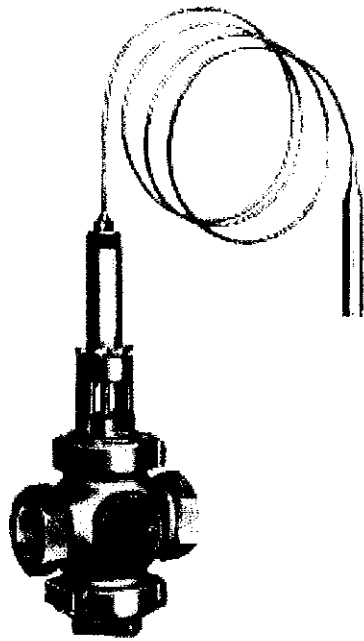


M SERIES TEMPERATURE REGULATOR

SIZES 1/2" - 1"

PRESSURES to 250 PSIG at 366°F¹



M SERIES

APPLICATION DATA

- Small Flow Storage Heating
- Small Flow Storage Cooling
- Instantaneous Heaters

VALVE RATINGS

Valve Ends ASME/ANSI	Pressure PSIG (bar)	Temperature ² °F (°C)
CAST IRON B16.1 NPT	200 (13.8)	@ 366 (186)
BRONZE B16.1 NPT	200 (13.2)	@ 366 (186)

TEMPERATURE RANGES (°F)

20-120	70-120	120-220	150-200	220-270
50-250	70-170	120-170	170-220	270-370
50-400	100-150	170-270	220-320	

- Steam or Liquid Service
- Liquid Filled Thermal Element
- Adjusting Sleeve
- Models M and MK Easily Switched between Heating and Cooling
- Ideal for Small Flow Applications
- Unaffected by Inlet Pressure Changes
- Large Internal Ports Minimize Clogging
- Easy Out Cage Trim on GTS Model

MODELS

- **M_** - 3/4"-1" Bronze, 100/100¹ PSI Max. Inlet, Heating
- **M_K** - 3/4"-1" Cast Iron, 100/100¹ PSI Max. Inlet, Heating
- **ME** - 1/2" Bronze, 200/50¹ PSI Max. Inlet, Heating
- **MD** - 1/2" Bronze, 100/50¹ PSI Max. Inlet, Heating
- **MC** - 1/2" Bronze, 50/50¹ PSI Max. Inlet, Heating

OPTIONS

- **R** - Cooling (all except ME)
- **C** - Cooling (all except ME)
- Alternate Bulb Casings
- Alternate Thermal Element
- Armored Capillary
- Calibrated Dial

For Sizing Capacity Tables see Page 54

1. Insert letter code for options in model number as required.

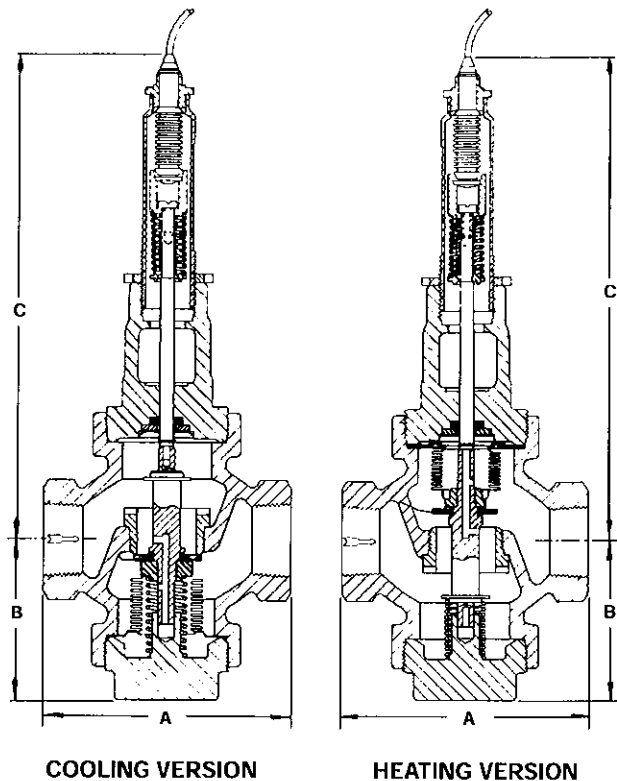
M SERIES TEMPERATURE REGULATOR

SPECIFICATIONS

The temperature regulator shall be self-contained, direct actuated and respond to changes in sensed temperature as little as 1/4°F. Thermostatic system shall be solid liquid filled compact bulb and bellows unit. Yielding spring shall prevent bellows overstressing at temperatures up to 25% over range. Thermostatic element shall be easily replaceable without shutting off the process. Valve travel per degree of temperature change shall be uniform throughout entire adjustable range. Valve stem shall be sealed with low friction, single ring seal requiring no adjustment.

