Single and Multi-Function Aquastat Controllers
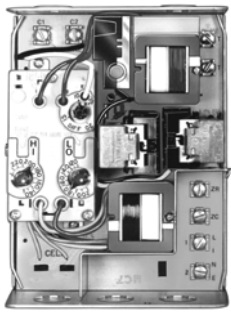
R8182 Combination Protectorelay® and Hydronic Heating Controllers

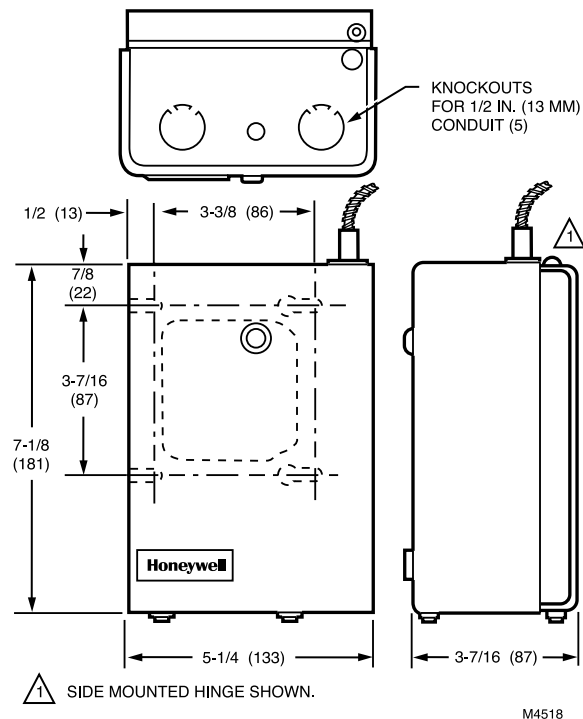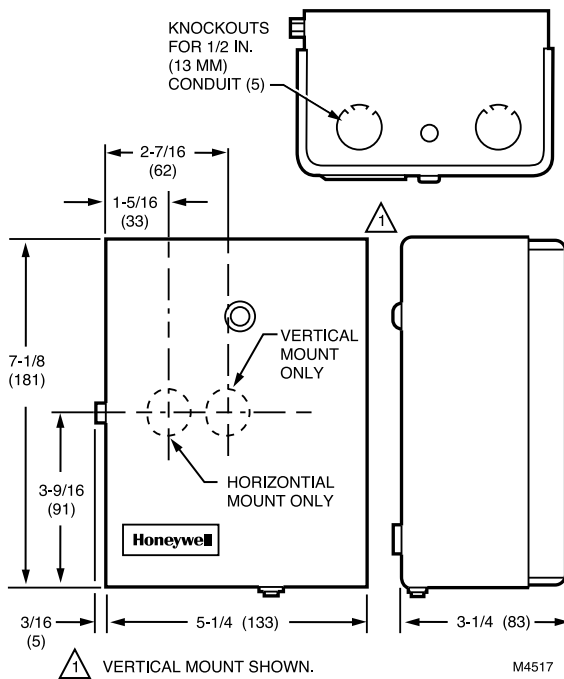
Vertical or Horizontal Mount

Junction Box Mount

Immersion type Aquastat® controller and oil burner primary control provides high limit and low limit/circulator control for oil-fired hydronic heating systems.
- Use in intermittent ignition applications.
- Capable of zone control with zone valves.
- Circulator zone control with ZC and ZR terminals on R8182D,E,H,J. Flame failure during the running cycle results in a 45 second attempt to restart.
- If unsuccessful, safety shutoff occurs, requiring manual reset before burner can be restarted.
- R8182D,E,F mount directly on burner; R8182H,J mount on 4 x 4 in. junction box and include 5 ft (1.5 m) armored capillary with remote sensor.
- C554A Cadmium Sulfide Flame Detector and a 24 Vac thermostat required.

Dimensions in inches (millimeters)

VERTICAL MOUNT SHOWN.   M4517

SIDE MOUNTED HINGE SHOWN.

