

**FEATURE:**  
**Protection Techniques for  
 Hazardous (Classified) Locations**



**CHECK OUT OUR NEW LOOK!**

[Brochure](#)  
[Website](#)  
[Resource Library](#)

Dear David,

IPC Protects - and that is exactly what we have been doing for over twelve years. When I started Industrial Products Corporation in 1996, I did not want to be just another Rep firm or process instrumentation distributor. I wanted a company that brought out all of my strengths in teaching and training, as well as provide a real service to Industry - one that would expand on my experience and help others. That is why IPC has been focused on Electrical Safety in Hazardous Locations since the beginning. We are a resource for knowledge, education, and training, as well as a source for the products to protect plant, property and personnel.

This newsletter is designed as a tool to keep our very valued customers informed of the latest technologies and training in our areas of expertise. Protecting Industrial infrastructure has expanded beyond just hazardous locations and includes all connections between the control system and the field instruments. We will highlight a specific product or technology in each issue and invite you to learn. As always, we welcome your feedback. Feel free to call or write anytime. My staff and I are ready.

Kindest regards,

David P. Lambert

**Hazardous (Classified) Locations:** Areas are classified according to the likelihood that a fire or explosion could occur due to the presence of Flammable Concentrations of gases or vapors, dusts, fibers or flyings and the potential presence of an electrical or thermal ignition source.

Everyone faced with electrical installations in Hazardous (Classified) Locations has the challenge of determining the best protection options for their applications. These decisions include such issues as systems safety and reliability, product availability, personnel training, installation operation and maintenance costs, while meeting all applicable codes, standards and practices. One needs to be thoroughly familiar with all protection techniques - their advantages, disadvantages, and proper application - in order to make sound decisions.

Three main techniques of protection in hazardous (classified) locations:

[Purge/Pressurization](#), [Explosionproof](#), [Intrinsic Safety](#).

**Purged and Pressurized Systems:** Systems for use in Class I, Division 1&2 areas are either X, Y, or Z purged systems. Positive pressure inside the enclosure mounted in the hazardous area keeps the surrounding hazardous atmosphere out, allowing use of apparatus normally not allowed in such an area to be used.

- Can protect large volumes, panels & even entire control rooms.
- May have an acceptable margin of error before danger can result.
- Systems and expertise are readily available.
- General purpose and high-voltage equipment can be used in an area where it normally could not be (X & Z-Purge Systems)

**Explosionproof:** Permits gas-air mixture access to the inside of the enclosure but prevents propagation of any explosion to the outside. The explosion is contained and the expended gases exit, but are cooled by the mechanical design of the enclosure.

- Allows sparking apparatus in a hazardous area.
- Time tested, widely accepted.
- Abundant knowledge on the technique is available.

**Intrinsic Safety Circuit:** A circuit in which any spark or thermal effect is incapable of causing ignition of a mixture of flammable or combustible material in air under prescribed conditions. (NEC 504-2)  
 Intrinsic Safety is growing in acceptance and usage throughout the U.S. Factors contributing to this are: inherent safety, greater product availability, increased understanding, and cost advantage.

- Safest technique
- Live maintenance
- Fault tolerant
- Allows use of general purpose/simple apparatus
- No conduit required
- Safe for personnel
- Least expensive
- Fool-proof method
- Loop isolation
- Global acceptance

**CONTACT IPC FOR [TRAINING](#) AT YOUR FACILITY**

Take a look at this [Flammable Facts](#) wall chart.  
[Contact us](#) if you would like a **FREE**  
**Flammable Facts** wall chart mailed to you.

**IPC'S OFFERINGS:**

- Alarm Solutions
- Control Stations
- DCS / PAC Controllers
- Digital Displays / Controllers
- Explosionproof Enclosures
- Gas Detection
- Industrial Keyboards
- Industrial Networks:
- Fieldbus / Ethernet / HART
- Industrial Network Security
- Industrial PC Workstations
- Industrial Wireless Instrumentation
- Intrinsic Safety
- Lightning / Surge Protection
- NEMA Electrical Enclosures
- Power Quality Monitoring
- Precision Pressure Sensors
- Process I/O
- Purge / Pressurization Systems
- RTU's / Dataloggers
- Temperature Sensing

**TRAINING SEMINARS:**

- Hazardous Location Installations
- Surge Protection
- Gas Detection
- Fieldbus
- Industrial Wireless
- Industrial Network Security

For more info, please visit our website:

[Home](#)  
[Product Listing](#)  
[Seminars & Training](#)  
[Resource Library](#)  
[Contact Us](#)

Join Our Mailing List!