ONGUARD®

800 System

Modular Special Hazard Safety Controls

SYSTEM CONCEPT

The Allestec 800 series gas and fire control panel is designed to supervise and respond to the result of a gas or fire signal while maintaining simple panel annunciation. This modular system is primarily suited for the end user who requires a minimum learning curve and simplicity in installation, as well as operation. One panel assembly is designed to accommodate small to medium requirements. As many as 32 points of initiating devices can accommodate a panel assembly. Field wiring is completed on a point to point installation between devices and the panel. A remote abort is possible with the optional digital Abort Panel. Completely occupied, the entire panel dimensions are only 3.5" high X 19" wide X 7" deep.

GAS / FIRE SYSTEM INTEGRATION IN A SINGLE ENCLOSURE

SELECTABLE MODULES

Task-specific modules perform functions related to their respective input detectors or output appliances. The modules can be selected to accommodate the best possible configuration while allowing room for expansion as necessary. Removal of any module from the slot will induce a system fault.

SYSTEM EVENTS

All faults are displayed at the lower half of the modules and are bussed to the system Fault Module. The Fault Module can be silenced for any successive faults. All faults will be locally announced at their respective modules and transferred at the Fault Module. All audible appliances can be silenced locally or remotely. An inhibit function is provided to allow system testing of all operations without solenoid activation. The panel cannot be reset until all active alarms have been cleared.

FEATURES

- EIA sanard 19" width panel
- Integrates gas and fire control in same enclosure
- Designed for special hazard industrial environments
- Conforms to all NFPA standards for signaling and releasing
- Abort module available to hold-delay or restart discharge
- Release module is able to activate a reserve tank if the first tank fails, or fire remains after first tank is released
- Fully automatic operation
- Inhibit to invoke a system test
- 24VDC input can use customer redundant power rail
- Voting capabilities
- Time delay for single spectrum detectors
- Low power CMOS and microcomputer design
- Three year parts and labor warranty

APPLICATIONS

- Oil refineries
- Chemical plants
- Aircraft hangars
- Nuclear power plants
- Off shore oil platforms
- Co-generation power plants
- Natural gas compressor stations
- Petroleum products pumping stations

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PROTECTION

The system is protected from reverse voltage polarity, power surges, and RFI energy. Under voltage or over voltage from the redundant power source will induce a fault and be displayed on the Fault Module. A cover protector plate spans the length of the rack, containing the wire and associated terminal strips. Flow-through ventilation allows cool and silent operation without the need for forced air. The optional locking clear Plexiglas door opens for total access to the front of the panel.

POWER

Allestec has designed the panel to accept customer available redundant power supplies. Although the panel is designed and approved for 20 - 28VDC operation, a source voltage as low as 14VDC will operate panel.

QUALITY AND RELIABILITY

High quality components are carefully selected for the manufacturing of the panel. All output relays are sealed and contain an inert gas to prevent contacts from oxidizing. All standard resistors are carbon composition quality. Precision resistors selected are long-term stability military type conformal coated RN series. All contact mating surfaces are gold plated to enhance signal conduction and reduce oxidation. Printed circuit boards contain double-sided plated through holes. Solder mask is over bare copper to prevent wetting action from wave and IR soldering. All modules are cycled with elevated heat in the environmental chamber prior to testing.

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	Customer supplied 20 - 28 VDC redundant power sources
Absolute lowest operating voltage:	14 VDC
System power requirements:	Dependent on quantity and type of modules installed
Dry relay outputs:	5 amps, 30 VDC resistive All output relays sealed and contains an inert gas Relays customer selective for N.O. or N.C.

