

ATEX ZONES

Explosive atmospheres in the workplace can be caused by flammable gases or by combustible dusts.

Explosions can cause loss of life as well as significant damage.



GAS
explosive atmosphere



DUST
explosive atmosphere

RISK TYPES



Three elements are required to cause an explosion: Fuel (gas or dust), Oxygen and an ignition source such as electric sparks or a short-circuit.

The risk of an explosion is based on the probability of a fuel and oxygen mixture occurring over time.

CAUSES OF EXPLOSIONS

INDUSTRIAL ATEX ZONES



Chemical



Pharmaceutical



Manufacturing



Oil & Gas

GAS ATEX ZONES

0
ZONE

There's a permanent or frequent presence of an explosive atmosphere.

1
ZONE

An explosive atmosphere is expected to occur occasionally during normal operation.

2
ZONE

Explosive atmospheres are only of short duration or are unlikely to occur during normal operation.

DUST ATEX ZONES

20
ZONE

An explosive mixture of dust is continuously present or present for long periods.

21
ZONE

An explosive mixture of dust is likely to occur in normal operation.

22
ZONE

An explosive mixture of dust is unlikely to occur in normal operation and if it does it will only be for a short period.

Exi - Intrinsic Safety - Barriers & Sensors

Exe - Increased Safety - Terminal Boxes/Control Stations

Exd - Flameproof - Control Panels/Terminal Boxes

Exp - Purge and Pressurisation - Control Panels

PROTECTION FOR ELECTRICAL EQUIPMENT



**KEMPSTON
CONTROLS**

For more information and support on ATEX Zones and the precautions you can take to protect yourself, Kempston Controls are the people to speak to. For more information call us on 01933 411 411.