QUADSCAN II

SERIES 7400 ONE TO FOUR CHANNEL RECEIVER

SCOTT®
HEALTH & SAFETY

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Centralizes Monitoring and Alarming for Gas Transmitters and Fire Detectors.

The QuadScan II receiver offers an abundance of built-in, flexible features that make it the ideal receiver to economically centralize display and alarming for up to four gas transmitters, fire detectors, or other 4-20mA instruments. QuadScan II's in-the-field "Channel Expansion" feature allows users to initially purchase only the channels they need. Unused channels can then be easily activated with the purchase of a passcode.

Housed in a NEMA-4X wallmount enclosure, the QuadScan II receiver provides power to 2-, 3-, or 4-wire transmitters and is available with an uninterruptible, battery-backed power supply to ensure constant operation during power outages. The highly visible interface includes a backlit LCD and bright LEDs that display each channel's concentration and alarm status while the built-in, 85 decibel horn provides audible notification to personnel of alarm conditions. The LCD's six alphanumeric characters can be programmed to identify each input. Standard concentration units such as PPM, PPB, or % are selectable. The QuadScan II receiver provides 4-20mA outputs for retransmission to other system controllers such as a DCS or PLC. Outputs are easily field calibrated to overcome line loss.

Powerful Alarm and Relay Features

The QuadScan II receiver provides common low alarm, high alarm, fail, and horn relay outputs. The alarm relays can be programmed to operate with time delay, as failsafe/non-failsafe, and automatic/manual reset. A front panel "horn silence" button enables user to deactivate the horn relay during alarm conditions, while the "reset" button deactivates latching alarms when alarm conditions have ended. For additional relay options, the QuadScan II receiver offers powerful relay programming features through a separate external relay module with a built-in power supply that provides eight individual 5 amp relays.

Individual or simultaneous display of each channel's output.

Plug-in terminal connection for easy wiring.

QUADSCAN II RECEIVER DISPLAY

Each input channel is simultaneously displayed on a large, back lit LCD. Programmable six character channel "tags" make for easy Identification of the input.

Features of the QuadScan II Receiver

Accepts input from any 4-20mA transmitter.

- Individual or simultaneous display of each channel's output.
- Individual Inhibit/Fail, Warn, and Alarm LEDs.
- Common 5A SPDT relays for Fail, Warn, Alarm, and Horn.
- Programmable time delay, failsafe/non-failsafe, and manual/automatic reset.
- Optional relay module for up to 8 relays.
- Programmable and assignable to provide:
  - relay activation for each channel
  - voting logic
  - zoning logic
- 0/4-20mA output for each channel.
- Universal 90 to 280VAC power supply.
- Remote relay reset.
- Programmable “Lock-Out” mode.
- Built-in horn.
- Optional 24VDC battery back-up.

Intelligent Control with the QuadScan II Receiver

The QuadScan II receiver brings intelligent control to a wide range of applications. Package any of the Scott gas or flame detectors into a powerful, small-scale detection system for your facility.

Applications for the QuadScan II Receiver

Pumpstation Monitoring/Sewage Treatment Facilities
Hydrogen sulfide, oxygen deficiency and combustible gas transmitters combine to protect facility and personnel.

Gas Cylinder Storage Areas
For protection against a variety of potential gas leaks in multiple locations.

Flame Detection and Fire Suppression Systems
Use FlameVision gas detectors and the QuadScan II receiver's voting and zoning logic to detect and suppress fire hazards.

Oil and Gas Refineries
Infrared and electrochemical based detectors provide the detection capabilities for gases typically found in or around refineries

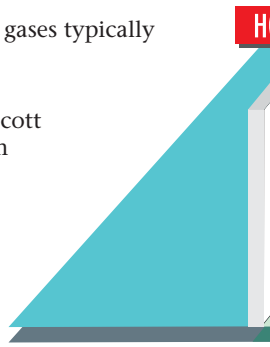
Chemical Industries
From textiles to pharmaceutical applications, the QuadScan II receiver and other Scott instruments and gas transmitters are used for the detection of a complete spectrum of airborne hazards.

