

CLASS I, DIVISION 1 INDUSTRIAL ENVIRONMENTS FREEZE PROTECTION

Safe and reliable freeze-protection in CID1 hazardous environments

Application

Hazardous environments that produce potentially explosive conditions can be found in many industries. Class I, Division 1 locations are those in which flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures. This means that ignitable concentrations of flammable gases, vapors, liquids, or even dust can exist under normal operating conditions. Examples of industries with these environments include Oil & Gas Exploration and Refining, Chemical, Mining, Coal Processing, and many more. Flammable gases, vapors, dust, etc. are often byproducts of production processes, and in some cases, can be collected and used as fuel sources or solvents. An example of this is the oil & gas refining process, which can produce ethane, butane, methane, pentane, and propane.

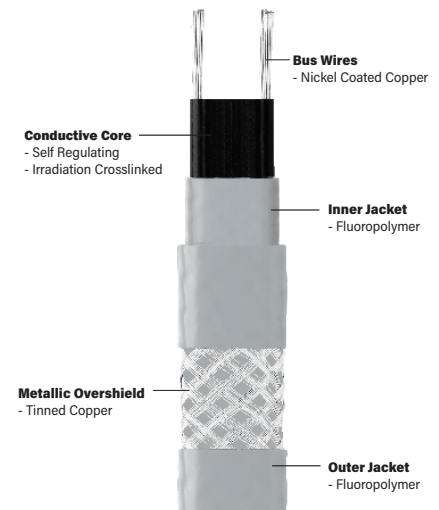
Liquids and gases at these locations are stored in tanks or transported through pipes, and the pipes and tanks often need freeze protection. Because of the high possibility that a spark or high temperature could result in an explosion, products used as protection from the cold must carry Class I, Division 1 approvals from accredited third-party service companies such as Factory Mutual (FM) or Canadian Standards Association (CSA). If these liquids and gases are not properly protected from possible sources of ignition, the risk of a catastrophic event, lengthy downtime, and injury are greatly enhanced.

Solution

BriskHeat's SLCAB self-regulating cable provides safe freeze protection for pipes and vessels and is approved by both FM and CSA for Class I, Division 1 explosive-condition environments. The self-regulating design of this heating cable is specifically designed to regulate heat output for efficient freeze protection needs. The cable simply needs to run along the length of the pipes or get wrapped around vessels to provide the required warmth needed to prevent freezing conditions. The heating cable is easy-to-install and can be spiral wrapped, loosely fit, or even crossed over itself without risk of failure or overheating. Exact installation configurations are determined by required wattage, and accessory kits for power connection, splicing, tees, and end seals are available.

BriskHeat also offers the TB110 Series of Hazardous-Area Temperature controllers. This can be used to set a specific process temperature. It is approved for Class 1, Division I and ATEX hazardous areas.

To complete the system, BriskHeat also offers several insulation options to improve thermal efficiency. BriskHeat's Silver Series 2 Cloth Insulators are a configurable system of insulators that feature a durable high-temperature polymer coated cloth, fiberglass insulation, and hook & loop closure. The hook & loop closure provides easy installation and easy removal for quick access for routine/preventative maintenance. BriskHeat's Insul-lock® and Insul-EZ insulators are preformed elastomeric foam systems that can be installed on most pipe and vessel systems.



Types of Users

Drilling Managers	Automation Foremen
Fracking Technicians	Automation Technicians

Industries

Chemical Processing/Extractions	Manufacturing
Energy/Power Generation	Gas & Oil
Heavy Industry/Mining	Water/Wastewater