SENSEWARE
THE FLAME DETECTOR COMPANY

Project description flame detection, Explanation

Project name:	Name of the company and the site
Date:	The person who fills in this project description
Author:	
Object description:	For example: tank storage, silo, recycling

Fire properties

Class of risk:	Class of risk: For example: safe area, zone 2 (cat. 3), zone 1 (cat 2) etc.
Aggregation of the combustible:	For example: liquids, gases and solids.
Type of combustible:	For example: hydrocarbon or non-hydrocarbon
Type of fire:	For example leakage fire, spill fire, smoldering fire
Source of risk:	For example: disturbance of the process, accident with a vehicle.
Ignition source:	For example: spark, self ignition, activities like welding, hot exhausts or brake shoes.
Consequential losses:	For example: production losses, shut down approx. 8 weeks.

Situation

Location:	For example: outdoor, indoor, lean to.
Object shape:	For example: silo, vessel, pipeline, duct, atrium.
Limitation in the field of view:	For example: drain, lean to, vehicles
False alarm sources:	For example: chopped heat sources, corona, welding, flares.
Inhibitors:	For example: water, snow, ice, dust, fat, (chopped) heat sources, (direct) sunlight, vehicles, shadow effects.

Performance

Fire size to be detected:	For example: 10 kW, 25 kW or 100 kW n-heptane.
Response time:	For example: alarm within 30 seconds and follow up within 180 seconds.
Follow up:	For example: alarm, shut down, evacuation.
Projection:	For example: room-protection, single, complementary, voting.
Position:	For example: mounting height, angle of vision limitation.

Detector choice

Suitability:	For example: suitable for non-hydrocarbon fires.
Protection type/class;	For example: IP54, ATEX 95 category 2.
Strengths and weaknesses:	For example: 4.4 µm IR is desirable in this application, because of the possible occurrence of oil mist, despite the possible occurrence of water and ice.
Compensation conditions:	For example: 70% in clean free air conditions.
Compensation factory settings:	For example: 75% of the total sensitivity.
Compensation cone of vision:	For example: 50% for spatial detection.
Auxiliaries:	For example: adjustable mounting bracket, self test.

Test fire

Execution of test fires has many disadvantages. It is impossible to simulate laboratory conditions in a project on a site. A test fire is purely indicative and gives the observer an impression of a number of aspects of flame detection. How does a 25 kW n-heptane fire look? During execution of the test fire, possibly many fumes and dust will released, which will influence the subsequent tests. Also temperature, wind velocity and humidity have a significant influence on the test. Please take care of the personal safety.