# 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 (PVC/CPVC and PP)

Vent Sizes	2 in. (51 mm)	3 in. (76 mm)				
Vent Lengths	75 ft (23 m)	150 ft (46 m)				
Concentric						
Vent Sizes	2 in. X 4 in.	3 in. X 5 in.				
Vent Lengths	75 ft (23 m)	150 ft (46 m)				

## EASE OF INSTALLATION AND SERVICEABILITY

- Smart-Sense™: Adaptive gas valve technology No gas conversion kit required.
- Versa-Vent™: Outdoor vent cap adapts to any SENSEI<sup>TM</sup> RX Series model for outdoor installation.
- Smart Connect™: Allows you to connect your phone or tablet to SENSEI<sup>™</sup> RX Series Via Bluetooth® using Rinnai Central<sup>™</sup> app.
- Quick-Flush™: Provides an efficient flushing procedure to make periodic preventive maintenance a simple task to perform.

SUPER-HIGH-EFFICIENCY (CONDENSING) TANKLESS WATER HEATER			
Installation Type	Internal (Indoor) Residential Applications External (Outdoor) Residential Applications with Outdoor Vent Cap		
Model Numbers	RXP199i (REU-NBP3237FF-US) RXP160i (REU-NBP2530FF-US)		
Approved Gas Types	Natural and Propane		
Efficiency	UEF: 0.98 (RXP199i) 0.97 (RXP160i)		
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-601-BK/W		
Certifications	AHRI, ANSI Z21.10.3, CSA 4.3, and ENERGY STAR®		

### Warranty

- Heat Exchanger: 15 years or 12,000 operation hours, whichever occurs
- All Other Parts and Components: 5 years
- Reasonable Labor: 5 years\* \*Requires product to be registered within 90 days of installation or labor warranty defaults to 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, Vent Screens (x2), Screws (x2), Self-Tapping Screws (x4) and Thermal Bypass Valve

### **Additional Features**

Ultra Low NOx

- Tankless Rack System™ Compatible
- Mobile Home Certified
   1/2 in. (13 mm) Gas Line Compatible
  - Complies with South Coast Air Quality Management District 14 ng/J or 20 ppm NOx **Emission Levels**
  - EZConnect—1 RXP and 1 RX as System











## **OPTIONAL ACCESSORIES**

## CERTIFIED TO ANSI Z21.10.3 — CSA 4.3

Description	Part Number	Description	Part Number	Description	Part Number
Isolation Valves and PRV	MIVK-T-LW	Pipe Cover*	PCD11-SHS	Controllers	MC-601-BK/W, MC-195T-US
Outdoor Vent Cap*	RXOVC	Recess Box for SENSEI <sup>™</sup> RX Series*	RGBCTWHRX	Condensate Neutralizer	804000074
Dedicated Return with Isolation Valves and PRV*	107000639	Bottom Plate for Pipe Cover*	109001364	Scale Cutter	103000038
Retrofit Door for RX in RGB-CTWH-4*	104000335	Wireless Module*	RWM200	Scale Cutter Refill	103000039
Retrofit Door for RX in RGB-CTWH-3, 2, 1*	104000336	Recirculation Push Button*	RPB200	OPU Switch	REU-OPU3
Gas Conversion Kit (Labels Only)*	104000330	EZConnect Cable*	REU-EZC-3	Leak Detection Kit*	RXLeakKit

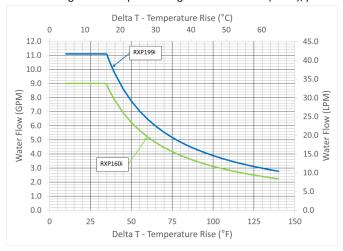
SENSEI <sup>™</sup> RXP TECHNICAL SPECIFICATIONS						
SPECIFICATION		RXP199i	RXP160i			
Dimensions - w, h, d		18.5 in. x 25.8 in. x 11.4 in. (470 mm x 654 mm x 290 mm)				
Minimum Gas Consumption Btu/h		15,000				
Maximum Gas Consumption Btu/h		199,000	160,000			
Flow Rate <sup>1</sup> (Min - Max)		0.13 - 11.0 GPM (0.5 - 42 L/min)	0.13 - 9.0 GPM (0.5 - 34 L/min)			
We	ight	58 lb (26 kg)	57 lb (26 kg)			
Sound Level		49 dB	48 dB			
	Normal	98 W	73 W			
_	Normal with Pump Operation	170 W	149 W			
trica	Standby	1.3 W				
Electrical	Freeze Protection	174 W				
	Max Current	4 Amps				
	Fuse	10 Amps				
Temperature		<ul> <li>Minimum: 98° F (37° C) Default (Crossover Mode: 120° F (49° C))</li> <li>Maximum: 120° F (49° C) Default 140° F (60° C) With Parameter Adjustment</li> </ul>				
By-Pass Flow Control		Electronic				
Gas 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>				
Ignition System		Direct Electronic Ignition				
	Appliance: AC 120 Volts, 60Hz.     Temperature Controller: DC 12 Volts (Digital)					
	eter Supply  Minimum: 15 PSI (Recommended 50 PSI for max performance)  Maximum: 150 PSI  Maximum: 150 PSI					
Serv	• Gas Supply: 3/4 in. (19 mm) NPT • Cold Water Inlet: 3/4 in. (19 mm) NPT • Hot Water Outlet: 3/4 in. (19 mm) NPT • Condensate Drain: 1/2 in. (13 mm) NPT					
Clea	arances	<ul> <li>Top: 2 in. (51 mm)*</li> <li>Bottom/Ground: 12 in. (305 mm)</li> <li>Front: 0 in.**</li> </ul>	<ul> <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.