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

REPRESENTED BY:

ONGUARD®

800 System

Modular Special Hazard Safety Controls

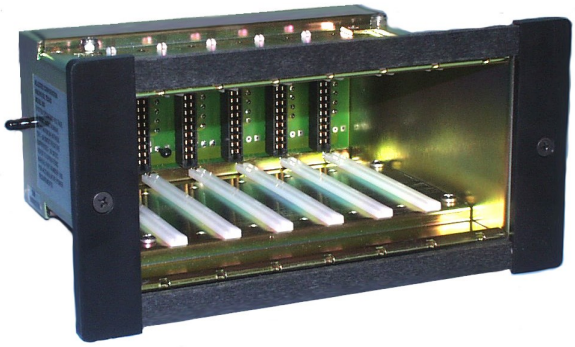
MODULE ENCLOSURE

The Allestec model 800 expandable panel accommodates all modules of the 800 series gas and fire suppression family. Constructed of durable .1" zinc chromate plated steel, the heavy-duty housing is designed for rigorous use in industrial and high hazard environments. The standard EIA 19" rack can be custom ordered to any length, occupying minimum space while maximizing configurations. Matching blank modules can be ordered to occupy any open slots. The maximum height of the rack is only 3.5" and is supplied with a locking clear Plexiglas door. An alternative architect bezel kit (shown) is also available.

SYSTEM MOTHER BOARD

The back of the panel assembly incorporates a full-length motherboard, allowing the transfer of signal communication between the modules. Durable Phoenix terminal strips are connected to the customer-accessible rear panel, allowing easy wire insertion by the 45 degree angle of the connectors. The motherboard terminal block connections are designated by the copper etch on the board itself and by the label located directly on the terminal strips.

Power and ground terminals are located below the main terminal strip and accommodate dual power supply connections. This power plane is bussed across the motherboard, supplying power to all modules and their respective appliances connected to the terminals.



FEATURES

- EIA industry standard rack expandable up to 19"
- High current 5 amp AC or DC relay connections
- Screw latch locks modules in place
- Gold plated card edge connectors
- All modules bussed to each other
- Only 3.5" high
- Steel housing reduces RF penetration
- User-specified polarized keying of module location
- Up to four isolated zones

REPRESENTED BY:

RACK enclosure

CE

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SPECIFICATIONS

ACCOMMODATIONS:	Maximum 16 modules
MOUNTING POSITION:	Any angle
ELECTRICAL CHARACTERISTICS:	No active device other than transient suppression Terminal connections rated at 5 amps, 30 VDC Contact Allestec for AC operation
WEIGHT AT 19":	7.5 lbs.
MATERIAL HOUSING:	.1" thick Zinc chromate plated steel side panels; top and bottom are .059" thick Housing assists in the attenuation of induced RF radiation
BACK PLANE MOTHER BOARD:	3/32" thick FR4 two-ounce fiberglass, UL listed Double-sided plated printed circuit board Solder mask on both sides of board
MODULE LOCATION:	Any order except Fault Module required on right side of last module Polarizing keys supplied for final location of modules
FIELD WIRE CONNECTIONS:	Ten-position terminal strip for each module accepts up to a 14 AWG single or stranded conductor
POWER CONNECTION:	Screw type terminal blocks for 24 VDC connection of dual power supplies Terminal strip accepts up to 14 AWG single or stranded conductor

PART NUMBER	DESCRIPTION
800-1690-XX	Rack assembly with low profile bezel - X represents number of slots required
800-1192-XX	Rack assembly with front locking door - X represents number of slots required

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800 System

Modular Special Hazard Safety Controls

The model 1440 Input Module is the initiating module which connects up to three independent dry relay contacts from detector outputs. Adding additional modules expands the number of points of fire detection in three point increments. The three discrete inputs can be voted between each other, adding confidence to the system. Output relay is individually controlled from the DIP switch configuration. The Alarm, Release and Relay Modules are activated in a pre-selected sequence established from the DIP switch configurations.

Inputs are individually monitored for a fault condition. A fault will be announced with its respective yellow fault LED and will activate the Fault Module. The detector power output fuse is monitored and rated for 2 amps.

