

R8182 Combination Protectorelay® and Hydronic Heating Controllers



Anticipator Setting: 0.2 A
Electrical Ratings (ignition): 360 VA
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)

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. 8*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.

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

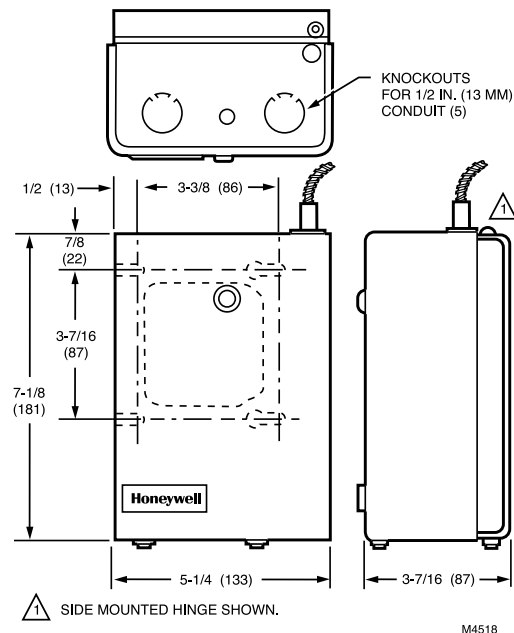
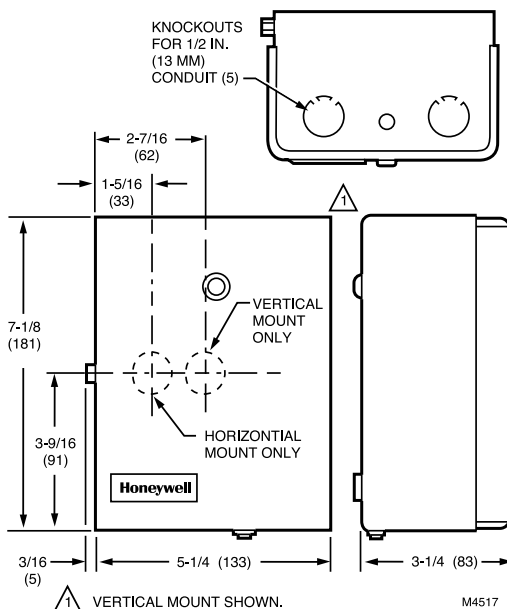
Canadian Standards Association: Certified: File No. LR95329-1
Underwriters Laboratories, Inc: UL Listed: File No. listed: MP268, Vol. 3,4 (R8182D,E,F), Vol. 37 (R8182H,J), Sec. 1.

Residential
Combustion Controls

	Product Number	Differential Temperature (F)	Insulation Depth		Mounting	Electrical Ratings (burner)		Includes
			(inch)	(mm)		(AFL)	(ALR)	
*	R8182D1079/U	High limit: 10 F fixed; Low limit/circulator: 10 F to 25 F adj.	1 1/2 in.	38 mm	Vertical Mount	4.4 A @ 120 Vac	26.4 A @ 120 Vac	Auxiliary ZC and ZR terminals may be used to provide circulator zone control through an R845A Switching Relay. Heat-conductive compound and vertical case.
*	R8182D1111/U	High limit: 10 F fixed; Low limit/circulator: 10 F to 25 F adj.	1 1/2 in.	38 mm	Horizontal	4.4 A @ 120 Vac	26.4 A @ 120 Vac	Auxiliary ZC and ZR terminals may be used to provide circulator zone control through an R845A Switching Relay. Heat-conductive compound and vertical case.
*	R8182H1070/U	High limit: 10 F fixed; Low limit/circulator: 10 F to 25 F adj.	1 1/2 in.	38 mm	Junction box mount	4.4 A @ 120 Vac	26.4 A @ 120 Vac	Auxiliary ZC and ZR terminals may be used to provide circulator zone control through an R845A Switching Relay. Heat-conductive compound and horizontal case.

* TRADELINE models • SUPER TRADELINE models

Dimensions in inches (millimeters)



Well Assemblies

Well Assemblies

Product Number	Description	Materials	Capillary Diameter	Insertion Length	Shell (internal diameter)	Spud Thread Size	Includes	
121371A/U	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	5/64 in.	3 in.; 1 1/2 in.	3/8 in.	1/2 in. x 14 NPT	121371 Mounting Clamp	
121371AA/U	Well clamp assembly with clamp capillary 21371 (1) screws 804644 and nuts 60156	—	—	—	—	—	121371 Mounting Clamp, Spud Set screw for armored capillary, Plug, and Nut.	
121371B/U	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	5/64 in.	3 in.; 1 1/2 in.	3/8 in.	3/4 in. x 14 NPT	121371 Mounting Clamp	
121371E/U	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	5/64 in.	3 in. 1 1/2 in.	3/8 in.	1/2 in. x 14 NPT	121371 Mounting Clamp	
121371L/U	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	5/64 in.	3 in. 3 in.	3/8 in.	1/2 in. x 14 NPT	121371 Mounting Clamp	
121371M/U	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	5/64 in.	3 in. 3 in.	3/8 in.	3/4 in. x 14 NPT	121371 Mounting Clamp	
123869A/U	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	—	3 in. 1 1/2 in.	3/8 in.	1/2 in. x 14 NPT	—	
123870A/U	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	—	3 in. 1 1/2 in.	3/8 in.	3/4 in. x 14 NPT	—	
123871A/U	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 in.	3/8 in.	3/4 in. x 14 NPT	—	
123872A/U	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	Copper	—	3 in. 3 in.	3/8 in.	1/2 in. NPT	—	
124299AA/U	Bulb size: 3/8 in. (10 mm). Well size: 3 in. (76 mm) insertion, 1 1/2 in. (38 mm) insulation, 3/4 in. NPT. Includes set screw with spud for armored capillary with plug.	Copper	—	3 in. 1 1/2 in.	3/8 in.	3/4 in. x 14 NPT	Set screw in spud for armored capillary with plug	
138134B/0021/U	Bulb size: 3/8 in. x 3 in. (10 mm x 76 mm). Well size: 3 in. (76 mm) insertion, 3/4 in. NPT	Zinc plated	—	3 1/2 in. 4 1/2 in.	—	3/4 in. x 14 NPT	—	