a rounded tip. Standard external component material consists of 304 stainless steel while 316 stainless steel wetted parts are available as an optional selection. The stem position can be provided at 90° angles to accommodate various mounting conditions. The accuracy is ±1% full span per ASME B40.3 Grade A. These Bi-Metal Thermometer (BMI) series units come with a calibration feature, and each is easily calibrated by inserting an allen wrench into the reset opening.



ORDER CODES

Example Order Number: 1-0 1-1 2-0 3-0 4-0 5-0 5-1 6-0
BMI3S **49** - **B** - **007(1/2)** - **9PU** - **G ,SF** - **0410**

1-0 Side-Connected Type and Size

| CODE | DIAL SIZE | "A" DIM | "B" DIM | "C" DIM |
|-------|-----------|------------|------------|----------|
| BMI3S | 3 Inch | 1.187 Inch | 3.187 Inch | 2.3 Inch |
| BMI4S | 4 Inch | 1.187 Inch | 4.115 Inch | 3.0 Inch |
| BMI5S | 5 Inch | 1.625 Inch | 5.040 Inch | 3.0 Inch |

1-1 Sheath

| CODE | DIAMETER (INCHES) | MATERIAL |
|------|-------------------|-----------------------------|
| 49 | 0.25 | 304 SS (42 Inch max length) |
| 69 | 0.375 | 304 SS |

2-0 Dial Location

| CODE | DESCRIPTION |
|------|-------------------|
| B | Bottom (Standard) |
| R | 90 degree Right |
| L | 90 degree Left |
| T | Top |

3-0 Sheath Length

Specify 3 digit length in inches
 2(1/2) Inch minimum length required
 120 Inch maximum length

4-0 Process Connection (304 SS)

| CODE | DIAMETER (INCHES) |
|------|---------------------------------|
| 9HP | No process connection |
| 9HN | 1/2 Inch NPT process connection |
| 9PU | 1/2 Inch NPT Union |
| 9RH | R 1/2 Inch BSPT |

5-0 Window Options

| CODE | DESCRIPTION |
|-------------------|---------------------------------------|
| G | Glass (Standard) |
| PC | Polycarbonate (up to 135 °C [300 °F]) |
| AC | Acrylic |
| SG | Safety Glass |
| TG ^[1] | Tempered Glass |

[1] Not available in 4 inch dial

5-1 Additional Options

| CODE | DESCRIPTION |
|-------------------|------------------------------|
| P | Plain Dial (No company name) |
| I | Stainless Steel Tag |
| SF ^[1] | Silicon-filled |

[1] Only available with Safety Glass or Polycarbonate lens. Silicon filled thermometers are limited for use in process temperatures ranging from (-45 to 260) °C

6-0 Temperature Range

| CODE | RANGE | CODE | RANGE |
|------|---------------|------|----------------|
| 0020 | -75 to 175 °C | 0500 | -100 to 100 °F |
| 0100 | -50 to 100 °C | 0740 | 0 to 200 °F |
| 0240 | -20 to 120 °C | 0750 | 0 to 220 °F |
| 0330 | 0 to 100 °C | 0760 | 0 to 250 °F |
| 0350 | 0 to 150 °C | 0770 | 0 to 300 °F |
| 0370 | 0 to 200 °C | 0800 | 0 to 500 °F |
| 0380 | 0 to 250 °C | 0840 | 20 to 240 °F |
| 0390 | 0 to 300 °C | 0920 | 50 to 250 °F |
| 0410 | 0 to 450 °C | 1030 | 200 to 1000 °F |

Dual Temperature Range

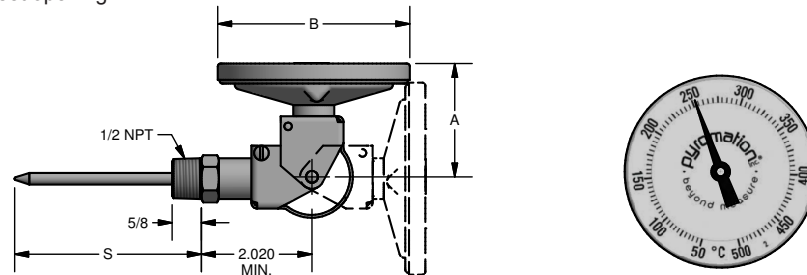
| | | |
|------|----------------|---------------|
| 1100 | -40 to 160 °F | -40 to 70 °C |
| 1170 | 0 to 220 °F | -10 to 100 °C |
| 1180 | 0 to 250 °F | -20 to 120 °C |
| 1270 | 50 to 500 °F | 0 to 250 °C |
| 1310 | 200 to 1000 °F | 100 to 550 °C |