REPRESENTED BY:

FEATURES

- Three independent inputs applicable to any dry input contact device, such as optical, smoke, or heat detectors
- Three independent input time delays adjustable from 0 to 15 seconds
- Auxiliary form C fire relay can be independently voted
- Relay is selective for latching or non-latching
- Memory feature allows alarm LED to remain on during alarm, and blinks when the alarm clears
- Input voting capability has independent control transferred to Alarm Module and Release Module
- Recessed detector test switch option able to source or sink current
- Detector fused power output and reset switch
- All field wiring supervised per NFPA requirement

INPUT module

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CE

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current:	31mA quiescent, 65mA alarm
Detector power source fuse rating:	2 amps DC
Dry relay outputs:	5 amps, 30 VDC resistive Output relay sealed and contains an inert gas Auxiliary fire relay is customer selective for latching or non-latching Relay is form C configuration

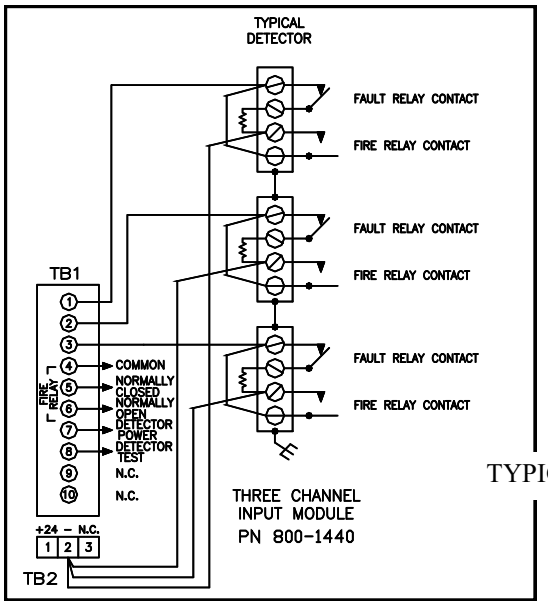
MECHANICAL

Size:	1.04”W X 3.46”H X 6.4”D
Weight:	3.7 ounces

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

PART NUMBER	DESCRIPTION
800-1440	Input Module
800-1211	End of line resistors, 3 supplied
800-1378	Test switch rod
800-1186	System manual



TYPICAL WIRING

ONGUARD®

800 System

Modular Special Hazard Safety Controls

INPUT VOTE module

Model 1530 Input Module is a primary detector module that accepts two independent dry relay contacts from initiating devices. This module can vote between its local two input channels as well as other Input Vote Modules, requiring the combination of up to four valid alarms to confirm the alarm condition. The voting configuration can trip the Alarm, Release and Relay Modules based on DIP switch settings.

Inputs are individually monitored for a fault condition. A fault will be announced with its respective yellow fault LED and will activate the Fault Module. The detector power output fuse is monitored and rated at 3A.

REPRESENTED BY:

FEATURES

- Module can occupy same rack as three channel model 1440 Input Module
- Accepts two independent inputs applicable to any dry input contact device, such as optical, smoke, or heat detectors
- Optional time delays are adjustable from 0 to 15 seconds for each input
- Auxiliary form C fire relay can be independently voted
- Relay is selective for latching or non-latching
- Memory feature allows alarm LED to remain on during alarm, and blinks when alarm clears
- Input voting capability has independent control transferred to Alarm Module and Release Module
- Recessed detector test switch option able to source or sink current
- Individual open collector outputs for each channel operate in failsafe mode
- Detector fused power output and reset switch
- All field wiring supervised per NFPA requirement

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CE

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current:	30mA quiescent, 54mA alarm
Detector power source fuse rating:	3 amps
Dry relay outputs:	5 amps, 30 VDC resistive, 250 VAC Output relay sealed and contains an inert gas Auxiliary fire relay is customer selective for latching or non-latching Relay is form C configuration

