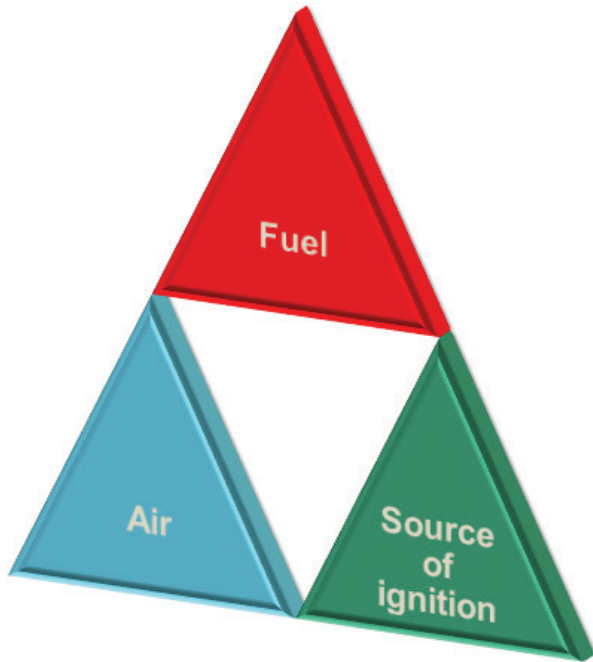


What Is Intrinsic Safety?

Intrinsic safety is a design technique applied to electrical equipment and wiring for hazardous locations. The technique is based on limiting energy, electrical, and thermal, to a level below that required to ignite a specific hazardous atmospheric mixture.



How Is Intrinsic Safety Defined?

Intrinsically safe equipment and wiring shall not be capable of releasing sufficient electrical or thermal energy under normal or abnormal conditions to cause ignition of a flammable or combustible atmospheric mixture in its most easily ignitable concentration.

National Electrical Code Article 504-2 Definition of an Intrinsically Safe Circuit © 1996

A circuit in which any spark or thermal effect is incapable of causing ignition of a flammable or combustible material in air under prescribed test conditions.

Multiple Instrument Approvals: Is There A Difference?

Anyone familiar with the latest Industrial Scientific Corporation instruments can easily note the multiple certification agency labels placed on enclosures.

The Same Intrinsic Safety Principles Are Applied

When making a comparison keep in mind the principles of intrinsic safety are the same for all approval agencies.

AGENCY	INST. TYPE	INTRINSIC SAFETY	PERFORMANCE
Mine Safety and Health Admin.	Toxic	Yes	No
	Methanometer	Yes	Yes
Underwriters Laboratories Inc.	Toxic	Yes	No
	Combustible	Yes	No
Canadian Standards Association	Toxic	Yes	No
	Combustible	Yes	Yes
Factory Mutual Research Corp.	Toxic	Yes	Yes
	Combustible	Yes	Yes
ATEX (Europe)	Toxic	Yes	Yes/No
	Combustible	Yes	Yes/No