

ENGINEER SAFETY IN FROM THE START

Flame & Gas Detection Solutions for Safer Plant Design

Engage Emerson early during FEED to develop an optimized flame and gas detection strategy. Through F&G Mapping and application expertise, we help EPCs identify the right detection technologies, optimize detector placement and achieve effective hazard coverage. By designing the right system from the outset, EPCs can reduce unnecessary equipment, lower installed costs and simplify long-term maintenance without compromising safety.

DESIGN FOR THE HAZARD, NOT THE DEVICE

Different hazards and process environments require different detection approaches. By combining complementary detection technologies with F&G Mapping, Emerson helps EPCs develop effective protection strategies tailored to the application, from conventional hydrocarbons to emerging hydrogen, ammonia and carbon capture projects.

#1 Assess the hazards

Identify potential gas releases, flame events and environmental challenges.

#2 Select the right technologies

Choose complementary detection principles based on the identified hazards.

#3 Map and optimize coverage

Work with Emerson on F&G Mapping to optimize detector placement, quantities and coverage.

#4 Design for lifecycle efficiency

Consider installation complexity, testing and long-term maintenance from the beginning.

OPTIMIZE COVERAGE. REDUCE PROJECT CAPEX

25%+ FEWER FLAME DETECTORS PER ZONE

With a detection range of up to 90m, the Rosemount 975, combined with optimized F&G Mapping, can help EPCs reduce flame detector quantities by 25% or more per zone while maintaining the required detection coverage. Fewer detectors also mean fewer I/O points, less cabling, fewer junction boxes and reduced installation complexity, delivering significant CAPEX savings.

EMERSON™

FLAME & GAS DETECTION SOLUTIONS FOR SAFER PLANT DESIGN

BUILD THE RIGHT LAYERS OF DETECTION

No single detection technology addresses every application. Emerson provides complementary technologies for different hazards and plant environments.



DETECT FLAME EVENTS
Rosemount™ 975 Flame Detector

Designed to detect real flame events while providing improved immunity against common sources of false alarms.

- QuadSense™ technology for improved false-alarm immunity
- Detection range up to 90 m
- Fast response to real flame events
- Built-in test functionality



DETECT COMBUSTIBLE GAS
Rosemount™ 625IR Fixed Gas Detector

Fixed-point combustible gas detection designed to support dependable detection while simplifying routine maintenance.

- Calibrated for life
- Gas-free function testing available
- Response time under 2 seconds with splashguard fitted
- Heated optics
- Tri-colour status indicator



DETECT PRESSURISED GAS LEAKS
Incus Ultrasonic Gas Leak Detector

For applications where wind, ventilation or open environments can make conventional gas-cloud detection more challenging.

- Detects ultrasonic sound from pressurised gas leaks
- Suitable for windy, ventilated, and open areas
- Four piezoelectric sensors for redundancy



EXTEND GAS DETECTION COVERAGE
Rosemount™ 935/936 Open Path Gas Detectors

Line-of-sight detection designed to help extend gas monitoring across larger areas.

- Line-of-sight gas detection
- Wide-area and perimeter coverage
- Helps reduce detection gaps in open process areas

FROM PROJECT DESIGN TO SAFER OPERATION

Engaging Emerson early during FEED helps EPCs design effective, cost-efficient flame and gas detection systems. Through F&G Mapping and application expertise, we help select the right technologies and optimize detector placement to achieve the required hazard coverage. Combining long-range detection, complementary technologies and low-maintenance solutions helps reduce project CAPEX, minimize lifecycle OPEX and deliver reliable protection throughout plant operation.

Engage Emerson during FEED to optimize your F&G design, coverage and lifecycle costs.

For more information, visit **Emerson.com**

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