MECHANICAL

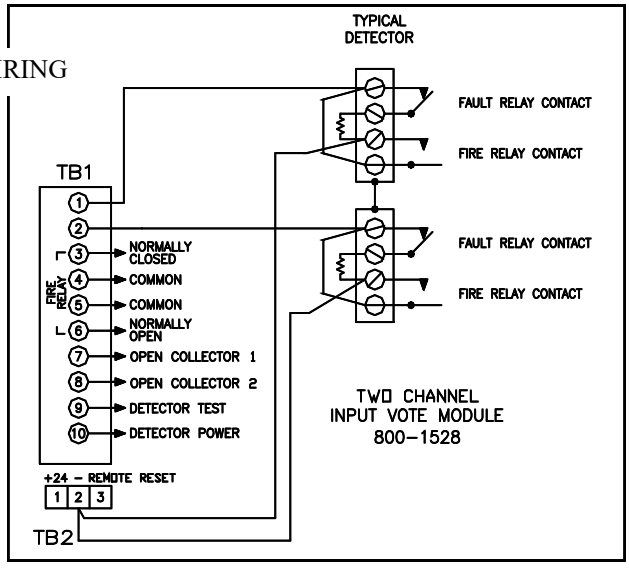
Size:	1.04”W X 3.46”H X 6.4”D
Weight:	3.7 ounces

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

PART NUMBER	DESCRIPTION
800-1530	Input Module
800-1211	End of line resistors, 2 supplied
800-1378	Test switch rod
800-1186	System manual

TYPICAL WIRING



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800 System

Modular Special Hazard Safety Controls

Single or multiple cascaded pull stations independently operate the Model 1441 Manual Pull Module. This module has many features that allow the customer to configure the release system in accordance with local jurisdictions. Activating the Manual Pull Module will result in its local relay transfer and beckon the Alarm, Release and Relay Modules. Customer has options to select instant or pre-determined time delay on release mechanism located at the Release Module. The ability to control the discharge of one or two tanks is also selectable.

An inhibit switch allows system testing while preventing the release mechanism from actuating. The customer is aware of the inhibit by the blinking inhibit LED and annunciation of the Fault Module. The Alarm Module will activate upon receiving the contact closure of a pull station.

The Manual Pull Module input is individually monitored for a fault condition. A fault will be announced with its respective yellow fault LED and will activate the Fault Module.

FEATURES

- Multiple manual pull stations monitored
- Inhibit feature allows system testing
- Auxiliary form C output relay
- Ability to select instant or delayed agent release
- Ability to select one or two tank discharges
- All field wiring supervised per NFPA

REPRESENTED BY:

MANUAL PULL module

CE

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SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current:	25mA quiescent, 42mA alarm
Dry relay outputs:	5 amps, 30 VDC resistive Output relay sealed and contains an inert gas Relay is form C configuration

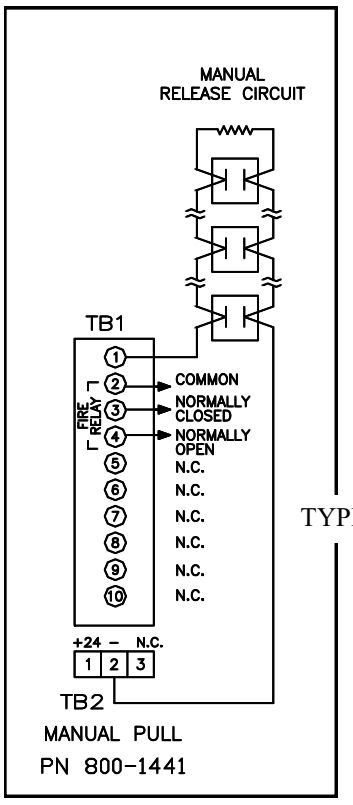
MECHANICAL

Size:	1.04”W X 3.46”H X 6.4”D
Weight:	3.1 ounces

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

PART NUMBER	DESCRIPTION
800-1441	Manual Pull Module
800-1211	End of line resistors, 1 supplied
800-1186	System manual



