



healthcare solutions

Theris™ is Phoenix Controls' family of variable air volume (VAV) and constant volume (CV) airflow control systems designed for healthcare facilities. Using Theris, healthcare facility owners are able to reduce maintenance costs, reduce the spread of airborne pathogens and conserve more energy.

Phoenix Controls
Corporation



Phoenix Controls Corporation The Leader in Precision Airflow

Your business demands precision airflow control for critical spaces. It is a matter of safety, pure and simple. Safety for world-class research laboratories. Safety for collaboration in the world of emerging sciences. Safety for patients and staff in state-of-the-art hospitals. For all critical airflow control needs, Phoenix Controls is simply the best in the business.

For more than twenty years, the name Phoenix Controls has meant peace-of-mind for thousands of corporations across the globe. Our customers know the quality and reliability of the Phoenix Controls venturi valve and control system is second to none. Yes, we know safety is the primary reason our customers choose us. But

today there are even more reasons to design our valves into projects. Our innovative airflow control solutions provide new ways to save energy and reduce the costs of maintaining HVAC systems.

For healthcare organizations, precision airflow control means better infection control, improvements in energy conservation, and reduced maintenance of mechanical systems. Controlling these factors contributes directly to healthcare operating margins, reducing risk and lowering operational costs. In a climate of decreasing government reimbursements and ever greater regulatory oversight, it is essential to make smart choices in facility mechanical design. In all the spaces of a healthcare facility, that choice is Phoenix Controls.

Theris Airflow Control Designed for Healthcare

The Theris family of venturi valves was designed specifically for hospitals and critical care facilities. Directional airflow and room pressurization are critical for isolation rooms, operating rooms, and in-hospital pharmacies. Increasingly, patient rooms, recovery rooms, the emergency department and other spaces in the hospital need directional airflow to control airborne pathogens. The history of guideline revisions published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and American Institute of Architects (AIA) has demonstrated an evolution of airflow requirements that continually increase the need for pressurized spaces.

Theris meets and exceeds today's published guidelines with four airflow control solutions, available as either variable air volume (VAV) or constant volume (CV) systems:

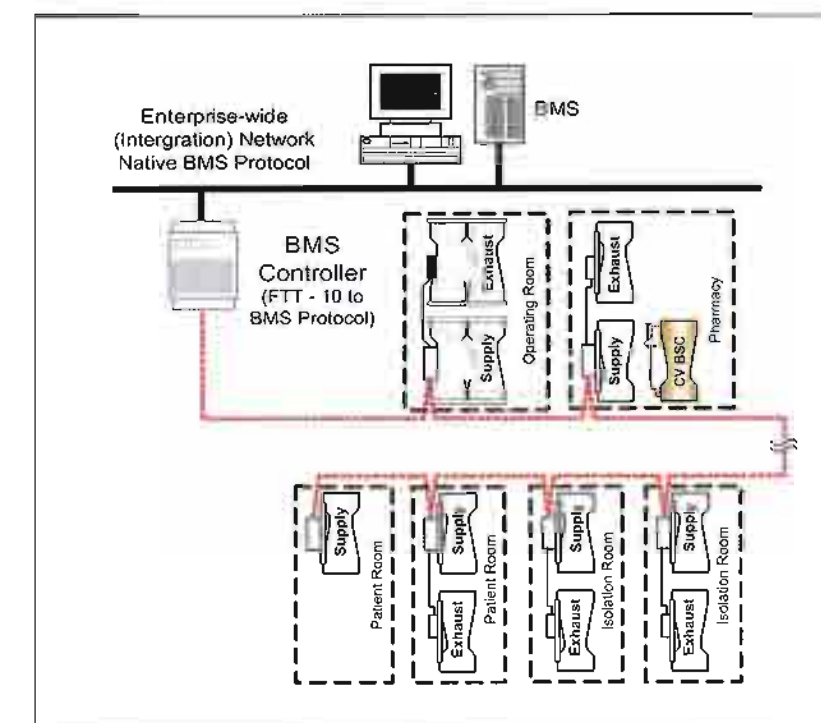
- **Theris-TP**—supply and exhaust VAV tracking pairs with temperature control
- **Theris-TX**—supply and exhaust VAV tracking pairs, with control for temperature, humidity and pressure.
- **Theris-SO**—supply-only VAV airflow with temperature control
- **Theris-CV**—constant volume airflow requiring no maintenance

Theris is ideal for both constant volume and variable air volume applications where stable directional airflow into or out of the space is critical. In VAV flow-tracking applications, the controller maintains an offset between the volume of air supplied into and exhausted from a space to ensure reliable room pressurization and directional airflow.

