Note:
Warranty does not cover damage to freezing. The unit may be drained manually. However, Rinnai highly recommends that drain down solenoid valves be installed that will automatically drain if power is lost. Rinnai also recommends the installation of a surge protector with terminals that attaches to the PC board in the unit and allows the solenoid valves to operate if the unit is disabled due to an error code. When electrical power to the water heater fails, the normally closed solenoid valve closes (stopping the flow of water into the heater) and the normally open solenoid valve opens (allowing the heater and associated piping to drain). Ensure that the drain for the solenoids runs to the outside environment to prevent discharging water inside the building causing water damage.

Solenoid

Cold Water Supply

Hot Water Supply

Gas Supply

Building Outlets

Route Drains per Local Code

1/4" Normally Open Solenoid

1/4" Normally Open Solenoid

3/4" Normally Closed Solenoid

Vacuum Breaker

Sensei Circulation Unit

Note:
Heat trace ALL water pipe and fittings located outside home, attic, crawl space, or building structure (ALL water pipe and fittings above dashed line in drawing).

Note:
ALL pipe and fittings shown below dashed line should be located inside home or building structure. The vacuum breaker line should be located in the building structure.

For this application:
Maximum Pipe Length (Hot Water Supply and Return Lines)
3/4" - 400ft
1/2" - 100ft


Reference: Rinnai Tankless Single Unit Freeze Protection

For this application:

Maximum Pipe Length (Hot Water Supply and Return Lines)
3/4" - 400ft
1/2" - 100ft