

Fire and Gas Detection for the Petrochemical Industry

Honeywell



**Improve Safety, Reliability, Productivity
and Yield through a Standalone or Networked
Fire and Gas Monitoring System**

The Widest Range of Fire and Gas Monitoring Solutions to Meet Any Challenge, Large or Small



In the petrochemical industry, fire events and flammable and toxic gas leaks are a problem that can undermine safety and business continuity. To find and fix these events quickly, you need a trusted source of protection on your side: Honeywell Analytics.

As manufacturer of the industry's most complete range of fire and gas monitoring instrumentation, Honeywell Analytics offers a cost-effective, reliable solution for detecting all toxic or flammable gases and flame or fire events at your site.

Through Honeywell Analytics your company can increase its productive yield, maintain fixed operating costs and improve equipment reliability.

Put Honeywell Analytics to work for you now.

Honeywell Analytics fire and gas detection solutions do more than ensure personal safety. We protect process equipment and other plant assets from contamination, corrosion and other harmful effects.

Toxic/Flammable Gas Detection with Display



XNX™ Universal Transmitter

- Works with Honeywell's full range of gas sensor technologies (Electrochemical, Infrared, Catalytic Bead)
- Expanded communications platform with standard HART® plus optional MODBUS, FOUNDATION® H1, FIELDBUS or three relays (two alarm, one fault)
- Single interface provides complete diagnostic, alarm and gas concentration values
- Supports eight languages
- Easy to install, operate and maintain
- Failsafe operation, fast response and long operating life
- Globally certified for hazardous areas
- UL, CSA (cUL), ATEX, INMETRO certifications
- EDDL software from Honeywell Analytics makes it easy to manage gas detection data right from your PC
- Real-time advanced diagnostics provide quick, easy visibility to devices in the field

Sensepoint XCD

- User friendly and intuitive tri-color backlit display with digits, bar graph and icons
- Fully configurable via magnetic switches
- Optional remote sensor mounting
- Selectable sink or source 4-20mA output
- Auto-inhibit during maintenance
- MODBUS multi drop option offers cabling savings, remote diagnostics/configuration
- Common transmitter platform
- Minimal training required
- Reduced spares
- Non-intrusive, one-man operation
- Plug-in sensor replacement
- Sensepoint combustible, toxic and Oxygen sensors offer a wide variety of gases and measuring ranges.

Series 3000 MkII

- 2 wire 4-20mA output
- Surecell™ electrochemical sensors for hot & humid environments
- Explosion proof transmitter
- Reduced routine maintenance costs
- Long life sensing elements
- Permits 'hot swap' of replacement sensors reducing down time
- Onboard fault diagnostic software & display
- Patented Reflex sensing element verification diagnostics
- Easy menu / icon driven calibration
- UL, CSA (cUL), ATEX certifications

Flame Detection



Fire Sentry Flame Detectors

- Three versions of flame detectors (UV, UV/IR and Tripe IR) are designed to alarm to all fire types, hydrocarbon and non-hydrocarbon, which is made possible by its patented WideBand Infrared technology
- All Fire Sentry FSX detectors utilize photoconductive quantum solid-state sensors, where all other Triple IR flame detectors use either pyroelectric or thermopile thermal effect sensors
- Detects hydrocarbon and non-hydrocarbon fuel fires in all environmental conditions
- PC software and Interface Module (FSIM) for fault diagnostics real-time graphs (RTGs), and downloading of FirePics™ and event log
- Optimal false alarm rejection for all environmental conditions
- Minimal maintenance for trouble-free operation
- Suitable for a wide variety of applications

