

THERMA-PURE™

Ultra High Purity Chemical and DI Water Heaters

For applications where temperature stability, high purity,
and reliability are of critical importance.



APPLIED INTEGRATED SYSTEMS

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Ultra High Purity Chemical and DI Water Heaters

Introducing *Therma-Pure™*, Applied Integrated Systems' ultra high purity, in-line, chemical and DI water heaters for applications where temperature stability, high purity, and reliability are of critical importance.

AIS's unique patented technology is ideal for re-circulation and single pass applications. Innovative, patented *Plug-Flow™* design provides a continuous, smooth, flow path for your fluid, without any sharp corners or crevices where contaminants can accumulate. Since the *Therma-Pure™* does not rely on immersion-type heating elements, all issues associated with hot-spots, which leads to costly chemical contamination, are eliminated.

Features and Benefits

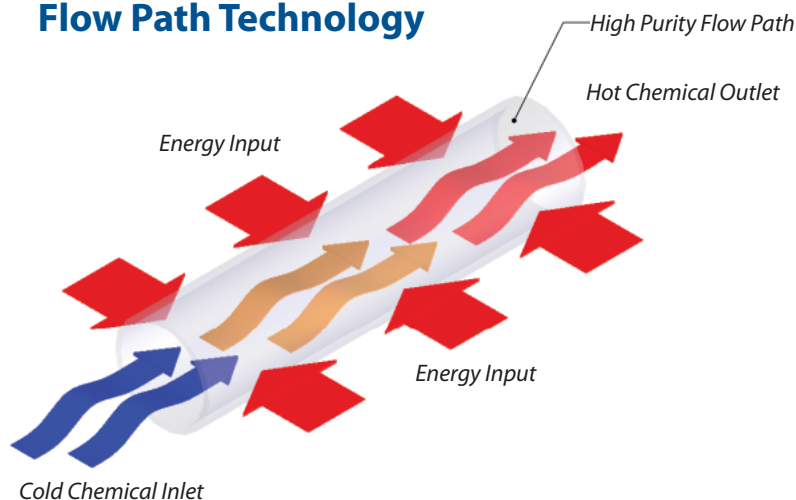
- **ULTRA HIGH PURITY HEATING**
All Teflon flow path with no seals, no o-rings, no pipe threads, and no metal exposure eliminates any potential for contamination and assures the highest purity level is maintained.
- **HIGH TEMPERATURE ACCURACY**
High efficiency heating module design coupled with unique resistance heating technology assures tight temperature accuracy is achieved.
- **VESSEL-LESS FLOW PATH DESIGN**
Patented *Plug-Flow™* path design allows the *Therma-Pure™* heater to be mounted in any orientation, such as side, back, or upright.
- **LOW COST**
Design simplicity along with modularity and high efficiency makes the *Therma-Pure™* the lowest cost of ownership heater in the market.
- **SINGLE OR MULTIPLE FLOW PATHS**
Unique flow path design allows for single or multiple chemical streams with independent temperature control... all in one heater.
- **PATENTED *PLUG-FLOW™* FLUID PATH**
Patented *Plug-Flow™* path design provides a continuous, smooth, flow path, without any sharp corners or crevices where contaminants can accumulate.
- **FLEXIBLE DESIGN**
Modular design approach allows for a wide range of wattages, physical shapes, electrical configuration, plumbing connections, mounting styles... all configured around your preference.
- **COMPACT FOOTPRINT**
High efficiency heating module coupled with modular design approach allows for the most compact footprints in the market.
- **OPTIONAL CONTROL SYSTEM**
Therma-Pure™ heaters can be operated with either a user provided or AIS provided control system.
- **HIGH RELIABILITY**
The *Therma-Pure™* product series only utilize the highest quality components available in the market, resulting in years of maintenance free operation.
- **USER FRIENDLY**
Intuitive design makes it simple to install and operate.
- **SAFETY**
Process thermocouple, process over-temperature thermocouple, and redundant over-temperature interlocks. CE, SEMI, UL compliant.

