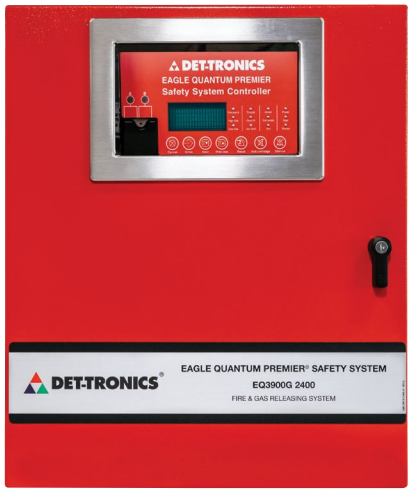
FLAME AND GAS DETECTION
AND RELEASING SYSTEMS

DET-TRONICS

Eagle Quantum Premier® EQ3900G Series



Fire and gas alarm control panel and automatic releasing for pre-action and deluge systems.

Carrier

The New Benchmark in Listed Flame & Gas Detection and Releasing Solutions

EAGLE QUANTUM PREMIER (EQP)

EQ3900G 2400 | 3600 | 4800 | 8300 | RIO

Superior Performance and Reliability

The latest series of Det-Tronics flame and gas detection releasing systems are now available.

The Eagle Quantum Premier (EQP) fire and gas alarm panels (EQ3900G) are ideal for a variety of industrial applications such as:

- Aircraft hangars
- Transport loading and unloading stations
- Battery energy storage systems (BESS)
- Natural gas pipeline compressor stations
- Offshore production platforms
- Paint spray booths

REPUTABLE & TESTED

The EQP system combines more than 45 years of industry knowledge and experience. The system has been tested and approved against rate-of-rise heating conditions.

PROGRAMMED & FLEXIBLE

Systems are fully programmed to meet your specific cause-and-effect requirements. Full Factory Acceptance Test (FAT) and field service commissioning services are provided as an option at the time of order.

INTUITIVE

The heart of the system – the EQP Safety System Controller – has an easy-to-read vacuum-fluorescent display (VFD). The system status conditions are communicated via this display in simple, easy to understand text.

HIGHLY CAPABLE

Inputs to the system include flame, gas, heat and smoke detectors, manual pull stations, and other contact inputs integral to the function of a safety instrumented system. The system will respond to a gas leak or fire within seconds, providing notification and releasing functions if desired.

PROJECT MANAGEMENT & SUPPORT

Every Det-Tronics system is assigned a dedicated project manager who provides detailed communication and works to ensure that manufacturing schedules are met. We also provide lifetime technical services on the systems that we manufacture.

DOCUMENTED

Every Det-Tronics system comes complete with a full drawing set that includes dimensional drawings, cause-and-effect logic tables and wiring connection diagrams. We also keep your project on file permanently should you ever need to make changes.

LISTED

Detection and releasing systems are required to be listed by the Occupational Health and Safety Administration (OSHA), and codes such as NFPA 72.

Det-Tronics systems are approved to FM 3010 in accordance with NFPA 72: National Fire Alarm and Signaling Code, 2013 Edition. The system is also certified SIL 2 capable* and is CE marked. The system is listed to provide the releasing function for preaction and deluge sprinkler systems.

*SIL 2 systems require the utilization of SIL 2 listed controllers and I/O modules.

- FM Approved (FM3010 Fire Alarm Signaling Systems)
- NFPA 72 (National Fire Alarm and Signaling Code)
- Certified SIL2 Capable (IEC 61508:2010)*
- CSA Approved
- CE Marked
- American Bureau of Shipping (ABS) Certificate of Design Assessment
- Certified for annunciation and releasing
- NEMA 4 enclosure is suitable for installation in general purpose locations

Eagle Quantum Premier Model Summary

Series/Model	Dimensions (HxWxD)	Inputs/Outputs	EQP Controllers	EDIO/AIM/Relay Modules
2400 EQP EQ3900G	24 x 20 x 8 in. (610 x 508 x 203mm)	16**	1	Any combination of 2
3600 EQP EQ3900G	36 x 24 x 8 in. (914 x 610 x 203mm)	32**	Up to 2	Any combination of 4
4800 EQP EQ3900G	48 x 24 x 10 in. (1219 x 610 x 254mm)	48**	Up to 2	Any combination of 6
8300 EQP EQ3900G	83 x 32 x 24 in. (2108 x 813 x 610mm)	144**	Up to 2	Any combination of 18
2400 RIO EQP EQ3900G	24 x 20 x 8 in. (610 x 508 x 203mm)	16**	0	Any combination of 2
3600 RIO EQP EQ3900G	36 x 24 x 8 in. (914 x 610 x 203mm)	32**	0	Any combination of 4
4800 RIO EQP EQ3900G	48 x 24 x 10 in. (1219 x 610 x 254mm)	48**	0	Any combination of 6

**All EQP safety system controllers accept up to 246 addressable nodes (flame & gas detectors, input/output modules). The quantity indicated represents the built-in input/output capacity of each module.