The Theris family of valves are LonMark-certified products and can communicate with any building management system (BMS) with a LON interface. In an open LON system, interoperability is assured.

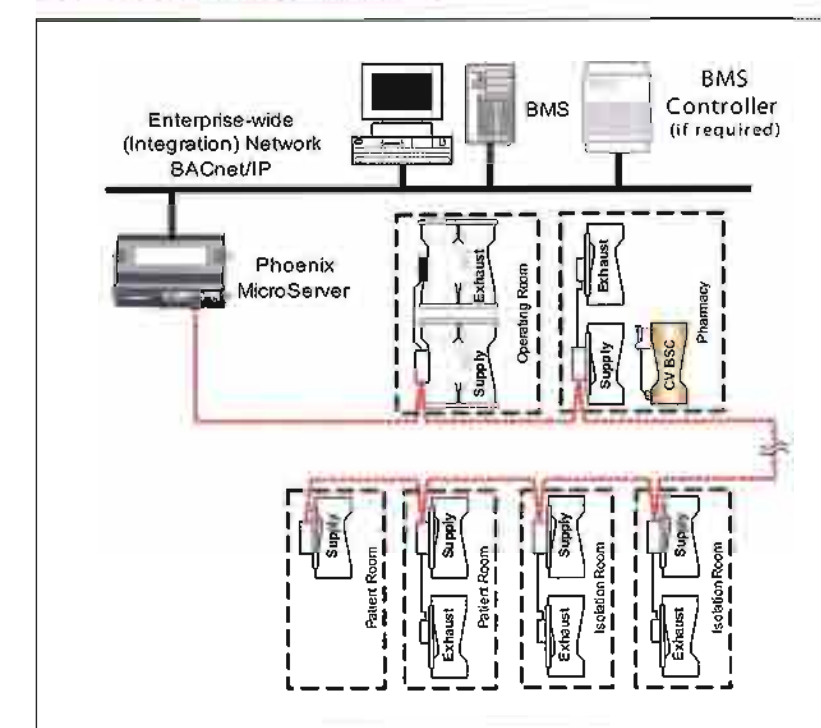


LonMark-certified



Integrate Theris with BACnet networks through Phoenix Controls' MicroServer platform. The MicroServer is a network device that translates LonTalk communications to BACnet for efficient and reliable integration between Theris and a BACnet based BMS.