See page BM-7 for complete range list

BI-METAL THERMOMETERS

Configuration Code BM01
Adjustable-Angle

Adjustable-Angle, general-purpose Bi-Metal Thermometers can be directly immersed into a process, or can be used with various thermowell types. These thermometers are available in various dial sizes, temperature ranges, sheath diameters, and sheath lengths. They are available with several process mounting options, window options and dial features. A conical tip is standard for 1/4" diameter stems in 2.5", 4", 6" and 9" lengths. All other sheath diameters and sheath lengths will be supplied with a rounded tip. Standard external component material consists of 304 stainless steel while 316 stainless steel wetted parts are available as an optional selection. The adjustable harness consists of stainless steel brackets with screws that loosen to allow 360° rotation of the head and 180° adjustment of stem position. The accuracy is ±1% full span per ASME B40.3 Grade A. These Bi-Metal Thermometer (BMI) series units come with a calibration feature, and each is easily calibrated by inserting an allen wrench into the reset opening.



ORDER CODES

Example Order Number:

1-0 1-1 2-0 3-0 4-0 4-1 5-0
BMI3A 49 - 006 - 9HN - PC,P - 0350

1-0 Adjustable-Angle Type and Size

| CODE | DIAL SIZE | "A" DIM | "B" DIM |
|-------|-----------|-----------|------------|
| BMI3A | 3 Inch | 2.43 Inch | 3.187 Inch |
| BMI4A | 4 Inch | 2.43 Inch | 4.115 Inch |
| BMI5A | 5 Inch | 2.66 Inch | 5.040 Inch |

1-1 Sheath

| CODE | DIAMETER (INCHES) | MATERIAL |
|------|-------------------|-----------------------------|
| 49 | 0.25 | 304 SS (42 Inch max length) |
| 69 | 0.375 | 304 SS |

2-0 Sheath Length

Specify 3 digit length in inches
 2(1/2) Inch minimum length required
 120 Inch maximum length

3-0 Process Connection (304 SS)

| CODE | DIAMETER (INCHES) |
|------|---------------------------------|
| 9HP | No process connection |
| 9HN | 1/2 Inch NPT process connection |
| 9PU | 1/2 Inch NPT Union |
| 9RH | R 1/2 Inch BSPT |

4-0 Window Options

| CODE | DESCRIPTION |
|-------------------|---------------------------------------|
| G | Glass (Standard) |
| PC | Polycarbonate (up to 135 °C [300 °F]) |
| AC | Acrylic |
| SG | Safety Glass |
| TG ^[1] | Tempered Glass |

[1] Not available in 4 inch dial

4-1 Additional Options

| CODE | DESCRIPTION |
|-------------------|------------------------------|
| P | Plain Dial (No company name) |
| I | Stainless Steel Tag |
| SF ^[1] | Silicon-filled |

[1] Only available with Safety Glass or Polycarbonate lens. Silicon filled thermometers are limited for use in process temperatures ranging from (-45 to 260) °C

5-0 Temperature Range

| CODE | RANGE | CODE | RANGE |
|------|---------------|------|----------------|
| 0020 | -75 to 175 °C | 0500 | -100 to 100 °F |
| 0100 | -50 to 100 °C | 0740 | 0 to 200 °F |
| 0240 | -20 to 120 °C | 0750 | 0 to 220 °F |
| 0330 | 0 to 100 °C | 0760 | 0 to 250 °F |
| 0350 | 0 to 150 °C | 0770 | 0 to 300 °F |
| 0370 | 0 to 200 °C | 0800 | 0 to 500 °F |
| 0380 | 0 to 250 °C | 0840 | 20 to 240 °F |
| 0390 | 0 to 300 °C | 0920 | 50 to 250 °F |
| 0410 | 0 to 450 °C | 1030 | 200 to 1000 °F |