M4518

Dimensions, Approximate: 7 1/8 in. high x 5 1/4 in. wide x 3 7/16 in. deep (181 mm high x 133 mm wide x 87 mm deep.)
Anticipator Setting: 0.2 A
Electrical Ratings (ignition): 360 VA
Electrical Ratings (burner AFL): 4.4 A @ 120 Vac
Electrical Ratings (burner ALR): 26.4A @ 120 Vac
Maximum Power Consumption: 9 W
Voltage: 120 Vac
Frequency: 60 Hz
Timing Safety Switch: 45 sec
Maximum Ambient Temperature: 250 F at element (121 C at element)

Operating Range, High Limit: 130 F to 240 F (54 C to 116 C)
Operating Range, Low Limit: 110 F to 220 F (43 C to 104 C)
Maximum Operating Pressure: 200 psi on immersion well; 100 psi direct immersion. (1378 kPa on immersion well; 90 kPa direct immersion.)
Operating Humidity Range (% RH): 0 to 95% RH, non-condensing

Approvals:
Canadian Standards Association: Certified: File No. LR95329-1
Underwriters Laboratories Inc. UL Listed: File No. listed: MP268, Vol. 3,4 (R8182D,E,F), Vol. 37 (R8182H,J), Sec. 1.

Well Assemblies

Well Assemblies

Product Number	Description	Materials	Insertion Length	Shell (internal diameter)	Spud Thread Size	Includes	Used With	Picture
121371A	Copper. Bulb size: 3/8 in. x 3 in. (10 mm x 76 mm). Well size: 3 in. (76 mm) insertion, 1 1/2 in. NPT. Includes mounting clamp.	Copper	1 1/2 in.	3/8 in.	1/2 in. x 14 NPT	121371 Mounting Clamp	—	
121371AA	Well clamp assembly with clamp capillary 21371 (1) screws 804644 and nuts 60156	—	1 1/2 in.	3/8 in.	1/2 in. x 14 NPT	121371 Mounting Clamp, Spud Set screw for armored capillary, Plug, and Nut.	—	
121371B	Copper. Bulb size: 3/8 in. x 3 in. (10 mm x 76 mm). Well size: 3 in. (76 mm) insertion, 1 1/2 in. (38 mm) insulation, 3/4 in. NPT. Includes mounting clamp.	Copper	1 1/2 in.	3/8 in.	3/4 in. x 14 NPT	121371 Mounting Clamp	—	
121371E	Stainless steel. Bulb size: 3/8 in. x 3 in. (10 mm x 76 mm). Well size: 3 in. (76 mm) insertion, 1 1/2 in. (38 mm) insulation, 1/2 in. (13 mm) NPT. Includes mounting clamp.	Stainless Steel	1 1/2 in.	3/8 in.	1/2 in. x 14 NPT	121371 Mounting Clamp	—	
121371L	Copper. Bulb size: 3/8 in. x 3 in. (10 mm x 76 mm). Well size: 3 in. (76 mm) insertion, 3 in. (76 mm) insulation, 1/2 in. NPT. Includes mounting clamp.	Copper	3 in.	3/8 in.	1/2 in. x 14 NPT	121371 Mounting Clamp	—	
121371M	Copper. Bulb size: 3/8 in. x 3 in. (10 mm x 76 mm). Well size: 3 in. (76 mm) insertion, 1 1/2 in. (38 mm) insulation, 3/4 in. NPT. Includes mounting clamp.	Copper	3 in.	3/8 in.	3/4 in. x 14 NPT	121371 Mounting Clamp	—	
123869A	Copper. Bulb size: 3/8 in. x 3 in. (10 mm x 76 mm). Well size: 3 in. (76 mm) insertion, 1 1/2 in. (38 mm) insulation, 1/2 in. NPT.	Copper	1 1/2 in.	3/8 in.	1/2 in. x 14 NPT	125975 Well Clamp	—	
123870A	Copper. Bulb size: 3/8 in. x 3 in. (10 mm x 76 mm). Well size: 3 in. (76 mm) insertion, 1 1/2 in. (38 mm) insulation, 3/4 in. NPT.	Copper	1 1/2 in.	3/8 in.	3/4 in. x 14 NPT	—	L4081; L4006	
123871A	Copper. Bulb size: 3/8 in. x 3 in. (10 mm x 76 mm). Well size: 3 in. (76 mm) insertion, 3 in. (76 mm) insulation, 3/4 in. NPT.	Copper	3 in.	3/8 in.	3/4 in. x 14 NPT	—	—	