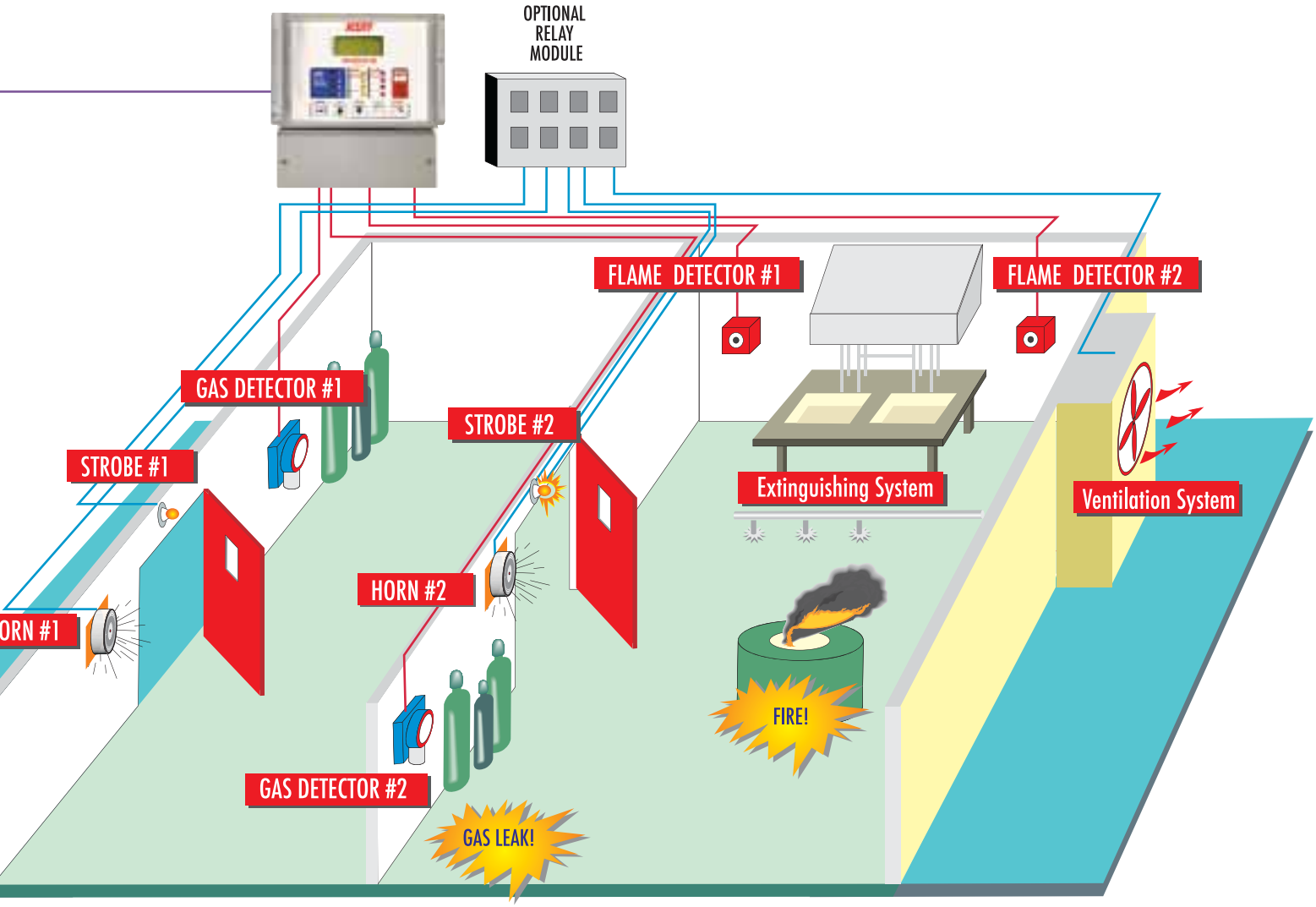
Power, Metal, and Coal Production
Detect the presence of carbon monoxide, hydrocarbons (%LEL), hydrogen, and hydrogen sulfide.

Parking Garages
Multiple carbon monoxide and/or nitrous oxide detectors provide protection from hazardous build-ups of gases from automobiles and generators.

Food and Beverage
From breweries to juice production facilities, Scott instruments protect facility and personnel from carbon dioxide, carbon monoxide, oxygen deficiency, and more.

Semiconductor Facilities
Detect hydrogen or 40+ toxic gases such as arsine, boron trifluoride, chlorine, and much more.





Zoning and Voting Logic

The QuadScan II receiver and its optional relay module bring the power of zoning and voting logic to your relays. Users determine how and when a relay or group of relays should operate through the easy-to-use interface.

Voting Logic

Provides extra protection against false alarms while permitting two or more transmitters to determine the presence of a hazard. In the example above, Flame Detectors #1 and #2 must both agree that a fire is present before initiating a flame suppression system. A single unit in alarm will activate audible and visual alarms alerting personnel of a potential fire.

Zone Logic

Permits operators to define (relay) zones for the operation of auxiliary devices. In the example above, Gas Detector #2 has detected a gas release in Room 2, relays have been "zoned" so that both Horns #1 and #2 activate, however, only Strobe #2 is activated for visual confirmation of which area the release has taken place.

Time Delay On/Hold

Gives added flexibility to the operation of auxiliary devices by permitting users to determine the amount of time a relay will either take to become active or how long it will continue to be active after a detection condition has occurred. In the example above, the relay operating the ventilation system has been selected to remain activated for 15 minutes to ensure the area has been cleared of the hazard. The gas detectors have been programmed with five second time delay to prevent nuisance alarms.

SPECIFICATIONS/INSTALLATION

QUADSCAN II SERIES 7400 ONE TO FOUR CHANNEL RECEIVER

GENERAL

Enclosure . . . . . .NEMA-4X Wall Mount
Temperature Range . . . . . .-14°F to 122°F (-25°C to 50°C)
Sensor . . . . . .Depends on gas type.