BACnet Integration

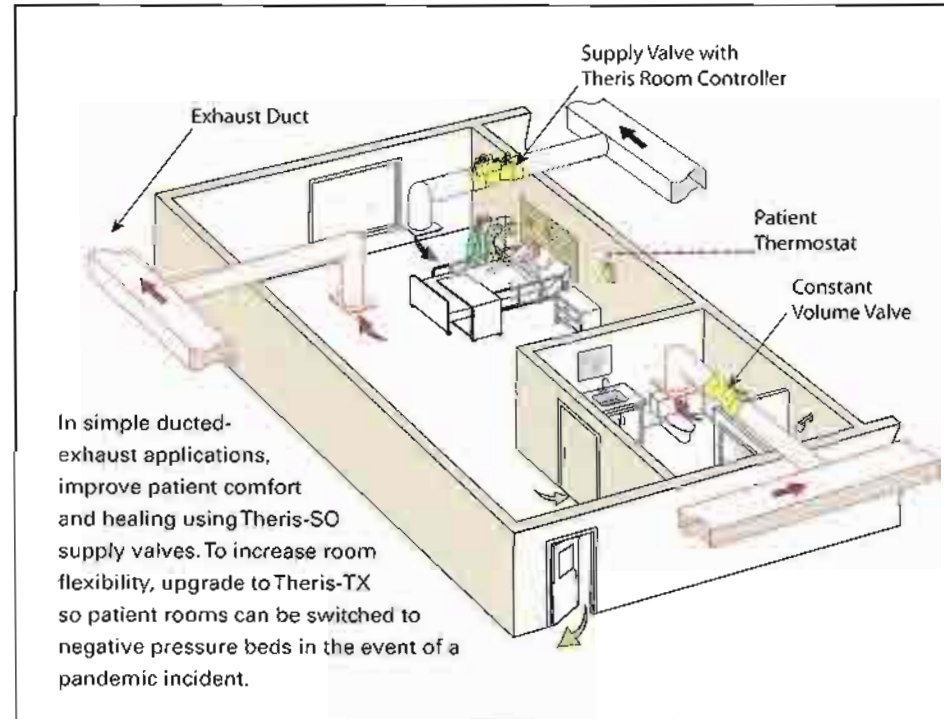


Our Customers

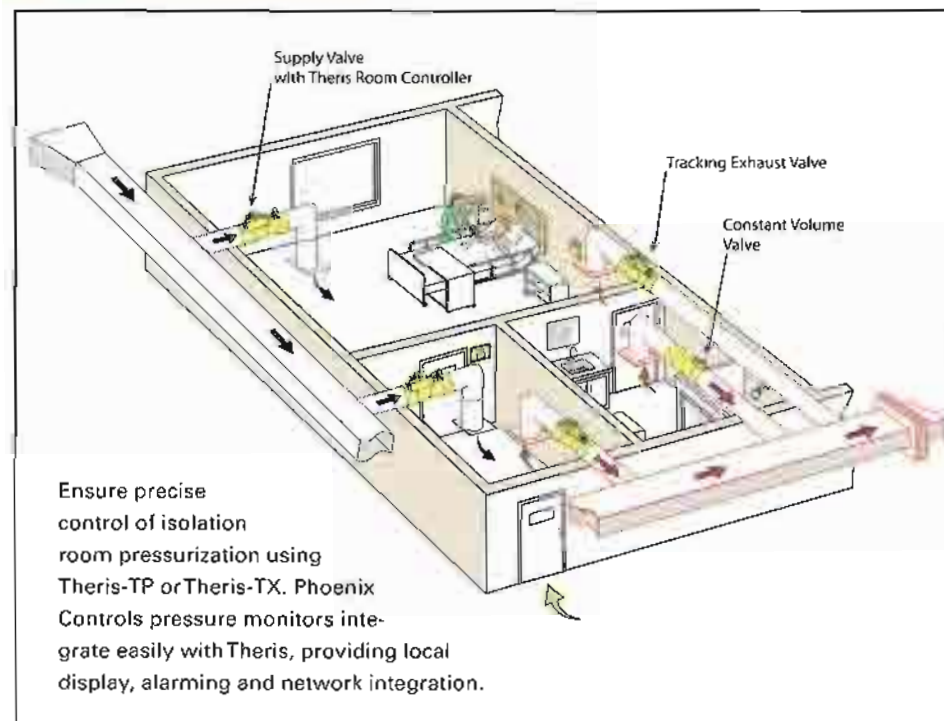
Many of the world's leading healthcare institutions use Phoenix Controls products with confidence.

BETH ISRAEL HOSPITAL
 BRIGHAM & WOMEN'S HOSPITAL
 BRITISH COLUMBIA CHILDREN'S HOSPITAL
 CLEVELAND CLINIC
 FYLKESYKEHUSET I HAUGESUND
Norway
 HADASA HOSPITAL
Israel
 HEMA QUEBEC INC.
 HÔPITAL DE MONTRÉAL POUR ENFANTS
 HÖHENKLINIK CLAVADEL
Switzerland
 INSTITUTE OF CHILD HEALTH
England
 JOSLIN DIABETES CENTER
 M. D. ANDERSON CANCER CENTER
 MOFFITT CANCER CENTER
 NORTHWESTERN MEMORIAL HOSPITAL
 SANATORIUM HOSPITAL
Hong Kong
 SHRINERS HOSPITAL
 SINGAPORE GENERAL HOSPITAL
Singapore
 TAKATSUKI CITY HEALTH CENTER
Japan
 TORONTO GENERAL HOSPITAL
 VANCOUVER HEALTH SCIENCES CENTER
 VETERAN'S ADMINISTRATION HOSPITALS
 UNIVERSITY HOSPITAL CHARITÉ
Germany

