



Low-Temperature Actuation Probes – The Complete Guide



Give us a call to speak with a specialist
1-800-264-7793 | sales@rmimfg.com

Fail-Safe Protection of Cryogenic Systems



The LTAP immediately shuts down a system *BEFORE* a problem reaches the level of catastrophic failure – protecting staff and equipment.



3 Reasons Every Cryogenic System Needs the LTAP:

The LTAP shuts down cryogenic systems in an instant when temperatures get too low, the draw rate too high, or another problem downstream threatens failure. It stops problems before they start.

Protection from abnormally high draw rates

The LTAP protects end users downstream as soon as it senses that draw rates are higher than the system's capacity. Too rapid of a flow rate puts stress on the cryogenic container and its components, leading to pressure fluctuations, excessive vaporization and potential equipment failure. The LTAP responds instantly, preventing damage.

Protection from unusually low ambient temperatures

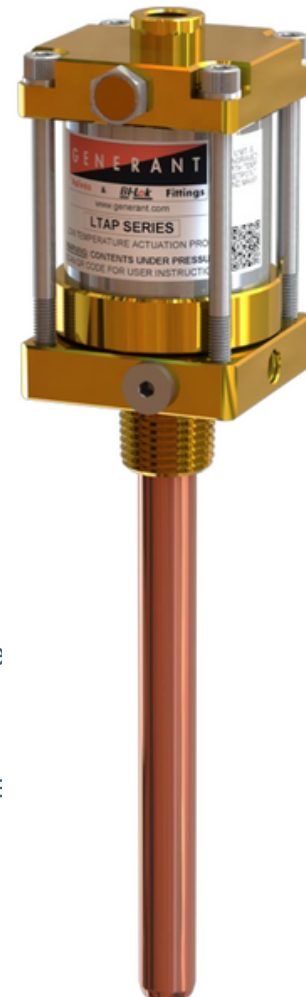
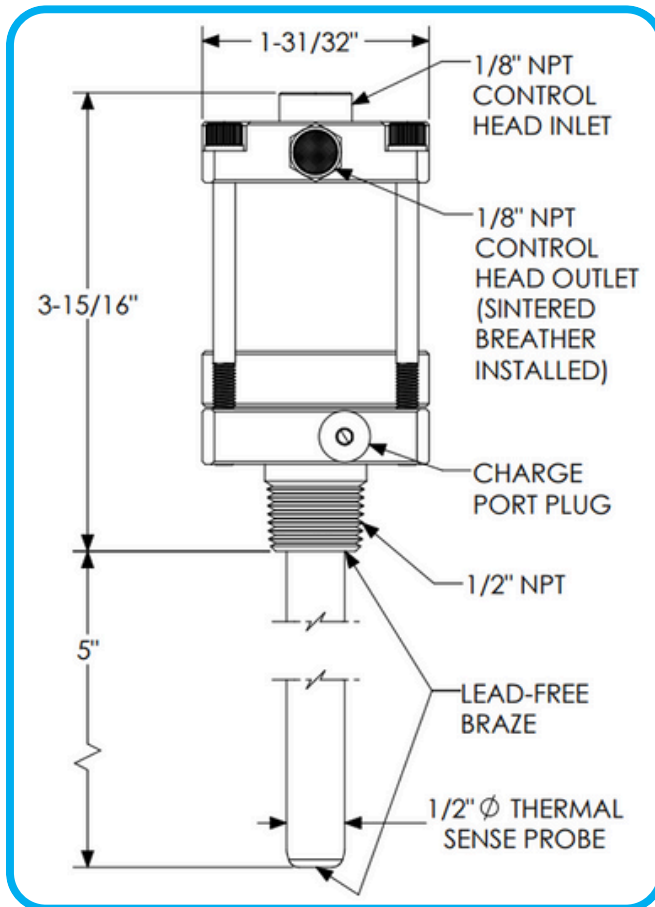
When ambient temperatures get too close to the boiling point of the cryogenic liquid, rapid evaporation causes a dangerous pressure build in the tank. The LTAP responds almost instantaneously when the ambient temperature dips below the set point, shutting down the system and preventing overpressurization from harming personnel and equipment.

Protection from downstream failures

If a pipe breaks or other equipment downstream fails, the LTAP senses the disturbance and stops cryogenic flow. For example, many applications utilize carbon steel piping as a more economical solution in place of costlier stainless steel. But carbon steel can quickly become brittle under extremely cold conditions and break, allowing liquid cryogen to flow unchecked. The LTAP senses the change in flow and responds in seconds.



Fully Mechanical, the LTAP Operates 24/7



- **Accurate:** Set point tolerance of +/-3 degrees Fahrenheit
- **Lightning Fast Open:** Mechanical control head opens quickly at the desired set point
- **Extremely Reliable:** Designed to activate at temperature set point repeatably across a wide range of ambient conditions
- **Immune to Power Outages:** Mechanical design means that the LTAP operates regardless of power status
- **Cleaned for O2 Service:** Assembled cleaned and ready for oxygen service as a standard
- **Solid Brass Design:** Quality built to operate with working pressures up to 600 PSIG

Ratermann is a longtime partner and distributor of Generant products, providing cryogenic customers with reliable solutions for over a decade.