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Hazardous Gases by Industry

INDUSTRY	PROCESS CHEMICALS & FEEDSTOCKS USED
Plastics, Fibers	Aromatics: Benzene, Toluene, Xylenes, Styrene Inorganic Chemicals: Ammonia, Nitrogen, Chlorine, Sulfuric Acid, Sodium Hydroxide Alcohols: Methanol, Ethanol Olefins: Ethylene, Propylene, Polyolefins, Polymers
Pharmaceutical	Aromatics: Benzene, Toluene, Xylenes, Styrene
Paint, Solvents, Inks, Coatings, Adhesives	Inorganic Chemicals: Ammonia, Nitrogen, Chlorine, Sulfuric Acid, Sodium Hydroxide Alcohols: Methanol, Ethanol Aromatics: Benzene, Toluene, Xylenes, Styrene
Agricultural	Inorganic Chemicals: Ammonia, Nitrogen, Chlorine, Sulfuric Acid, Sodium Hydroxide
Industrial Gases, Specialty Gases	Inorganic Chemicals: Ammonia, Nitrogen, Chlorine, Sulfuric Acid, Sodium Hydroxide

Leak Sources/Solutions Chart

APPLICATION	LEAK SOURCE	HONEYWELL ANALYTICS SOLUTION
Distillation Columns	Pipelines, reactors, valves	Toxics: XNX, XCD, S3000 Flammables: Optima, Excel Flame: UV, UV/IR, Triple IR
Tank Farms	Tanks, pipelines, valves	Toxics: XNX, XCD, S3000 Flammables: Optima, Excel Flame: UV, UV/IR, Triple IR
Loading Stations	Loading platforms, filling stations	Toxics: XNX, XCD, S3000 Flammables: Optima, Excel Flame: UV, UV/IR, Triple IR
Processing Plants	Tanks, pipelines, mixing and batching equipment, valves, compressors	Toxics: XNX, XCD, S3000 Flammables: Optima, Excel Flame: UV, UV/IR, Triple IR
Specialty Chemical Batch	Processing, mixing, drying drainage, tanks, pipelines	Toxics: XNX, XCD, S3000, CM4 and SPM for low-level detection of hydrogen fluoride, hydrogen sulfide, phosgene and isocyanates Flammables: Optima, Excel Flame: UV, UV/IR, Triple IR

Infrared (Combustible) Solutions



Searchline Excel

- Open path IR detector provides fast speed of response, early warning
- High sensitivity allows low alarm set points
- Alignment free design makes installation simple
- Duct flex and vibration tolerance keeps the system online
- Integral functional gas test facility allows for simple system check
- Contamination resistant optics reduce the need for unscheduled maintenance
- Not affected by interference from water vapor
- Immune to catalytic poisons
- Works in inert atmospheres
- Heated optics
- True alignment system
- Gassing cell
- Hand-held interrogator

Searchpoint Optima Plus

- Point IR detector provides fast, accurate response to 100% LEL Methane, Ethane, Propane, Butane, Ethylene/Ethane
- Dual channel, fully compensated infrared optical configuration
- Heated stand offs and optics
- Failsafe operation
- Immune to catalytic poisons
- False alarm rejection with $\sqrt{2}$ Software™
- Works in inert atmospheres
- Advanced integral fault diagnostics
- Optional Modbus RS485 multidrop output
- Calibrates for over 100+ gases & vapors

Chemcassette® (Toxic) Instrumentation



CM4

- Continuous Monitoring on 4 Points with flexible installations — table, rack or wall mount
- Chemcassette® technology provides physical evidence of leak
- Analog and serial outputs permit easy installation into virtually all annunciation and shutdown systems
- 300 in. (90m) tubing/sampling distance enables convenient positioning of unit with minimal intrusion into process areas
- LonWorks® Interface (optional) permits peer to peer communication and low cost of installation
- Serial printer option permits archiving of all important events and system configurations
- Integral audio and visual alarms easily identify all events

SPM

- Single Point Monitor offers lightweight (40 lbs.), mobile/transportable ease
- Chemcassette® technology provides physical evidence of a gas leak
- Toxic gas sensitivity up to ppb levels
- Minimum maintenance with no calibration required
- NEMA 4X enclosure customizable for indoor/outdoor environments
- More than 50 gas types available
- AC or optional DC operation
- Built-in sample pump, alarm and digital/analog outputs