



Industrial Alcohol Tanks Fire Detection in France



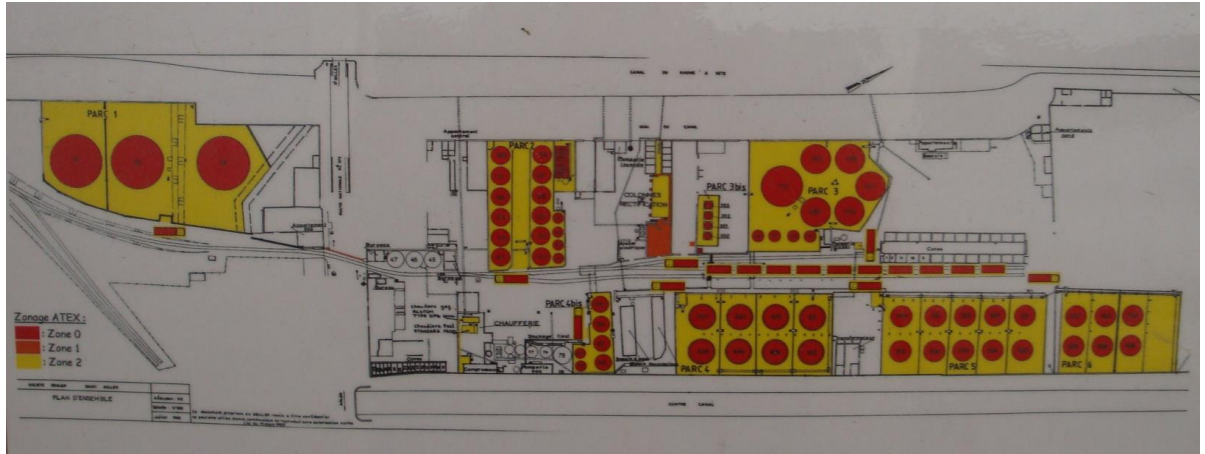
- Highly flammable substances, such as Industrial Alcohol, require ATEX approved fire detection solutions.
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- Active electronics, if not protected by specialized enclosures, are banned from ATEX Zone 0 areas in order to prevent the ignition of flammable vapors. The solution? Fiber Optic Linear Heat Detection that has very low power designs and passive sensor cables.

AP Sensing's N4387A Linear Heat Series employs an extremely low power design. It meets the class 1M certification, with an average laser power of just 17mW. The instrument is available with an ATEX Zone 0 certification. This rating allows the system to be deployed with a steel armored sensor cable.

The DTS instrument is generally located in a central control room outside the dangerous ATEX zone. Steel armored sensor cables are deployed over the storage tank area in a loop configuration, providing operational redundancy in the system.



ATEX Zone Overview



Steel Sensor Cable

The steel armored sensor cable has a compact design ($d=3.8\text{mm}$ / 25kg/km) ensuring fast, effective heat detection. The cable is extremely robust, designed for harsh, corrosive environments.

- Tensile Strength: 1.100 N
(continuous / 1.500 N short term)
- Crush Resistance: 960 N/cm
- Temperature Range: -40°C to $+85^{\circ}\text{C}$
(short-term 150°C)
- Functional Integrity: 2h at 750°C
(according to IEC 60331-25)