Dual Temperature Range

| | | |
|------|----------------|---------------|
| 1100 | -40 to 160 °F | -40 to 70 °C |
| 1170 | 0 to 220 °F | -10 to 100 °C |
| 1180 | 0 to 250 °F | -20 to 120 °C |
| 1270 | 50 to 500 °F | 0 to 250 °C |
| 1310 | 200 to 1000 °F | 100 to 550 °C |

See page BM-7 for complete range list



BI-METAL THERMOMETERS

Range Table

Temperature Range - Degrees F

| CODE | RANGE | °/DIV |
|-----------------|----------------|-------|
| 0500 | -100 to 100 °F | 2° |
| 0560 | -50 to 120 °F | 2° |
| 0610 | -40 to 160 °F | 2° |
| 0700 | 0 to 140 °F | 2° |
| 0730 | 0 to 180 °F | 2° |
| 0740 | 0 to 200 °F | 2° |
| 0750 | 0 to 220 °F | 2° |
| 0760 | 0 to 250 °F | 2° |
| 0770 | 0 to 300 °F | 5° |
| 0800 | 0 to 500 °F | 10° |
| 0840 | 20 to 240 °F | 2° |
| 0850 | 25 to 125 °F | 1° |
| 0920 | 50 to 250 °F | 2° |
| 0930 | 50 to 300 °F | 2° |
| 0940 | 50 to 400 °F | 5° |
| 0950 | 50 to 500 °F | 5° |
| 0960 | 50 to 550 °F | 5° |
| 1000 | 100 to 800 °F | 10° |
| 1010 | 150 to 750 °F | 10° |
| 1030 | 200 to 1000 °F | 10° |
| Internal Ranges | | |
| 0480 | -150 to 150 °F | 2° |
| 0490 | -125 to 350 °F | 5° |
| 0510 | -100 to 150 °F | 2° |
| 0520 | -100 to 350 °F | 5° |
| 0530 | -100 to 600 °F | 5° |
| 0540 | -80 to 120 °F | 2° |
| 0550 | -60 to 210 °F | 2° |
| 0570 | -50 to 300 °F | 5° |
| 0580 | -50 to 400 °F | 5° |
| 0590 | -40 to 60 °F | 1° |
| 0600 | -40 to 120 °F | 2° |
| 0620 | -25 to 75 °F | 1° |
| 0630 | -20 to 120 °F | 1° |
| 0640 | -20 to 200 °F | 2° |
| 0650 | -20 to 340 °F | 5° |
| 0660 | -20 to 675 °F | 10° |
| 0670 | -10 to 220 °F | 2° |
| 0680 | 0 to 60 °F | 1° |
| 0690 | 0 to 100 °F | 1° |
| 0710 | 0 to 150 °F | 1° |
| 0720 | 0 to 160 °F | 1° |
| 0780 | 0 to 350 °F | 5° |
| 0790 | 0 to 400 °F | 5° |
| 0810 | 0 to 550 °F | 5° |
| 0820 | 0 to 600 °F | 10° |
| 0830 | 0 to 800 °F | 10° |
| 0860 | 30 to 120 °F | 1° |
| 0870 | 30 to 130 °F | 1° |
| 0880 | 30 to 300 °F | 2° |
| 0890 | 32 to 212 °F | 2° |
| 0900 | 40 to 240 °F | 2° |
| 0910 | 50 to 150 °F | 1° |
| 0970 | 100 to 200 °F | 1° |
| 0980 | 100 to 600 °F | 5° |
| 0990 | 100 to 700 °F | 10° |
| 1020 | 200 to 700 °F | 10° |

