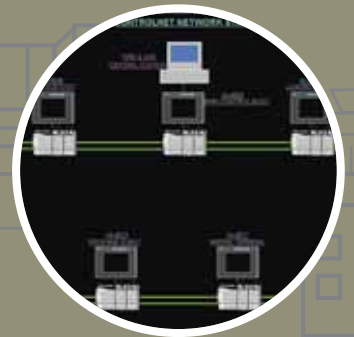
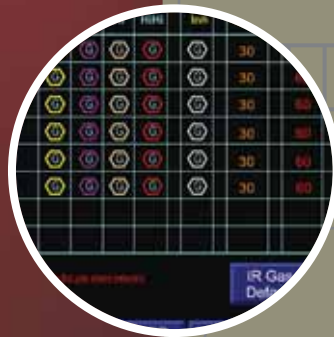


MODEL 10K™ FM-Approved Fire & Gas Detection System



State of the Art Fire and Gas Protection

Intelligent, Modular and Flexible

The MODEL 10K Fire and Gas Detection System from MSA represents the next generation in highly intelligent monitoring solutions designed to help customers reduce hazard vulnerability and meet the world's most demanding safety standards.

The MODEL 10K is an innovative, modular system that is highly scalable and delivers the following features and benefits:

- FM-Approved:
 - to NFPA 72 Compliance as a system
 - proprietary central station monitoring
 - as both fire alarm panel & gas controller
 - fault tolerant digital communications
 - releasing control panel
- Remote I/O capability
- Optional fiber optic communications
- Color touch-screen operator interface
- Data and event logging
- Supports third party device integration
- Gas calibration histories (combustible and H₂S gas)
- Simple, reliable and cost-effective field wiring topology
- Addressable detection loop for buildings



Wall mounted NEMA 12 enclosure. Customer connections made at rail mounted "swing link" terminal blocks organized by input/output type.

PLC processor and touchscreen fitted with non-volatile memory.

MODEL 10K System Overview

The MODEL 10K System is designed with Rockwell Automation's industry proven Allen-Bradley ControlLogix™ programmable logic controller (PLC) technology and MSA advanced gas and flame detection field devices. Offering intelligence, flexibility and reliability, the system's controller hardware configuration and software have been tested by Factory Mutual to verify NFPA 72 compliance.

The principal elements of the MODEL 10K System include:

- Stand-alone local fire and gas alarm panel with touch screen operator interface
- Power supply and battery back-up to support the fire and gas system per NFPA 72
- Optional ControlNet dual media (coaxial cable or fiber optic) fault tolerant communication network, which supports communication between the local gas and flame panels and the optional MODEL 10K Central Station
- Optional computer-based MODEL 10K Workstation (with AC-powered UPS) to provide FM-approved central station monitoring
- Scalable from small systems to large plants
- Link up to 13 local gas and fire alarm panels over a network up to 25 kilometers long
- Easy integration with third-party auxiliary devices such as horns, beacons and fire suppression systems
- FM-approved ModBus, Ethernet or ControlNet system communications to DCS or ESD Systems
- HART® sensor communication support

The system's local and network communications equipment is based on ControlNet, a widely used high-speed, industrially hardened control and communication protocol.

A More Reliable Safety Solution

The MODEL 10K System combines the proven expertise of the industry's leaders in safety and automation. Developed with the gas/flame detection and systems integration expertise of MSA, as well as the process control/automation expertise of Rockwell Automation, the MODEL 10K System is a powerful and flexible total safety solution. You can count on MODEL 10K to ensure the safety of your people, equipment and plant.



