# RU199i, RU180i, RU160i, RU130i

INTERNAL (INDOOR) CONDENSING TANKLESS WATER HEATER

#### RESIDENTIAL



#### ■ FLEXIBLE VENTING OPTIONS

- Concentric or Schedule 40 PVC/CPVC
- Direct Vent (Concentric and Twin Pipe)
- Non-Direct Vent (Room Air)
- Common Vent (Direct Vent and Room Air)
- Maximum Equivalent Vent Lengths:

#### Twin Pipe

	and the second s				
	Vent Sizes	2 in. (51 mm)	3 in. (76 mm)		
	Vent Lengths	65 ft (20 m)	150 ft (46 m)		
(	Concentric				
	Vent Sizes	2 in. X 4 in.	3 in. X 5 in.		
	Vent Lengths	65 ft (20 m)	150 ft (46 m)		

## ■ EASE OF INSTALLATION AND SERVICEABILITY

- Compact Design to Save Space
- Wi-Fi Technology for Remote Monitoring and Management
- Sliding Mounting Bracket for Easy Installation
- Simple Gas Conversion

#### OPTIONAL ACCESSORIES

Room Air Screen, Condensate Neutralizer, ScaleCutter, Drain Down Kit, Additional Controllers, Pipe Cover, Recirculation Pump, DPS/MIS Switch, EZConnect™ Cables, Control-R™ Wi-Fi Module, Wireless Accessories, and many more. Visit rinnai.us for a complete list of accessories.

SUPER-HIGH-EFFICIENCY (CONDENSING) TANKLESS WATER HEATER						
Installation Type	Internal (Indoor) Residential Applications. Manufactured (Mobile) Home Certified RU199i (REU-N3237FF-US) RU180i (REU-N2934FF-US)					
Model Numbers						
	RU160i (REU-N2530FF-US)					
	RU130i (REU-N2024FF-US)					
Approved Gas Types	Natural and Propane					
Uniform Energy Factor (UEF)	RU199i, RU180i, RU160i:	0.93				
	RU130i:	0.91				
Energy Factor (EF)	RU199i:					
(Canada)	RU180i, RU160i, RU130i:	0.95				
High Altitude Approved	Up to 10,200 ft (3,109 m)					
Water Flow Control	Water Flow Sensor, Electronic Water Control and Bypass Control					
Controller	Standard: Integrated Controller					
	Optional: MC-195T-US, MC-100V-1US, BC-100V-1US, MCC-91-2US					
Certifications	AHRI, ANSI Z21.10.3, CSA 4.3, a ENERGY STAR®	· · · · · · · · · · · · · · · · · · ·				

#### Warranty

- Heat Exchanger: 15 years or 12,000 operation hours, whichever occurs first
- All Other Parts and Components: 5 Years
- Reasonable Labor: 1 Year

#### **Safety Devices**

Flame Failure - Flame Rod, Boiling Protection, Combustion Fan RPM Check, Over Current - Glass Fuse, Remaining Flame (OHS) and Automatic Frost Protection

#### **Included with Purchase**

Tankless Water Heater, Wall Mounting Bracket, Pressure Relief Valve and Adapter, Isolation Valve Kit, Vent Screens (x2), Vent Screen Screws (x2) and Self-Tapping Screws (x2)

#### **Additional Features**

- Mobile Home Certified
- Complies with South Coast Air Quality Management District 14 ng/J or 20 ppm NOx Emission Levels
- Ultra Low NOx
- Complies with South Coast
   Tankless Rack System<sup>™</sup> Compatible
  - 1/2 in. (13 mm) Gas Line Compatible











CERTIFIED TO ANSI Z21.10.3 - CSA 4.3

### SENSEI™ TECHNICAL SPECIFICATIONS

	SPECIFICATION	RU199i	RU180i	RU160i	RU130i		
Dime	ensions - w, h, d	18.5 in. x 26.4 in. x 11.4 in. (470 mm x 670 mm x 290 mm)					
	mum Gas sumption Btu/h	15,000					
	imum Gas sumption Btu/h	199,000	180,000	160,000	130,000		
Flow (Min	Rate <sup>1</sup> - Max)	0.26 - 9.8 GPM (1.0 - 37 L/min)	0.26 - 9.0 GPM (1.0 - 34 L/min)	0.26 - 8.0 GPM (1.0 - 30 L/min)	0.26 - 6.6 GPM (1.0 - 24 L/min)		
_	Flow Rate with meter Adjustment	11 GPM (42 L/min)	10 GPM (38 L/min)	9 GPM (34 L/min)	7 GPM (26 L/min)		
Weig	ght	64 lb (29 kg)	64 lb (29 kg)	62 lb (28 kg)	62 lb (28 kg)		
Soun	nd Level	48 dB	47 dB	47 dB	47 dB		
	Normal	84 W	65 W	52 W	38 W		
ca	Standby		1.3 W				
Electrical	Freeze Protection	148 W					
Ele	Max Current	4 Amps					
	Fuse		10 A	mps			
Temperature		<ul> <li>Minimum: 98° F (37° C) Default</li> <li>Maximum: 120° F (49° C) Default 140° F (60° C) With Parameter Adjustment</li> </ul>					
By-Pass Flow Control		Electronic					
Gas S	Supply Pressure <sup>2</sup>	<ul> <li>Natural: 3.5 in. w.c 10.5 in. w.c.</li> <li>Propane: 8.0 in. w.c 13.5 in. w.c.</li> </ul>					
Igniti	ion System	Direct Electronic Ignition					
Elect	ronic Connections	<ul> <li>Appliance: AC 120 Volts, 60Hz.</li> <li>Temperature Controller: DC 12 Volts (Digital)</li> </ul>					
Water Supply Pressure		<ul> <li>Minimum: 50 PSI (Recommended 60-80 PSI for max performance)</li> <li>Maximum: 150 PSI</li> </ul>					
Controller Cable		Non-Polarized Two Core Cable (Minimum 22 AWG)					
Service Connections		<ul> <li>Gas Supply: 3/4 in. (19 mm) NPT</li> <li>Cold Water Inlet: 3/4 in. (19 mm) NPT</li> <li>Hot Water Outlet: 3/4 in. (19 mm) NPT</li> <li>Condensate Drain: 1/2 in. (13 mm) NPT</li> </ul>					
Clearances		<ul> <li>Top: 2 in. (51 mm)*</li> <li>Bottom/Ground: 12 in. (305 mm)</li> <li>Front: 0 in.**</li> <li>Back: 0 in.</li> <li>Sides: 2 in. (51 mm)***</li> <li>Vent: 0 in.</li> </ul>					

0 in. from vent components Clearance for servicing is 24 in. (610 mm) in front of water heater

Add 0.25 in. (6.35 mm) for recess box

<sup>1</sup> Minimum flow may vary slightly depending on the temperature setting and the inlet water temperature. Minimum activation flow is 0.4 GPM (1.5 L/min).

The maximum gas supply pressure must not exceed the value specified by the manufacturer.

#### SENSEI™ WATER FLOW CURVE

Flow curves apply only to incoming water temperatures of 70° F (21° C) or less. For incoming water temperatures greater than 70° F (21° C), please contact Rinnai.



