



## SEISCO® TANKLESS ELECTRIC WATER HEATERS

Microtherm, Inc. 223 W. Airtex – Houston, TX. 77090

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[www.seisco.com](http://www.seisco.com)

### RESIDENTIAL

### COMMON 240 VAC APPLICATION

### LISTINGS: UL 499, UL CSA, ANSI

### INSTALLATION

#### Dimensions (inches):

**RA-28 (or RA-22)**

15 3/4 X 15 3/4 X 6 1/4

#### Water Fittings

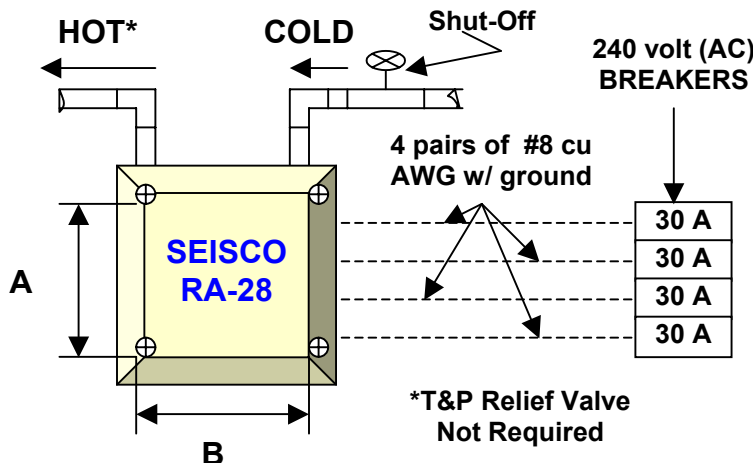
Inlet: 3/4 inches

Outlet: 3/4 inches

#### Mounting Holes

A – 14 1/4 inches

B – 16 1/8 inches



### ELECTRICAL

Main panel or Sub-panel for the RA-28 requires 8 single spaces for four (4) double-pole, 30 amp, 240 VAC breakers.

**RECOMMEND  
200 AMP  
HOUSE SERVICE**

### SEISCO MODEL SELECTION (Hot Water For The Whole House, Apartment or Condo)

#### AREAS WITH GROUND WATER > 55°F

Families 4 or less:

- 1) With Standard Faucets\* use an RA-22 or RA-28.
- 2) In homes having Spa-tubs use:
  - a) one RA-28, or
  - b) two RA-18's plumbed in parallel, or
  - c) one RA-18 in the Master Bath plumbed in series with the primary whole-house RA-28.

Large Families and/or large homes:

- 1) Use two RA-18's or two RA-22's in parallel.

#### AREAS WITH GROUND WATER < 55°F

Families 4 or less:

- 1) With Standard Faucets\* use one RA-28.
- 2) In homes having Spa-tubs use:
  - a) two RA-22's plumbed in parallel, or
  - b) one RA-18 in the Master Bath plumbed in series with the primary whole-house RA-28.

Large Families and/or large homes:

- 1) Use two RA-22's or two RA-28's in parallel.

\* Standard Faucets in a home use from 1.0 to 3.0 gallons per minute (GPM).

Refer to the [Seisco Product Guide, Sections 2 & 4](#), for more detail on Model Selections and Applications.

### FEATURES

- **AN ENDLESS SUPPLY OF HOT WATER!!\***
- **HEATS WATER ONLY WHEN YOU NEED IT!!**
- Very Small & Compact (15" X 15")
- Light Weight
- Microprocessor Control
- Power Sharing Technology
- Continuous Venting
- No Moving Parts
- No Restriction To Flow
- Self-Diagnostics
- Redundant Safety Devices
- Heating Chamber-Made of High Performance Polymer Nylon Material

### BENEFITS

- **SAVES ENERGY /SAVES MONEY!!**
- No Tank to Fill or Drain
- Saves Space
- Accurate Temperatures
- Rust & Corrosion Free
- Standard Style Heating Elements
- Maintains Available Flow
- SAFER - Prevents Scalding
- Versatile Application
- Reduces Service Costs
- Easy & Simple to Maintain
- Reduces Scaling & Sediment Build-Up

### WARRANTY

- **10 Year Limited**
- **3 Years**
- Materials & Workmanship on Chamber & Control Board
- **1 Year**
- on Heating Elements
- **First 3 Months**
- on Service Labor Reimbursement (Refer to Mfg. Warranty for details)

\* Maximum system flow will depend on design & model selection.