Specifications

Wetted Flow Path	Teflon (PFA)
Heating Technology	High-efficiency resistive heating
Heating Capacity	Up to 30 KW
Voltages	120 - 480 VAC, 1Ø, 3Ø, 50/60Hz
Temperature Control	Up to 190°C
Temperature Accuracy	±0.1°C (varies with application)
Pressure Rating	Up to 689 Kpa (100 psig)
Flow Rate Range	Up to 50 lpm (13 gpm)
Temperature Sensors	J-Type, K-Type, or RTD
Fluid Connections	1/4" (6mm) up to 1.0" (25mm) Flare, Pillar, Tube Stub, Sanitary
Power/Interlock Connections	Hard wired or connectors with FEP conduit
Control System	AIS or user provided. Integrated, stand-alone, or Multi-Stage
Enclosure Material	FM4910 (CPVC, PTFE, CP7D, others)
Compliance	SEMI, CE, UL
Warranty	12 months

Applied Integrated Systems reserves the right to change specifications without notice.

Flow Path Technology



Safety Features

- Heating module over-temp protection
- Enclosure environment over-temp protection
- Over-current and over-load protection (AIS controller)
- Fire retardant enclosure
- Grounded heater module
- SEMI, CE, UL compliance

Options

- Control System:
 - PID or Multi-Stage based
 - Communication protocol (Ethernet, RS-232, RS-485, others)
 - Host communication signals
- Chemical inlet/outlet location
- Physical shape and mounting location
- Enclosure Material
- Electrical connection style and location
- Multi-Stage capability
- Extended warranty
- Additional options upon request

For more information, contact AIS at: sales@appliedintegratedsystems.com



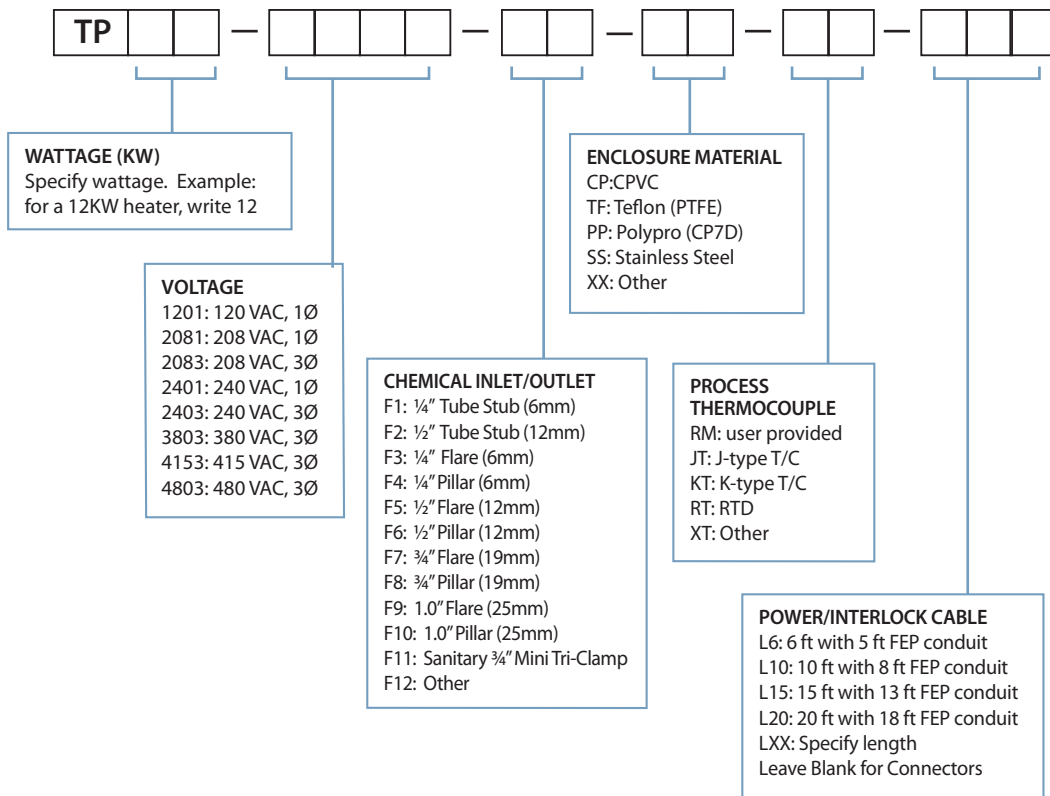
THERMA-PURE™

ORDERING INFORMATION

Please don't hesitate to contact us to help you determine the best product for your application. You may compose the part number of your *Therma-Pure*™ heater by using the guideline below or simply call one of our product specialists for assistance.

You may also e-mail us at sales@appliedintegratedsystems.com

USE THIS CHART TO COMPOSE THE PART NUMBER



CONTACT US

498 Lindbergh Avenue, Livermore, CA 94551, U.S.A. Tel: (925) 447-0162 Fax: (925) 447-0174

www.appliedintegratedsystems.com



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