NOVA-5000 Detection and Control System

- ***Designed for Rugged Industrial Environments***
- ***Standard Module Mounting Rack with Backplane accommodates any mix of compact plug-in modules***
- ***Input Modules for Fire Detection, Gas Detection, and Process Monitoring***
- ***Output Modules for Audible/Visual Alarms, Extinguishing System Control***
- ***Control Modules for Cross-Zoned and Voting Applications***
- ***Continuously Supervises Field Wiring for Open Circuits, Short Circuits, and Ground Faults***
- ***Suitable for Installation per NFPA 72***
- ***Detection, Actuation, and Control System per NFPA 12, 13 and 2001***
- ***Inputs and Outputs protected against RFI, EMI and Surges***
- ***Redundant Power Supply Systems operating at 24 volts DC with "Bumpless Transfer" to backup batteries***
- ***Interfaces to external Relays, Logic, Data Acquisition Systems or PLC's***
- ***Provides Subsequent Alarm Signals as standard feature***

Listed Control Unit for Fire Protective Signaling Systems (UOJZ) and Releasing Devices (SYZV) file S4927(S)

Certified to Electromagnetic Compatibility, Harmonic Emissions and Immunity requirements for Fire, Intruder and Social Alarm Systems.

The SST NOVA-5000 Detection and Control System consists of a family of high performance, high reliability plug-in modules designed specifically for industrial, institutional and life safety applications. The required level of reliability is insured by a number of ingenious design approaches including extensive use of ASIC chips, industrial quality components, and design for operation under less-than-perfect power supply conditions. Each NOVA-5000 System is customized for the intended application by selecting the proper mix of System Modules. These System Modules, when assembled into a mounting rack, provide operating controls and indicator lights applicable to the required functions.

The standard NOVA-5000 Module Mounting Rack is a 5¼ inch high "Card Cage" designed for installation in a standard 19 inch EIA rack. Most of the NOVA-5000 Modules are 1 inch wide, and the standard rack provides spaces for mounting sixteen 1 inch modules. A typical NOVA-5000 System will provide for protection of one or more hazard areas. A printed circuit "back plane" is mounted on the rear of the rack for each of the hazard areas. This back plane interconnects the modules and also provides screw terminals for connection of the wires to field devices. Each module connects to the backplane via mating connectors. Connectors use gold contacts to insure reliable connections in industrial atmospheres. Modules may be inserted or removed from the rack with power on without any adverse effects. Each module space is keyed so that it will accept only the type of module for which it is wired. A retaining screw is provided on the front of the module for positive mounting.

A NOVA-5000 System consists of one or more module racks for each protected zone, plus the specific mix of modules as required to provide the protection for that zone. For zones requiring more than 16 modules, two or more racks may be interconnected together. The function of each module is clearly and specifically indicated on the front panel of the module, so that operation of the NOVA-5000 System during an emergency will be obvious to all personnel.

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The Fire and Gas Detection and Control System shall be of modular construction. All modules shall be provided by a single manufacturer, and all shall be listed by at least one independent testing organization for use together in approved systems. The manufacturer shall have available modules for Fire Detection, Gas Detection, Process Monitoring, Cross zoned or voted detection, Audible/Visual Alarming, and Control of Extinguishing Agents. All modules shall plug into standard 19" wide, 5" high mounting racks, and it shall be possible to setup the racks to accommodate any desired mixture of modules. Modules shall he keyed such that any replacement module can only be plugged into a space specifically assigned to that type of module. Module plug-in connectors shall utilize gold contact material to insure reliability with low level signals in corrosive atmospheres. The System shall be designed so that no spurious alarms or operations will he generated when any module is inserted or removed from the rack with power applied, and this shall be specifically stated in the manufacturer's published data sheet. All inputs and outputs shall be protected against radio frequency and electromagnetic interference and power surges. The System shall be equipped with redundant power supplies to permit continuous operation upon failure of one supply. The Fire and Gas Detection System shall be suitable for installation per NFPA 72 as a Protective Signaling, Waterflow Alarm, or Sprinkler Supervisory Signal System, and shall meet the Detection, Actuation and Control System requirements of NFPA 12 for CO_2 service and NFPA 2001 for Clean Agent Fire Extinguishing service. It shall be possible to silence any audible alarm signal generated by the system. The System shall have a Subsequent Alarm feature, such that any active audible alarm signal which has been silenced will be reactivated upon generation of subsequent alarms. The Fire and Gas Detection and Control System shall be manufactured by Safety Systems Technology, Temecula, California, their NOVA-5000 System, or approved equivalent. All detection, sensing and alarm devices shall be those supplied or recommended by Safety Systems Technology for use with their NOVA-5000 System.

TECHNICAL SPECIFICATIONS

System Operating Voltage:	16 to 32 Volts DC (24 VDC Nominal) System will operate within specifications from any supply voltage within the specified range. All modules accept dual redundant supplies, but will operate with only one present.
Ambient Operating Temperature:	+ 14 to + 140°F, -10 to + 60°C System maintains all specifications over this range.
RFI Characteristics:	No adverse svstem response when a 6 watt hand-held radio is operated within 1 foot of equipment. Typical specification for industrial two-way radio.

See individual data sheets for additional specifications applicable to each module and/or component.

ORDERING INFORMATION

See individual data sheets for each module and/or component.

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