## SEISCO FLOW RATES, TEMPERATURE RISE & HEAT RATINGS

Seisco Model	Heat Output Rating (BTU)	Max. GPM for Temp. Rise 42° – 120°F	Max. GPM for Temp. Rise 50° – 120°F	Max. GPM for Temp. Rise 55° – 120°F	Max. GPM for Temp. Rise 60° – 120°F	Max. GPM for Temp. Rise 65° – 120°F
RA-9	30,710	0.7	0.9	1.0	1.1	1.2
RA-11	37,540	1.0	1.1	1.2	1.3	1.4
RA-14	47,780	1.2	1.4	1.5	1.6	1.7
RA-18	61,430	1.5	1.8	2.0	2.2	2.4
RA-22	75,080	2.0	2.2	2.4	2.6	2.8
RA-28	95,560	2.5	2.8	3.0	3.2	3.4

GPM = Gallons per minute (Flow Rate) Note: Increasing the temp. output from 120°F will reduce the max. GPM at the higher temp. but will not change the total GPM of tempered water (hot & cold mix).

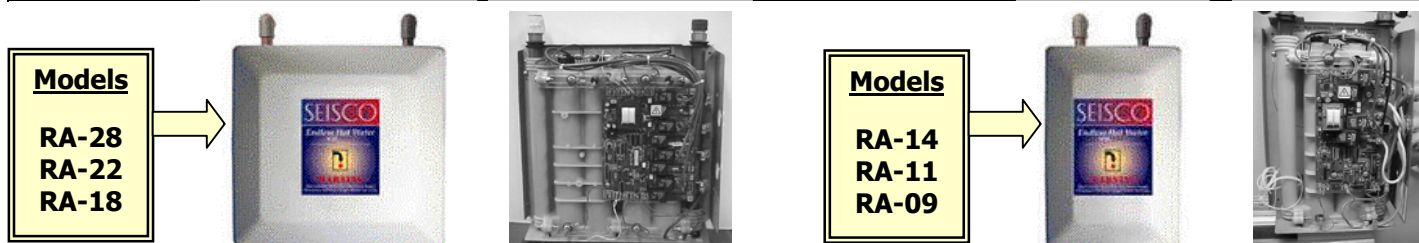
## SEISCO RA-28 OPERATING COST COMPARISONS (US)

<b><u>Average Assumptions Used:</u></b> Hot Water Use – 64 gals./day Electric Rate - 8.4 ¢/kWh Natural Gas Rate - \$0.90/therm Propane Gas - \$1.35/qal.	<b>SEISCO RA-28</b>	<b>50 Gal. Electric Tank</b>	<b>50 Gal. Natural Gas* Tank</b>	<b>75 Gal. Natural Gas* Tank</b>	<b>50 Gal. Propane Gas* Tank</b>
	<b>\$270 /yr.</b>	<b>\$380 /yr.</b>	<b>\$387 /yr.</b>	<b>\$452 /yr.</b>	<b>\$563 /yr.</b>

\*Stack or Vent Losses from most gas water heaters, depending upon location, result in substantial loss of conditioned air. Air in your home that you have paid to heat or cool. For installations of these gas fired heaters, including gas fired tankless heaters installed within the living area, including basements, you should add to these estimated costs at least \$100 annually to allow for the expense of the loss of conditioned air.

## SEISCO MODEL SPECIFICATIONS

Seisco Model	Weight (LBS)	Height (INCHES)	Width (INCHES)	Depth (INCHES)	Plumbing Fittings (INCHES)	Heating Elements (WATTS X NO.)	Energy Factor
RA-9	15	15 ¾	10 ¼	6 ¼	¾	4500 X 2	0.99+
RA-11	15	15 ¾	10 ¼	6 ¼	¾	5500 X 2	0.99+
RA-14	15	15 ¾	10 ¼	6 ¼	¾	7000 X 2	0.99+
RA-18	23	15 ¾	15 ¾	6 ¼	¾	4500 X 4	0.99+
RA-22	23	15 ¾	15 ¾	6 ¼	¾	5500 X 4	0.99+
RA-28	23	15 ¾	15 ¾	6 ¼	¾	7000 X 4	0.99+



## SEISCO ELECTRICAL RATINGS

Seisco Model	Maximum Power Rating (kW)	Voltage Rating (VAC)	Maximum Current Rating (AMPS)	Number of Circuits Required (Two Wire)	Number of Circuit Breakers Required (Double Pole)	Circuit Breaker Size (AMPS)
RA-9	9	240	37.5	1	1	40
RA-11	11	240	46	1	1	50
RA-14	14	240	58	2*	2*	30
RA-18	18	240	75	2	2	40
RA-22	22	240	91	2	2	50
RA-28	28	240	116	4**	4**	30

\*Contact Microtherm for equipment necessary to accept one 60 Amp Circuit\*\*Contact Microtherm for equipment necessary to accept two 60 Amp Circuits