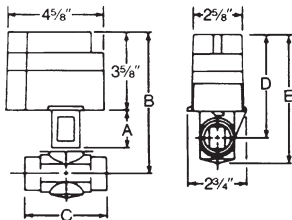


1311-102



VALVE SIZE	DIMENSIONS (inches)				
	A	B	C	D	E
3/4"	1 3/4	6 1/2	2 7/8	4 11/16	5 5/8
1"	1 15/16	6 3/4	3 1/8	4 13/16	5 7/8
1 1/4"	2 1/8	7 1/8	3 11/16	5	6 1/4

HYDRONIC ZONE CONTROLS

Two Types of Valves, 2-Wire or 3-Wire, for Zoning Hydronic Systems up to 50 PSI

FEATURES

- Quiet operation.
- Valve stem made of stainless steel.
- Automatic recycling manual operator shows valve position at all times.
- Built-in auxiliary contacts to control burner or circulator relay.
- Motor can be removed from valve assembly without draining system.

SPECIFICATIONS

Electric rating of auxiliary switch. 2.0A at 24VAC
Four zone valves operate with one 40 VA transformer

CONTRACTOR TIP: FOR HEAT/COOL APPLICATIONS, SEE 752-1 CONTROL ON PAGE 137.

DO NOT CHANGE VALVE ASSEMBLY WITHOUT DRAINING BOILER OR WHILE BOILER WATER IS HOT. FAILURE TO RELIEVE WATER PRESSURE OR WAIT UNTIL WATER COOLS COULD RESULT IN SCALDING INJURIES

PARTS AND ACCESSORIES See end of this section for additional parts and accessories

- F19-0097 — Motor assembly for 3-wire zone valves
- F19-0104 — Motor assembly for 2-wire zone valves
- F84-0433 — Valve assembly for 3/4" (both series)
- F84-0434 — Valve assembly for 1" (both series)
- F84-0435 — Valve assembly for 1 1/4" (both series)
- F92-0227 — Water seal kits for 3/4" (both series)
- F92-0228 — Water seal kits for 1" (both series)
- F92-0229 — Water seal kits for 1 1/4" (both series)



TECHNICAL HELP

Zone Valve Troubleshooting. See pages 298-299

3-WIRE, 24V VALVES WITH SCREW TERMINAL WIRING PANEL AND AUXILIARY SWITCH (SEE TABLE AT BOTTOM FOR COMPATIBLE THERMOSTATS)

Model Number	Tubing Size (I.D.)	24VAC Thermostat Circuit Rating	Time Cycle	Maximum Differential Across Valve	Maximum Water Temp.	Maximum System Pressure	Flow Capacity Cv	Friction Loss Equivalents Ft. of Tubing
1311-102	3/4"	0.4A ①	Open: 45 seconds Close: 45 seconds	15 PSI	240°F (116°C)	50 PSI	23.5 ③	2 1/2
1311-103	1"	0.4A ①	Open: 45 seconds Close: 45 seconds	15 PSI	240°F (116°C)	50 PSI	37.0 ③	3.5
1311-104	1 1/4"	0.4A ①	Open: 45 seconds Close: 45 seconds	15 PSI	240°F (116°C)	50 PSI	42.2 ③	6.5

2-WIRE, 24V VALVES WITH SCREW TERMINAL WIRING PANEL AND AUXILIARY SWITCH

Model Number	Tubing Size (I.D.)	24VAC Thermostat Circuit Rating	Time Cycle	Maximum Differential Across Valve	Maximum Water Temp.	Maximum System Pressure	Flow Capacity Cv	Friction Loss Equivalents Ft. of Tubing
1361-102	3/4"	0.2A ②	Open: 45 seconds Close: 60 seconds	15 PSI	240°F (116°C)	50 PSI	23.5 ③	2 1/2
1361-103	1"	0.2A ②	Open: 45 seconds Close: 60 seconds	15 PSI	240°F (116°C)	50 PSI	37.0 ③	3.5
1361-104	1 1/4"	0.2A ②	Open: 45 seconds Close: 60 seconds	15 PSI	240°F (116°C)	50 PSI	42.2 ③	6.5

① Valve current is 0.4A only during opening or closing. For proper anticipation, select thermostat designed for use with a 3-wire zone valve.
② Valve current is 0.52A when opening but 0.2A when fully open: therefore set anticipator for 0.2A. ③ GPM @ 1 PSI drop.

1311 COMPATIBLE THERMOSTATS TABLE

Model Number	Programming Options	Contacts	Profile	Terminals
1E35-910	Non-Programmable	Sealed Mercury Cell	Vertical	4, 5, 6
1F35-910	Non-Programmable	Sealed Mercury Cell	Horizontal	4, R5, Y6
1F90-371	5+1+1, 5+2	Electronic	Horizontal	RC, RH, W, Y, G, MV, O, B, +, S, -, 6
1F96-344	Non-Programmable	Electronic	Horizontal	RC, RH, W, Y, G, MV, O, B, +, S, -, 6
1F97-371	7-Day	Electronic	Horizontal	RC, RH, W, Y, G, MV, O, B, +, S, -, 6
1F95-1277 Touch Screen	7-Day, 5+1+1, or Non-Programmable	Electronic	Horizontal	RC, RH, C, W/E, W2, Y, Y2, G, O, B, 6, L, +, S, -
1F97-1277 Touch Screen	7-Day, 5+1+1, or Non-Programmable	Electronic	Horizontal	RC, RH, C, W, Y, G, O, B, W/E, L, 6, +, S, -
1F97-391	7-Day	Electronic	Horizontal	RC, RH, W, Y, G, 6, HM1, HM2, S1, S2, S3
1F80-0471	5+1+1, 5+2, or Non-Programmable	Electronic	Horizontal	RC, RH, C, W, Y, G, O/B
1F86-0471	Non-Programmable	Electronic	Horizontal	RC, RH, C, W, Y, O/B

HYDRONIC