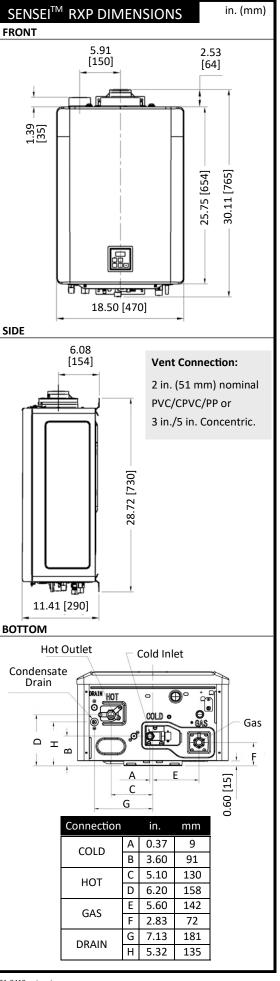
The maximum gas supply pressure must not exceed the value specified by the manufacturer. Rinnal products are continually being updated and improved; therefore, specifications are subject to change without prior notice.

## SENSEI<sup>™</sup> RXP 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.

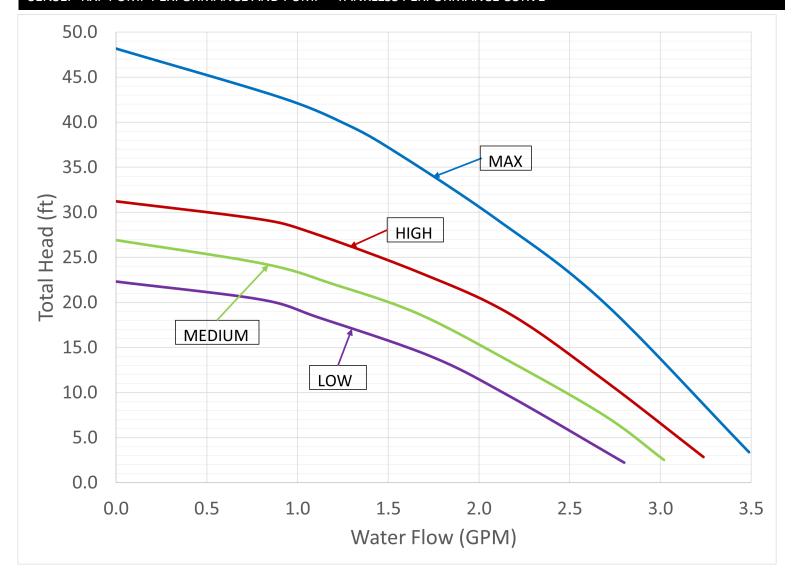


NOTE: Maximum flow rates may vary based on set temperature, Delta T and altitude.



<sup>&</sup>lt;sup>1</sup> Activation flow rate may vary slightly depending on the temperature setting and the inlet water

# SENSEI<sup>™</sup> RXP PUMP PERFORMANCE AND PUMP + TANKLESS PERFORMANCE CURVE



**Recirculation Pump Control** 

**Internal Multi-Speed DC Pump** 

**Maximum Recirculation Pipe Lengths** 

- Smart-Circ.™ "learns" users' hot water patterns to activate recirculation.
- Manual schedule selection is available with Accessory controllers (MC-195T or Wi-Fi module).

Integrated pump allows for recirculation through a dedicated return line or crossover with thermal bypass valve.

- 400 equivalent feet for 3/4 in. pipe diameter
- 100 equivalent feet for 1/2 in. pipe diameter

Take equivalent elbow lengths into consideration when calculating pipe length.

**For dedicated return lines:** Total length includes both hot water supply and dedicated return lines.

**Cross-over mode:** Total length includes both hot water supply and cold water piping length from the tankless water heater to the thermal bypass valve. Cross-over mode requires the use of a thermal bypass valve (included).