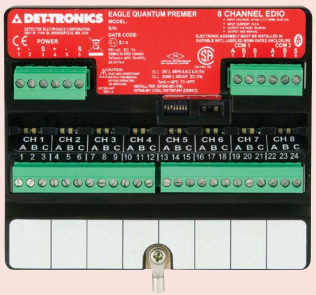
Innovative Fire & Gas Safety Solutions

EQP Safety System Controller (EQ3900G)

The EQP safety system controller is the heart of the distributed addressable system. It coordinates system device configuration, monitoring, annunciation, and control functions and includes numerous communication interface capabilities including Ethernet DLR, Control Net, RS485 Modbus, and onboard relays. Easy-to-read, scrolling display communicates status to the operator. Onboard event log function records system status, faults, alarms, and other vital information.

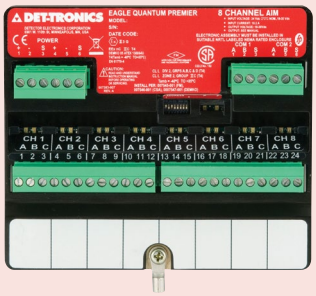
- Available in redundant configuration to increase the availability of the system
- Available in models that are certified SIL2 capable
- FM Approved and SIL2 capable allows compliance with NFPA 72
- Selectable quantity of Enhanced Discrete Input Output (EDIO) modules, Analog Input Modules (AIM) and Relay Modules (RM)
- EQP systems have provided a reliable solution for more than 20 years

A variety of flexible options to meet the requirements of many applications



Enhanced Discrete Input Output (EDIO) Module

- Eight channels of configurable input or output points that can be programmed for supervised or unsupervised operation
- Each input point can accept fire detection devices such as heat, smoke or manual pull stations
- Each output point can be configured for signaling or releasing output operation
- Each channel on the module is provided with individual indicators for active and fault conditions



Analog Input Module (EQ3710AIM)

- Connects devices with a calibrated 4-20 mA output signal to the Eagle Quantum Premier System
- Flame detector 4-20mA inputs are FM Approved as an NFPA 72 initiating device circuit
- Each channel on the module is provided with individual indicators for active and fault conditions

Relay Module (EQ3720RM)

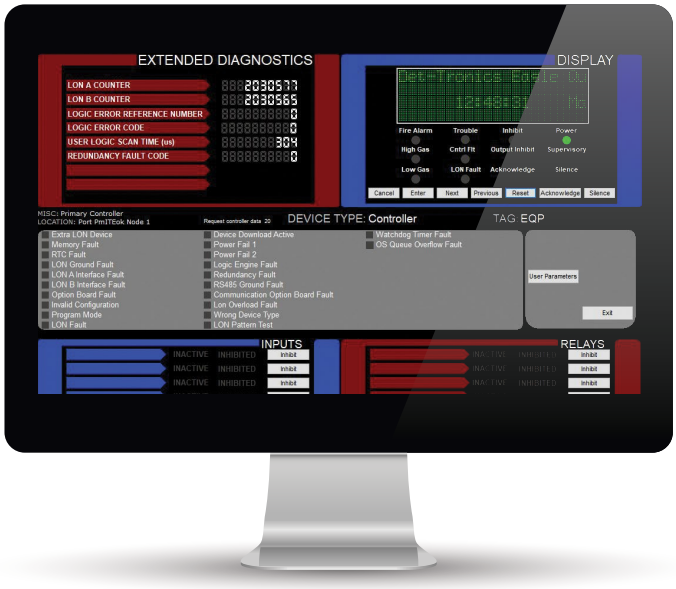
- Provides eight relay output channels for use with non-supervised devices (PLCs, fans, dampers, motor control centers, etc.) or devices with their own supervision
- Each channel on the module is provided with individual indicators for active and fault conditions