TYPICAL WIRING

ONGUARD®

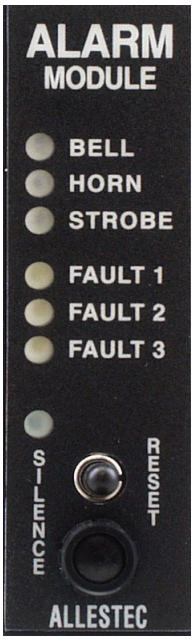
800 System

Modular Special Hazard Safety Controls

The Allestec Alarm Module, model number 1442, is programmable from other modules within the panel assembly to facilitate in the announcement of audio and visual external appliances. An alarm signal will turn on channel one, normally the bell channel. Channel two, the horn circuit, is simultaneously turned on. A silence switch is provided to silence the audible alarm(s) or any successive alarms. The strobe circuit located on channel three, remains in the alarm condition until the primary Input Module(s) can be reset. This safety feature ensures that all alarms have been cleared before the Alarm Module strobe channel can be reset.

An external input allows the remote field activation of the Alarm Module. This input duplicates the function of the other modules connected through the motherboard buss. The remote silence input, or the silence switch located on the front panel, can then be depressed to silence the appliances. Any reoccurrence of alarms, locally or remotely, will activate the module again.

Each output is individually monitored for a fault condition. A fault will be announced with its respective yellow fault LED and will activate the Fault Module.



FEATURES

- Three appliance channels
- Remote trip and silence inputs
- LED local alarm annunciation
- All field wiring supervised per NFPA

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ALARM module

CE

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current excluding appliances:	30mA quiescent, 90mA maximum
Relay outputs:	Three relays fused at 2 amps each, 24 VDC Output relays sealed and contains an inert gas
Alarm mode:	Utilizes reverse polarity on alarm, supplying 24 VDC to the appliances

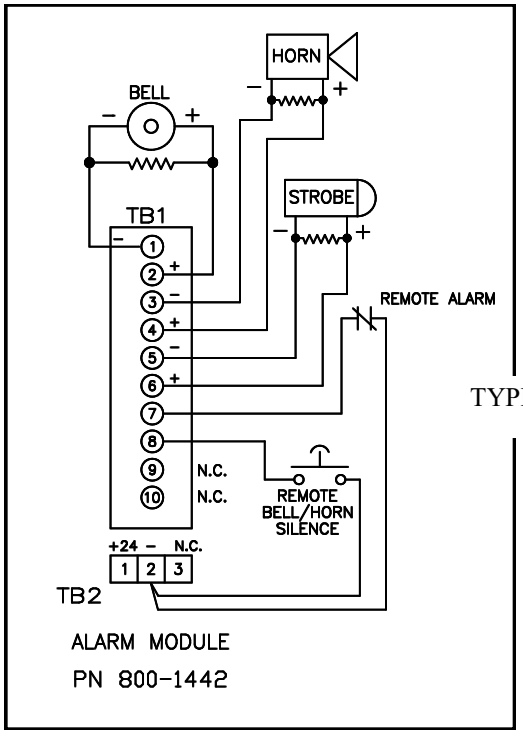
MECHANICAL

Size:	1.04”W X 3.46”H X 6.4”D
Weight:	3.8 ounces

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

PART NUMBER	DESCRIPTION
800-1442	Alarm Module
800-1211	End of line resistors (3 supplied) - may not be required on all appliances
800-1186	System manual



TYPICAL WIRING

ONGUARD®

800 System

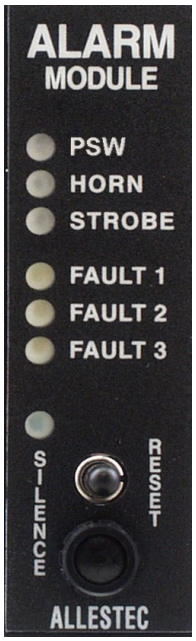
Modular Special Hazard Safety Controls

The Allestec Alarm Module, model 1442-36 is internally programmable and from other modules as well, to facilitate in the announcement of audio and visual external appliances. There are two separate circuits identified as a horn and strobe, but their text can be changed. A silence switch is provided to silence the audible alarm(s) or any successive alarms. The remote silence input can also be depressed to silence the audible appliances. The strobe circuit located on channel three remains in the alarm condition until the primary initiating module(s) can be reset. This safety feature ensures that all alarms have been cleared before the Alarm Module strobe channel can be reset.