Temperature Range - Degrees C

| CODE | RANGE | °/DIV |
|-----------------|---------------|-------|
| 0020 | -75 to 175 °C | 5° |
| 0040 | -70 to 70 °C | 1° |
| 0080 | -50 to 25 °C | 1° |
| 0090 | -50 to 50 °C | 1° |
| 0100 | -50 to 100 °C | 1° |
| 0140 | -40 to 70 °C | 1° |
| 0240 | -20 to 120 °C | 1° |
| 0270 | -10 to 110 °C | 1° |
| 0300 | 0 to 50 °C | 1/2° |
| 0310 | 0 to 60 °C | 1° |
| 0320 | 0 to 80 °C | 1/2° |
| 0330 | 0 to 100 °C | 1° |
| 0350 | 0 to 150 °C | 1° |
| 0370 | 0 to 200 °C | 2° |
| 0380 | 0 to 250 °C | 2° |
| 0390 | 0 to 300 °C | 5° |
| 0400 | 0 to 400 °C | 5° |
| 0410 | 0 to 450 °C | 5° |
| 0460 | 100 to 400 °C | 5° |
| 0470 | 100 to 550 °C | 5° |
| Internal Ranges | | |
| 0010 | -100 to 50 °C | 2° |
| 0030 | -70 to 50 °C | 1° |
| 0050 | -70 to 100 °C | 2° |
| 0060 | -70 to 160 °C | 2° |
| 0070 | -60 to 160 °C | 2° |
| 0110 | -50 to 200 °C | 5° |
| 0120 | -50 to 250 °C | 5° |
| 0130 | -50 to 300 °C | 5° |
| 0150 | -40 to 200 °C | 2° |
| 0160 | -30 to 40 °C | 1/2° |
| 0170 | -30 to 50 °C | 1° |
| 0180 | -30 to 60 °C | 1° |
| 0190 | -30 to 70 °C | 1° |
| 0200 | -30 to 170 °C | 2° |
| 0210 | -25 to 25 °C | 1° |
| 0220 | -20 to 50 °C | 1° |
| 0230 | -20 to 70 °C | 1° |
| 0250 | -20 to 200 °C | 2° |
| 0260 | -10 to 50 °C | 1/2° |
| 0280 | -10 to 135 °C | 2° |
| 0290 | -10 to 260 °C | 2° |
| 0340 | 0 to 120 °C | 1° |
| 0360 | 0 to 160 °C | 2° |
| 0420 | 0 to 500 °C | 5° |
| 0430 | 50 to 400 °C | 5° |
| 0440 | 50 to 450 °C | 5° |
| 0450 | 50 to 500 °C | 5° |

Dual Temperature Range - Degrees F & C

| CODE | DUAL RANGE | | °/DIV |
|-----------------|----------------|---------------|----------|
| 1040 | -100 to 100 °F | -75 to 40 °C | 2,2° |
| 1100 | -40 to 160 °F | -40 to 70 °C | 2,1° |
| 1130 | 0 to 140 °F | -18 to 60 °C | 2,1° |
| 1150 | 0 to 180 °F | -18 to 82 °C | 2,1° |
| 1170 | 0 to 220 °F | -10 to 100 °C | 2,1° |
| 1180 | 0 to 250 °F | -20 to 120 °C | 2,1° |
| 1200 | 20 to 240 °F | -10 to 110 °C | 2,1° |
| 1210 | 25 to 125 °F | 0 to 50 °C | 1,(1/2)° |
| 1250 | 50 to 300 °F | 10 to 150 °C | 2,2° |
| 1260 | 50 to 400 °F | 0 to 200 °C | 5,2° |
| 1270 | 50 to 500 °F | 0 to 250 °C | 5,2° |
| 1300 | 150 to 750 °F | 50 to 400 °C | 10,5° |
| 1310 | 200 to 1000 °F | 100 to 550 °C | 10,5° |
| Internal Ranges | | | |
| 1050 | -100 to 350 °F | -75 to 175 °C | 5,5° |
| 1060 | -100 to 600 °F | -75 to 300 °C | 5,5° |
| 1070 | -60 to 210 °F | -50 to 100 °C | 2,1° |
| 1080 | -50 to 120 °F | -45 to 50 °C | 2,1° |
| 1090 | -40 to 120 °F | -40 to 50 °C | 2,1° |
| 1110 | -20 to 120 °F | -30 to 50 °C | 1,1° |
| 1120 | 0 to 100 °F | -18 to 38 °C | 1,(1/2)° |
| 1140 | 0 to 150 °F | -17 to 65 °C | 1,1° |
| 1160 | 0 to 200 °F | -10 to 90 °C | 2,5° |
| 1190 | 0 to 800 °F | -15 to 425 °C | 10,5° |
| 1220 | 30 to 130 °F | 0 to 55 °C | 1,(1/2)° |
| 1230 | 30 to 300 °F | 0 to 150 °C | 1,1° |
| 1240 | 32 to 212 °F | 0 to 100 °C | 2,1° |
| 1280 | 50 to 550 °F | 15 to 285 °C | 5,5° |
| 1290 | 100 to 600 °F | 40 to 310 °C | 5,5° |