Weight . . . . . .4 lbs. (1.8Kg)
Optional Relay Enclosure . . . .1 lb. (.5Kg)
Horn . . . . . .Integral - 85dB @ 3 ft.
Power . . . . . .90 to 280VAC 50/60Hz or 24VDC. 400mA max [without transmitters]

Common Relays . . . . . .Low alarm, high alarm, fail and horn. SPDT rated 5A@250VDC

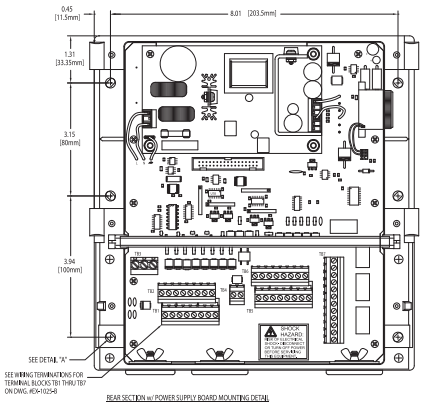
Individual Relays (optional) . . . . . .Total of eight programmable relays
(6) SPDT 5A@30VDC/277VAC
(2) DPDT 5A@ 30VDC/ 277VAC
Relays are installed in a separate NEMA-4X wallmount enclosure and must be mounted within 50 ft. of the 7400 monitor.

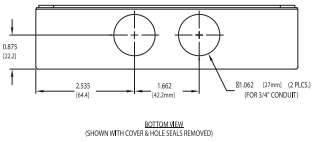
User Interface . . . . . .Non-intrusive via magnet
Display . . . . . .4 line/16 digit per line backlit LCD for individual or simultaneous display of each channel output. Individual (per channel) LED indication for Fail, Low Alarm, High Alarm, and Inhibit

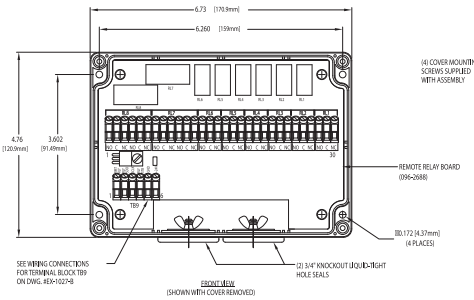
Repeatability . . . . . .± 0.5% full scale
Accuracy . . . . . .± 1% full scale

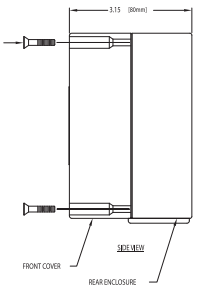
APPROVALS

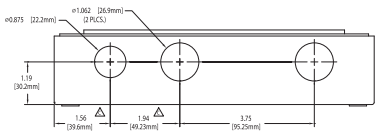
Warranty . . . . . .1 year
Battery Backup Enclosure (optional) . . . . . .7.5 in.(d) x 12 in.(w) x 12 in.(h)

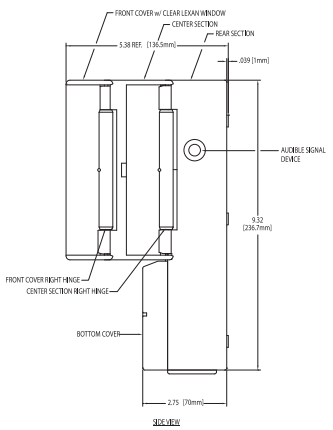


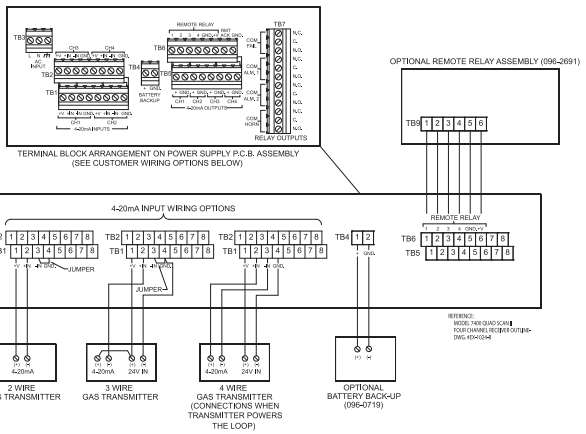


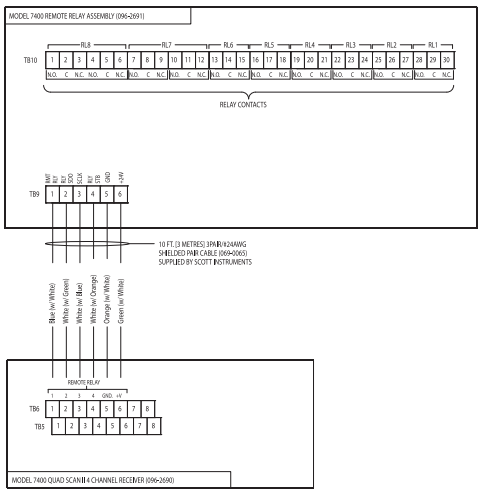












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