NFPA 72-Compliant

FM-Approved

ControlLogix™ PLC Platform

*NFPA 72-Compliant
User-Friendly
Touchscreen Interface*



*Addressable Loop
for Buildings*



*ControlNet
Communications*



Modular Total Safety Solution



ControlNet

Redundant Media Fault-Tolerant Communication
Copper or Fiber Media | Distances to 15.5 miles | 5Mbit Bandwidth

*Factory Mutual-Approved
Central Station HMI*

A Powerful, Versatile Solution

From distributed control, network communications and control software to operator interfaces and field devices, MODEL 10K is the complete answer in a wide range of applications:



- Offshore Platforms
- Refineries and Pipelines
- Gas Compressor Stations
- Storage Facilities

- LNG Facilities
- CNG Fueling Terminals
- Tanker Loading/Unloading
- Chemical Plants

- Electric Power Plants
- Aircraft Maintenance Areas
- Aerospace Launch Facilities
- Automotive Plants

MSA Advanced Flame and Gas Detectors

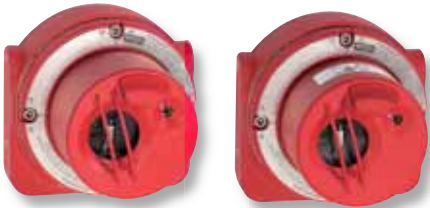
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FlameGard® 5 MSIR

The FlameGard 5 Multi-Spectral Infrared (MSIR) Flame Detector provides superior false alarm immunity with the widest field of view utilizing neural network technology (NNT). Options include relays, ModBus and HART.



FlameGard 5 Series Flame Detectors

FlameGard 5 Series UV/IR and UV/IR-H₂ Flame Detectors offer continuous optical path monitoring (COPM). They are suitable for petrochemical and industrial applications.



Ultima® X Combustible, Oxygen and Toxic Gas Monitor

The Ultima X Gas Monitor features a highly intelligent microprocessor-based design combined with the most reliable catalytic bead sensing technology. Options include relays, ModBus and HART.



Ultima XIR Gas Monitors

Ultima XIR Monitors are microprocessor-based, infrared point gas detectors for continuous monitoring of combustible gases and vapors. They feature DuraSource technology for extended sensor life.



Ultima OPIR-5 Open Path Gas Detector

The Ultima OPIR-5's advanced single beam sensing technology ensures high accuracy to eliminate drift and false alarms. It is ideally suited for monitoring tank farms, gas spheres, fence lines and rows of valves or pumps.



Ultima MOS-5 Hydrogen Sulfide Gas Sensor

The Ultima MOS-5 Sensor features a highly intelligent microprocessor-based design for use with thin film metal oxide semiconductor (TFMOS) sensors. Options include relays, ModBus and HART.



UltraSonic® EX-5 Gas Leak Detectors

Ultrasonic EX-5 Gas Leak Detectors offer fast detection of high pressure gas leaks without requiring the gas to come into contact with the detector. They are ideally suited for outdoor installations.



The Factory Mutual approval of the MODEL 10K System's gas controller and fire alarm functionality is based on using FM-approved versions of MSA flame and gas detectors with the System. Non-FM approved flame and gas detectors may be electrically compatible and suitable for use with the MODEL 10K System, but they are not FM-approved for use with the System.

MSA, the Global Leader in Safety



MSA's passion for safety comes from almost a full century of manufacturing the highest quality gas monitoring instruments. MSA designs and manufactures a complete line of flame and gas detection products for oil, gas, and petrochemical applications. Our passion shows through in our all-stainless steel, globally-approved flame and gas detection permanent instruments, and our reliable and durable single-gas and multigas portable instruments.

MSA is dedicated to designing and manufacturing superior flame and gas monitoring instruments to help ensure that men and women may work in safety, and that they, their families, and their communities may live in health throughout the world. Providing the best products, service, and support in the industry; that's MSA's passion.

Global Reach

MSA is the largest company in the world dedicated solely to producing a complete range of equipment and systems for worker and plant protection. With headquarters located in Pittsburgh, Pennsylvania, our operations extend around the world. Our vast resources ensure that an MSA affiliate is never far away and help to maintain our commitment to protecting lives in more than 120 countries, on all continents around the globe.



Local Presence

MSA-authorized representatives comprise one of the largest distribution networks, providing comprehensive sales, service, and support. MSA field sales representatives and service technicians are thoroughly trained in the use, application, and servicing of our products. With MSA, you have access to dedicated and highly-trained field staff as well as support within our Customer Service Center. Engineers, architects, and operators find flame and gas detection products to suit their every need, with the superior reliability, durability, and design excellence expected from MSA.



Note: This bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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