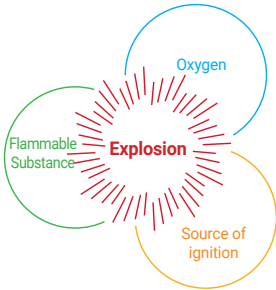


## Technical Data for Explosion Proof Products



### • 3 elements of explosion

Flammable substance, ignition source, and oxygen are the 3 elements of an explosion. The explosion will occur when the three components are met. If one of the three components does not exist the explosion will not occur.

### • What is explosion proof?

Preventing the combination of the 3 elements of explosion.

### • Explosion proof product

Typically, products will include electrical parts that can be an explosion ignition source. However, explosion proof products are designed to prevent spark/ ignition.

## Explosion Proof Structure Classifications

The data indicated below are some of the classification specifications by structure type of the explosion proof products. Furthermore, there are mold explosion proof structure, charging explosion proof structure and special explosion proof structure.

The explosion proof classification structure is separated depending on product application areas.



### Flame Proof \_ Ex d/Zone1, 2

All electrical circuits are enclosed in a house strong enough to contain any explosion or fire that may take place on the inside.



### Purged/ Pressurized \_ Ex p/Zone1, 2

Type of protection in which the protective inert gas inside the enclosure is maintained at a higher pressure than that of the surrounding atmosphere.



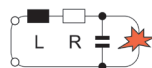
### Increased Safety \_ Ex e/Zone1, 2

Electrical circuits incorporates special measures to reduce the probability of excessive temperatures and the occurrence of arcs and sparks in normal service.



### Non-Sparking \_ Ex n/Zone2

Method of protection for electrical equipment designed so that it will not ignite the surrounding explosive atmosphere in normal operation and under certain fault conditions specified in the standard



### Intrinsic Safety \_ Ex i/Zone 0, 1, 2

The electrical energy available in circuits and equipment, is limited to a level to low to ignite the most easily ignitable mixtures in a hazardous area.



### Dust Explosion Proof \_ Ex td/Zone 21, 22

The apparatus is enclosed in a manner that will exclude ignitable amounts of dusts and will not permit arcs, sparks or heat generated or liberated inside the enclosures to cause ignition of exterior dust accumulations on the enclosure or of atmospheric dust suspensions in the vicinity of the enclosure.