**We can help you with any
cryogenic need - reach out to our
solutions team today!**

Give us a call to speak with a specialist
1-800-264-7793 | sales@rmimfg.com



1-800-264-7793 | sales@rmimfg.com | www.rmimfg.com



Beverage



Medical



Manifolds



Fill Plant



Valves



Regulators



Vaporizers



Hoses



Fittings



Cylinders & Tanks



Gauges



Lubricants




reliably
RATERMANN

Same Day Shipping

Customer Service Hours
7am-8pm EST

[1-800]-264-7793





Cryogenic Equipment



Carts



Safety



Labels

reliably RATERMANN



We stock only the highest quality products from the most reputable manufacturers. If you have any questions or need assistance ordering, please call us at 800-264-7793. Our support staff are among the most knowledgeable in the industry.

reliable people. reliable solutions. reliable delivery.

Beverage

CO2 Valve Conversion Kits and Tools
Beverage & CO2 Equipment and Accessories
Beverage Fittings
CO2 Transfer Hoses
CO2 Pumps
CO2 PTFE Seals
PTFE Tape for CO2
Manifolds
Paintball CO2 Fill Station
Beverage Carbonation Tanks

Manifolds

Semi Automatic Switchover
Automatic Switchover

Carts, Racks & Cradles

Carts, Cylinder Racks and Storage
Cylinder Cradles - 6 or 12 Pack
Truck Distribution Equipment

Cylinders & Tanks

Arctic Fox® Mini Bulk and Micro Bulk Tanks
Cylinders and Tanks
Cylinder Accessories
Lab Dewars and Dewar Specimen Storage Tanks
Taylor-Wharton Liquid Cylinders
Taylor-Wharton Tanks for Cryotherapy
Dewar Parts Illustrations & Reference Guide
Liquid Cylinder Parts and Supplies
Bulk Tank Equipment

Labels, Signs & Tags

Custom Printing - Cylinder Labels, Tags and
Cylinder Collars
Labels - Cylinder Shoulder Labels, Dewar,
Custom
Label Adhesive Remover for Cylinders
Safety Signs and Equipment
Signs, Labels, and Placards

Cryogenic Plant Equipment

Cryogenic Clothing: Cryo Gloves, Aprons,
and Safety Accessories
Fill Plant Equipment - Cryogenic

Lubricants, Oils, Pastes & Grease

Krytox™ Grease, Oil, and Vacuum Pump
Lubricants
Vertrel
Lubricants, Oil, Paste, & Grease (DuPont Krytox™)

Medical Gas

Medical Gas Fill Plant Supplies & Equipment

Fill Plant

Monitors, Meters, and Sensors
Acetylene
Balloon Blowers
Collars - Cylinder ID
Composite Pipe
Fill Plant Supplies
Gas Filling Connectors
Paint & Accessories
Propane Parts Center
Shrink Wrap for Valves
Dust Covers
Netting
Paint

Hoses

Cryogenic Hoses, Cryo Hoses
Vacuum Jacketed Hoses
Bulk Loading Hose - Cryogenic
LNG - Liquid Natural Gas Hoses
Smart Hose
Tube Trailer Hoses
Hoses - High Pressure Hoses, CO2 Hoses
Leak Check, PTFE Tape, Accessories

Fittings: High Pressure, Industrial, Bulk

DK-LOK Tube Fittings
Bulk Fittings
Cryogenic CGA & Adapter Fittings
Bulk LNG Fittings - Liquid Natural Gas Fittings
High Pressure Fittings - 3000 PSI
Stainless Steel Pipe Fittings
Tube Fitting
316 SS Pipe Thread Fittings - 6000 PSI
Inlets and Outlets
Western Fittings

Regulators

High Flow Regulators - Generant
Brass or Chrome Barstock High Purity
Regulators
Stainless Steel Barstock High Purity Regulators
Liquid Cylinder Regulators
Single Stage Regulators
Two Stage Regulators - Neoprene Seat
Two Stage Regulators - Stainless Steel Seat
High Pressure Regulators
Single Stage High Flow Manifold Regulators
Brass Single Stage Pipeline Regulator
High Purity Chrome Plated Brass Single Stage
Pipeline Regulator

Safety Products

Cryogenic Accessories
Lock Out and Tag Out Products

Vaporizers

Ambient Vaporizers, High Pressure Monel
Ambient Vaporizers, High Pressure Stainless
Steel
Ambient Vaporizers, Low Pressure Aluminum
Liquid Cylinder Ambient Vaporizers
Pressure Building Vaporizers

Gauges

Gauges - Pressure and Volume

Valves

Pressure Relief Valves with Bleed Screw
Check Valves
Generant Valves
High Pressure Needle Valves
Cryogenic Regulators and Economizers
Nitrogen Purge
Relief Valves - Low and High Pressure
Sherwood Cylinder Valves
Valves - Acetylene, Propane and Accessories
Cryogenic Valves
Valves - Cylinder High Pressure
Herose Full Product Line
Worcester Distributor: Valves and
Accessories
Industrial Gas Ball Valves

reliably **RATERMANN**

Distribution Locations

Tennessee / Texas / California

Headquarters

275 South K Street - Solutions Center
Livermore, CA 94550

Contact

sales@rmimfg.com

1-800-264-7793

Website

www.rmiororder.com

Blog - Learning Center

www.rmimfg.com

Social Media

Instagram: [@ratermannmfg](https://www.instagram.com/ratermannmfg)

LinkedIn: www.linkedin.com/company/ratermann-manufacturing

YouTube: [youtube.com/@ratermannmfg](https://www.youtube.com/@ratermannmfg)

