

GAS DETECTION IN TECHNOLOGICAL PROCESSES OF BREWERIES



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The following detection systems should be installed in the technological processes of breweries:



- Carbon dioxide CO₂ detection
- Ammonia NH₃ detection
- Chlorine Cl₂ detection
- Methane CH₄ detection

Gas detection should be installed and mounted in accordance with the existing gas detection standards in breweries and occupational safety standards of workers.

Carbon dioxide CO₂ detection

Carbon dioxide is known as a poisonous gas. It is heavier than natural air, and it occurs in the process of brewing and filling of beer. In indoor facilities, it should be controlled at every workplace and plant. The measurement is carried out in % vol. The permissible concentration at the workplace is 0.5% vol. in a time period of 8 hours.

Ammonia NH₃ detection

Ammonia is known as a toxic and explosive gas. It is lighter than natural air, and it occurs in cooling systems. In indoor facilities, it should be controlled at every workplace and plant. The measurement is carried out in ppm. The permissible concentration at the workplace is 20ppm in a time period of 8 hours.

Chlorine detection Cl₂

Chlorine is known as a toxic gas, and it is heavier than natural air. It occurs in packaging disinfection systems. In indoor facilities, it should be controlled at every workplace and plant. The measurement is carried out in ppm. The permissible concentration at the workplace is 0.5ppm in a time period of 8 hours.

Methane detection CH₄

Methane -natural gas known as an explosive gas, lighter than natural air. It occurs in the heating system errors. In indoor facilities, it should be controlled at every plant. The measurement is carried out in % DGE.

The Gas Detection System



- **The Alarm Switchboard**

With a display to keep track of current and historical values with analogue and digital inputs, relay and voltage outputs, and 48h battery backup with auto-test



- **Detectors**

Different gas detectors (for example CO₂, NH₃, Cl₂, CH₄) in the IP or Ex protection



- **Light and Sound Signal**

To signal the following sensor status:
error, alarm level 1, and alarm level 2



References

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