There is an input labeled PSW (Pressure Switch) that is monitoring a supervised N.O. field contact. When this contact is closed, the Alarm Module will activate.

Another external convenience input allows the remote field activation of the Alarm Module as well. Any reoccurrence of alarms, locally or remotely, will activate the module again.

Each of the three channels is individually monitored for a fault condition. A fault will be announced with its respective yellow fault LED and will activate the Fault Module.



FEATURES

- A supervised N.O. contact input to turn on module remotely through a pressure switch or other contact device.
- Two appliance output channels.
- Remote trip and silence inputs.
- LED local alarm annunciation.
- All field wiring supervised per NFPA.
- Ability to provide outputs of 10 amps for each appliance circuit, utilizing the Allestec 800-1537 relay module.

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ALARM module

CE

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current excluding appliances:	30mA quiescent, 90mA maximum
Relay outputs:	Horn and Strobe relay output relays fused at 2 amps each, 24 VDC. Output relays are sealed and contain an inert Argon gas.
Alarm mode:	Utilizes reverse polarity on alarm, supplying 24 VDC to the appliances

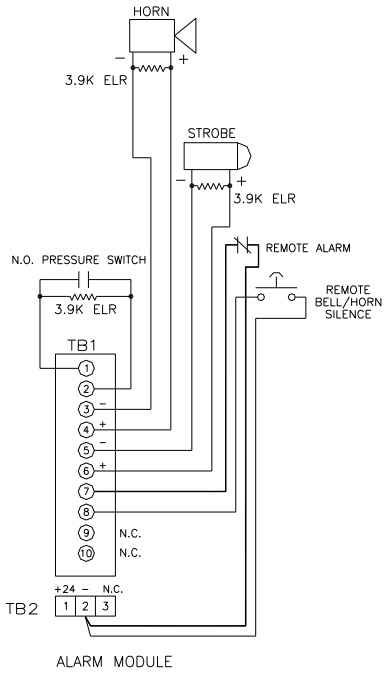
MECHANICAL

Size:	1.04”W X 3.46”H X 6.4”D
Weight:	3.8 ounces

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

PART NUMBER	DESCRIPTION
800-1442-36	Alarm Module
800-1211	End of line resistors (3 supplied) - may not be required on all appliances
800-1186	System manual



TYPICAL WIRING

Model 800-DEV36

ONGUARD®

800 System

Modular Special Hazard Safety Controls

The Allestec model 1760 Relay Module allows additional relay functions to assist the available outputs of the 800 panel. Three relays can be configured to change state when a certain condition occurs within the panel. Two relays are directed to the general alarm module, while one relay is retained for system faults.

Relays can be configured for latching or non-latching and failsafe operation. An LED is associated with each of the three relays. The LED is illuminated only when a relay changes state.

A sonalert is provided that emits a chirping sound whenever a relay changes state. The sonalert can be silenced while a relay remains activated.