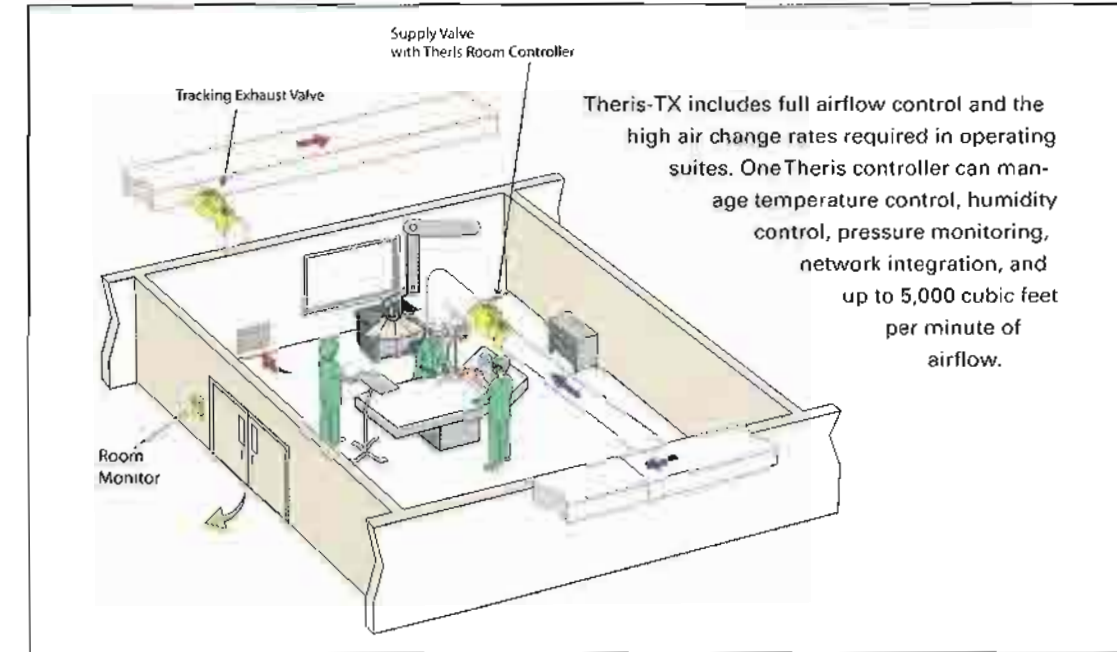
Patient Rooms



Isolation Rooms



Operating Suites



Theris Benefits Healthcare Facilities

Theris, like all airflow control products from Phoenix Controls, has core benefits inherent in the valve design that are important in healthcare facilities:

- **Less Testing, Adjusting and Balancing (TAB) means faster commissioning**—Imagine commissioning a new HVAC system by just turning the fans on. Done. TAB is virtually eliminated with venturi valves.
- **Pressure independent operation**—Design up to 30% shorter duct runs throughout the HVAC system. Theris valves operate accurately even when there are short or angled duct sections. And, precise airflow delivery rate is never compromised when there are changes in static pressure.
- **Integrate easily with LonTalk or BACnet networks**—Theris is LonMark-certified and integrates with BACnet via Phoenix Controls' Microserver or Macroserver products.
- **Shut-off capability**—For rooms that require frequent decontamination, use the Theris-TX shut-off valve option. Eliminate the need for extra dampers and controls to isolate contaminated ductwork.
- **No flow sensors means no maintenance**—All venturi valves are characterized for their full flow range at the factory with a 48-point flow table loaded onto the controller. This means there are no flow sensors to clean, ever.
- **High turndown ratios saves energy**—The design of the venturi valve body and cone assembly means higher turndown ratios than a traditional VAV terminal box; up to 20:1 vs. 3:1. And, saving energy with lower air volume will never compromise room pressurization.
- **Fewer controllers per room**—Theris provides a full electronic platform to control temperature, humidity and monitor pressure, which eliminates the need for additional controllers in the space.*

* There are no controls included with Theris-CV

THERIS TOTAL SOLUTIONS

Add quality ancillary devices like temperature and humidity sensors, Active Pressure Monitors (APM), communicating thermostats, and Local Display Units (LDU). Phoenix Controls and the Theris Family of Valves are your complete solution package for all room level control in a healthcare facility.



Founded in 1985, Phoenix Controls Corporation is a recognized leader in the design and manufacture of precision airflow control systems for use in critical room environments. Our customers include the leading pharmaceutical companies, universities, hospitals, government research facilities and global corporations. We offer innovative airflow control solutions that combine unparalleled safety and performance with value and energy savings.

Phoenix Controls Corporation is a wholly owned subsidiary of Honeywell International, Inc. The Phoenix Controls Corporation Quality Management System is registered to ISO 9001:2000.

For additional information and a listing of our global offices, please visit our Web site at www.phoenixcontrols.com or call (800) 340-0007

Our Core Values

Of the values we collectively hold, we identify the following as *core* and use them to guide our behavior and decision making:

Excellence

We take pride in the high standards of quality we demand of ourselves and relentlessly pursue excellence in our work, products and service to customers.

Integrity

We act with honesty, fairness and ethical behavior in everything we do and are accountable by taking ownership of our actions and meeting our commitments.

Creativity

Creativity is the spark of invention and the cornerstone of our organization. Our inspiration comes from an environment that embraces learning, experimentation and innovative thinking.

Honeywell

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