Hardware, software and connectivity to solve the most demanding situations

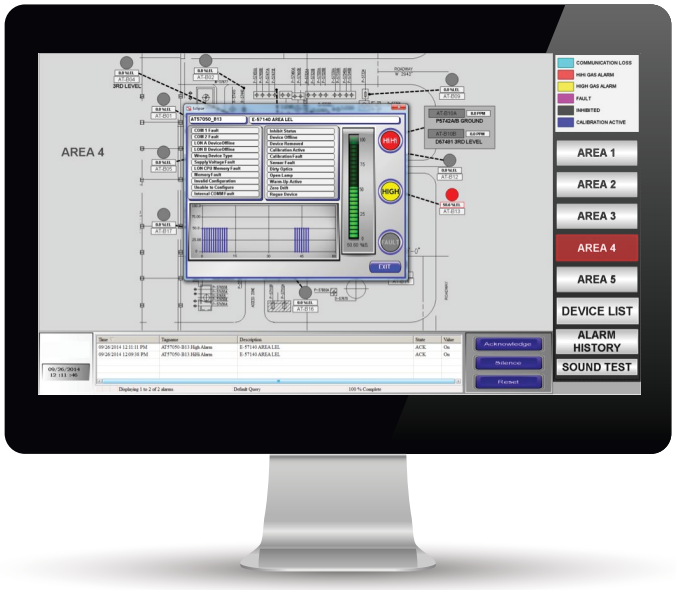
FULL OPERATIONAL CONTROL

The safety system software platform offers an all-in-one solution that is designed for easy configuration, user programming and diagnostics.

- Configure flame and gas detectors, communication ports, controllers, I/O modules and other field devices
- Program custom user logic to meet cause and effect requirements
- Monitor, locally or remotely, the real-time status of devices on the LON (Local Operating Network)
- Connect and distribute data to third-party software using OPC server
- Log alarms, events, configuration changes and calibration of network gas detectors
- Backup/restore the system project file from controller
- Diagnose issues related to communication with devices



Safety system software provides real-time status and diagnostics.



Integrate with existing site control systems such as SCADA, DCS and Process PLC

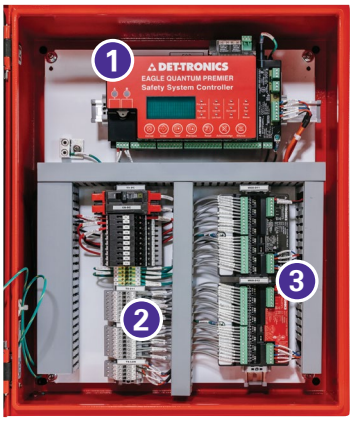
After your system is in place, our global network can provide service, training, and support at your site.

Innovative Fire & Gas Safety Solutions

EAGLE QUANTUM PREMIER **EQ3900G 2400**

16 INPUTS/OUTPUTS

Allows up to 16 programmable inputs or outputs in various combinations. OSHA red, lockable carbon steel enclosure with stainless steel framed window kit for general purpose locations.

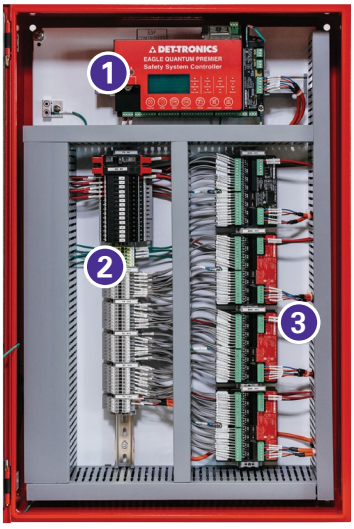


1. SIL 2 Eagle Quantum Premier safety system controller
2. Interposing terminals for field wiring
3. Includes any combination of two modules (SIL2 EDIO, SIL2 AIM, Relay)

EAGLE QUANTUM PREMIER **EQ3900G 3600**

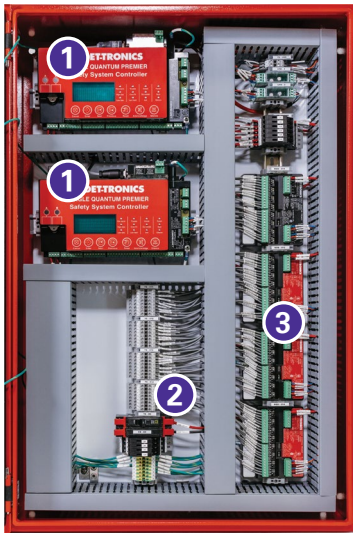
32 INPUTS/OUTPUTS

Allows up to 32 programmable inputs or outputs in various combinations. OSHA red, lockable carbon steel enclosure with stainless steel framed window kit for general purpose locations.