MATERIALS OF CONSTRUCTION

Body, Cast Iron	ASTM A126 Cl. B
Body, Cast Bronze	ASTM B61 UNS C92200
Trim	SS
Bulb Casing, std	Brass
opt.	316 SS
opt.	Monel
Thermal Element, std	Copper
opt.	316 SS
opt.	Monel



DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)

Service	A	B	C	Weight
Cooling	4 1/2 (114)	2 7/8 (73)	8 3/4 (222)	8 (3.6)
Heating	4 1/2 (114)	2 7/8 (73)	8 3/4 (222)	8 (3.6)

M SERIES CAPACITY TABLES

Saturated Steam Capacities (lbs/hr)

INLET STEAM PRESSURE (PSIG)	TEMP. CHANGE AT BULB (°F)	OUTLET PRESSURE 1/2OR LESS OF INLET PRESSURE (50° ELEMENT)*			
		1/2" ME-2	1/2" MD-2	1/2" MC-2	3/4", 1" M & MK
5	5	5	11	15	33
	10	8	18	28	55
	20	13	32	46	94
10	5	7	15	22	58
	10	12	26	39	100
	20	20	45	66	165
15	5	9	19	27	80
	10	15	34	50	138
	20	25	58	87	228
20	5	10	22	32	100
	10	18	40	58	175
	20	29	68	101	285
25	5	12	26	37	118
	10	21	46	67	210
	20	34	78	116	340
30	5	12	27	40	135
	10	22	49	71	242
	20	37	82	120	393
35	5	13	30	44	153
	10	24	54	80	275
	20	41	92	133	438
40	5	15	34	49	170
	10	27	60	88	305
	20	46	102	147	490
45	5	16	36	53	185
	10	29	65	95	335
	20	49	110	160	540
50	5	18	40	58	200
	10	32	71	104	360
	20	54	120	174	590
60	5	22	41	-	230
	10	36	74	-	420
	20	57	123	-	680
70	5	25	47	-	260
	10	41	84	-	470
	20	65	140	-	765
80	5	27	52	-	290
	10	46	93	-	525
	20	72	155	-	845
90	5	31	58	-	320
	10	51	103	-	570
	20	80	173	-	950
100	5	34	64	-	345
	10	56	114	-	620
	20	88	190	-	1000

Water Capacities (gpm)

PRESSURE DIFFERENTIAL (PSIG)	TEMP. CHANGE AT BULB (°F)	(50° ELEMENT)		
		1/2" MD-2	1/2" MC-2	3/4", 1" M & MK
5	5	0.7	1.1	4.5
	10	1.4	2.1	8.0
	20	2.5	3.7	13.0
10	5	1.0	1.5	6.4
	10	1.9	2.9	11.4
	20	3.3	5.2	18.8
15	5	1.1	1.7	7.7
	10	2.2	3.5	14.0
	20	3.8	6.1	23.0
20	5	1.3	2.0	8.9
	10	2.5	4.0	16.2
	20	4.4	7.0	26.6
25	5	1.5	2.3	10.0
	10	2.9	4.5	18.0
	20	5.2	7.9	29.6
30	5	1.6	2.5	11.0
	10	3.1	4.9	19.7
	20	5.4	8.6	32.5
35	5	1.7	2.7	11.8
	10	3.3	5.3	21.2
	20	5.8	9.3	35.0
40	5	1.8	2.9	12.7
	10	3.6	5.6	22.7
	20	6.2	9.9	37.5
45	5	2.0	3.0	13.4
	10	3.8	6.0	24.1
	20	6.6	10.1	40.0
50	5	2.1	3.2	14.2
	10	4.1	6.3	25.5
	20	7.1	10.4	42.0
75	5	2.6	-	17.0
	10	5.0	-	31.0
	20	8.7	-	51.6
100	5	3.0	-	20.0
	10	5.7	-	36.0
	20	9.9	-	59.4

* Capacities shown are for 50°F span. For 100°F span, double temperature change for equivalent flow.