

Magwell Model M200 Series bimetallic thermometer is a temperature measurement device. It converts the media's temperature into mechanical displacement using a bimetallic strip. The bimetallic strip consists of two different metals having different coefficients of thermal expansion. Bimetallic Thermometers are normally installed within a Thermowell. Bimetallic Thermometers are known for Accuracy, Repeatability, Reliability and Safety.

Standard Features

- ◆ SS 316 Case and Bayonet Ring
- ◆ Micro-Zero Adjustable Pointer
- ◆ Shatter Proof Safety Glass
- ◆ Silicone filled to reduce Pointer Flutter
- ◆ Design Standard EN 13190, ASME B40.200
- ◆ Weather Protection IP 66 / IP67

Applications

- ◆ Offshore Oil Rigs & Platforms
- ◆ Chemical & Petrochemical Plants
- ◆ Power & Utility
- ◆ Water & Waste Water Treatment Facilities
- ◆ HVAC
- ◆ Chemical Injections Skids
- ◆ Food & Beverage
- ◆ Pharmaceutical
- ◆ Other Critical Process Industries



Specification

Design Standard :	EN 13190, ASME B40.200
Dial Sizes :	4", 5" & 6"
Accuracy :	± 1.0% of Span
Ambient Temperature :	-40 / +65° C
Range :	-40°C to 600°C
Sensing Elements :	Bimetallic Strip
Case & Bayonet Material :	SS 316
Connection :	1/2" NPT Adjustable Union, 1/2" NPT
Dial :	Aluminium, Black Graduation on White Background
Pointer :	Micro-Zero adjustable, Aluminum, Black Powder Coated
Gaskets :	Neoprene / NBR
Window :	Shatterproof Safety Glass
Ingress Protection :	IP66 / IP67
Fill Fluid Options :	Silicon Oil
Stem Length :	2.5" to 24"
Stem Diameter :	6.6 mm, 8 mm
Units :	°C, °F, Dual Scale

Note

Thermowells should be used whenever the stem would be exposed to pressure, corrosion, velocity, abrasion or shear forces. The temperature sensor is inserted in the open end of the thermowell and typically spring-loaded to ensure that the outside tip of the temperature sensor is in metal to metal contact with the inside tip of the thermowell. Thermowells also make it possible to remove the thermometer without losing pressure or the contents of the process.

Model Selection Guide

Description	Coding
Dial	1
4" / 100 mm	100
5" / 125 mm	125
6" / 160 mm	160
Model	2
M200 - Magwell Any Angle Bimetallic Thermometer	M200
Mounting / Connection Orientation	3
Bottom Connection	BT
Center Back	CB
Center Back Any Angle	EA
Process Connection	4
1/4" NPT (M)	2MN
1/4" BSP (M)	2MB
1/2" NPT (M)	4MN
1/2" BSP (M)	4MB
3/8" NPT (M)	3MN
3/8" BSP (M)	3MB
1/2" Adjustable Union	2AU
Case Filling	5
Dry Case	D
Silicone	S

Description	Coding
Stem Length	6
Please specify the Stem length in mm	XXXX
Range	7
Refer to Page 3, Chart 1	
Units	8
° Centigrade	C
° Fahrenheit	F
Dual Scale °C/°F	D
Options	9
5 Point Calibration Certificate	CC
316 L Tag Plate	TP
Custom Dial Design	CD
Material Test Certificate	MT
NOTE	
* Any Angle model is possible only in the following Dial sizes 4", 5" & 6" only.	

Sample Model Selection Code

1	2	3	4	5	6	7	8	9				
100	M200	EA	4MN	S	200	0/100	C	CC	TP	CD	MT	

Range

Bimetallic Thermometer Temperature Ranges		
Dial Ranges in °C	Scale Divisions	Error Limits acc. Cl. 1 ±°C
0 / 50	1	
0 / 80	1	1
0 / 100	1	1
0 / 120	2	2
0 / 150	2	2
0 / 160	2	2
0 / 200	2	2
0 / 220	2	2
0 / 250	5	2.5
0 / 280	5	5
0 / 300	5	5
0 / 350	5	5
0 / 400	10	5
0 / 450	10	5
0 / 500	10	5
0 / 550	10	5
0 / 600	10	10
-10 / +50	1	1
-10 / +110	1	1
-20 / +60	1	1
-20 / +180	1	1
-30 / +50	1	1
-30 / +70	1	1
-40 / + 40	1	1
-40 / +60	1	1
-40 / 160	2	1
-50 / +50	1	1
-50 / 100	2	1
-50 / 150	2	1

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Magwell LLC
537 Cajundome Boulevard, Suite 111
Lafayette, LA 70506

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