1. SIL 2 Eagle Quantum Premier safety system controller, available in simplex or redundant design
2. Interposing terminals for field wiring
3. Includes any combination of four modules (SIL2)

Supports two controllers with redundant design



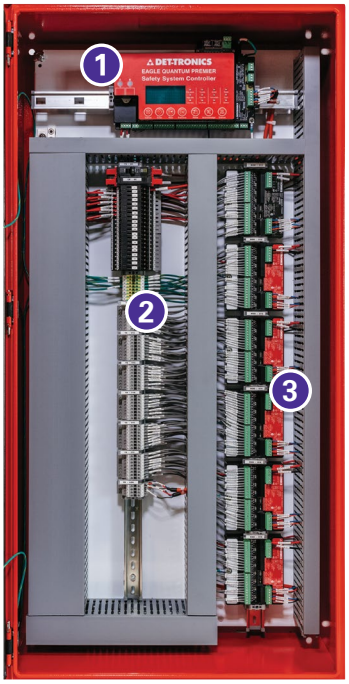
Upgrade your legacy Det-Tronics system to **Eagle Quantum Premier EQ3900G** to protect your facility with state-of-the-art technology.

Contact us today to get started.

EAGLE QUANTUM PREMIER **EQ3900G 4800**

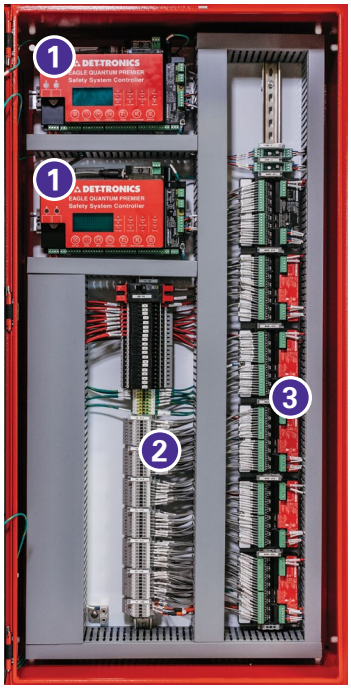
48 INPUTS/OUTPUTS

Allows up to 48 programmable inputs or outputs in various combinations. OSHA red, lockable carbon steel enclosure with stainless steel framed window kit for general purpose locations.



1. SIL 2 Eagle Quantum Premier Safety System Controller, available in simplex or redundant design
2. Interposing terminals for field wiring
3. Includes any combination of six modules (SIL2 EDIO, SIL2 AIM, Relay)

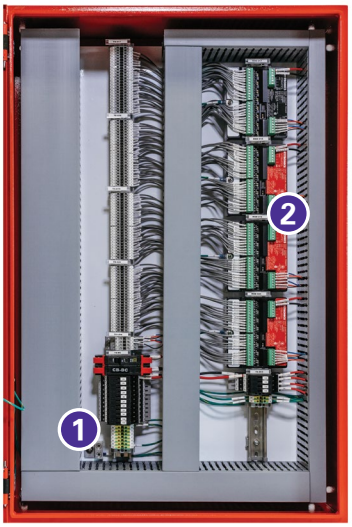
Supports two controllers with redundant design



EAGLE QUANTUM PREMIER **EQ3900G 3600 RIO**

32 INPUTS/OUTPUTS

For larger systems where field wiring runs can be long and costly, the EQP EQ3900G 3600 RIO allows for the remote installation of the modules. Allows up to 32 programmable inputs or outputs in various combinations. OSHA red, lockable carbon steel enclosure with stainless steel framed window kit for general purpose locations.



1. Interposing terminals for field wiring
2. Includes any combination of four modules (SIL2 EDIO, SIL2 AIM, Relay)

Det-Tronics Power System & Initiating Devices

Power System Components

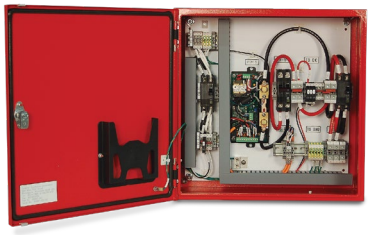
Power Supplies / Battery Chargers

- Listed for use with EQP3900G systems
- 10, 30 and 75 Ampere models available
- Wall mounted brackets available

Backup Batteries and Battery Boxes

- Protects backup batteries
- Stores batteries in orderly fashion

Power Supply Distribution / Monitoring Enclosures



- Monitors power supply status
- Digitally communicates status to the EQP Safety System Controller
- Notifies in case of:
  - Power supply failure
  - Loss of AC input power
  - Loss of backup battery power
  - Power round fault
- High/low AC and DC voltage monitoring
- Backup battery current charge level

Industry-leading Fire and Gas Detection Field Devices

X-Series Flame Detector (X3301)

PointWatch Eclipse® Infrared Gas Detector (PIRECL)

FlexVu® Universal Display (UD10)

Notification Appliances and Solenoids

92-1089-1.0

DET-TRONICS

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