FEATURES

- Three system relays available for various alarm conditions
- Relays are SPDT; all three contacts for each relay are accessible
- Audible alarm sounds when any of the three relays change state
- An LED indicates which relay is activated
- Optional external reset available

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RELAY module

CE

SPECIFICATIONS

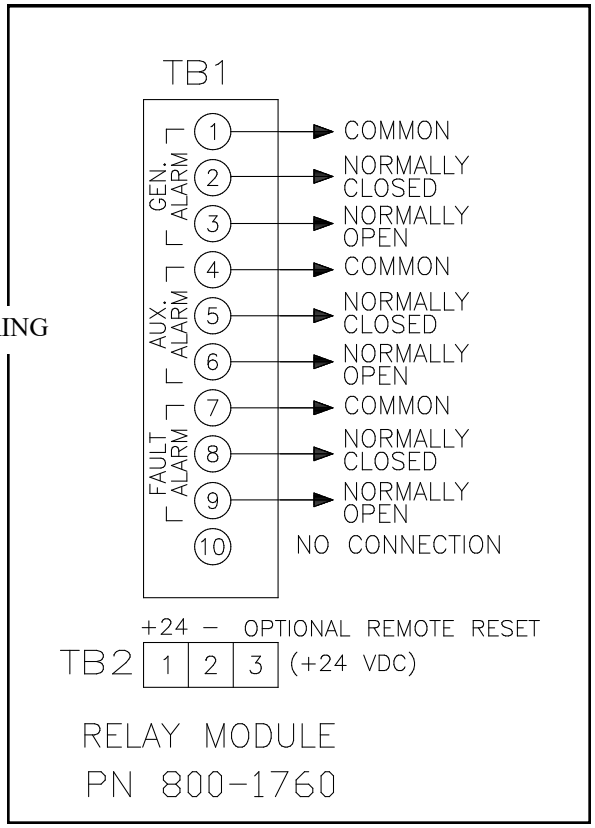
ELECTRICAL	
Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current:	20mA quiescent, 90mA alarm
Dry relay outputs: General, auxiliary, fault relays	5 amps, 30 VDC resistive, 250 VAC Output relays are sealed and contains an inert gas Relays are form C configuration

MECHANICAL	
Size:	1.04”W X 3.46”H X 6.4”D
Weight:	3.7 ounces

ENVIRONMENT	
Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

PART NUMBER	DESCRIPTION
800-1760	Relay Module
800-1186	System manual

TYPICAL WIRING



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800 System

Modular Special Hazard Safety Controls

The Allestec model 1443D Release Module can accommodate a single or dual release application system. Conditions can be programmed to allow the reserve tank to extinguish if the main tank should fail or if the fire remains after the main tank discharges. Two independent time delays can be programmed into the module to control each discharge tank. Each solenoid circuit is rated at 24 VDC, 4 amps.

The module can be located into an inhibit mode so the system can be tested without activating the solenoids. Other features include the ability to program an abort switch to add 30 seconds to the existing module timing sequence or activate a solenoid on the release of the abort button.

Faults that are transmitted to the Fault Module include open solenoid circuit coil(s), open pressure line switch or open abort switch line.

An auxiliary relay is activated at the time of the main tank activation. This relay is a SPDT contact, selectable with a 5 amp rating.

FEATURES

- Direct replacement for the model 1443 Release Module
- Solenoid-driven system to allow for various agent releases
- Inhibit (disable) function allows system testing without activating the solenoids
- Ability to accommodate one or two release tanks
- Automatic backup mode protects against post-ignition occurrence
- Abort and pressure switch can be optional accessories
- Microprocessor is fully programmed through the two membrane switches
- Non-volatile memory storage of configuration data
- Sonalert beeps at each second interval

REPRESENTED BY:

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RELEASE module

CE

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current:	70mA quiescent, 107mA alarm; no load
Release solenoids:	Two independent circuits source 24 VDC, 4 amps each
Auxiliary discharge relay:	Dry contact changes state on the first (main) release SPDT relay rated 5 amps, 30 VDC resistive, 250 VAC

RELEASE

Timed release:	Two independent adjustable digital timers: Main time is: .1 to 9.9 minutes, Reserve time is: .2 to 9.9 minutes

OTHER FUNCTIONS

Abort output: (delayed or on abort release)	24 VDC output during time countdown
Clock sync output:	1 Hz, 24 VDC during time countdown
External reset:	Open TB1-6 terminal from negative will reset timing sequence; input normally grounded

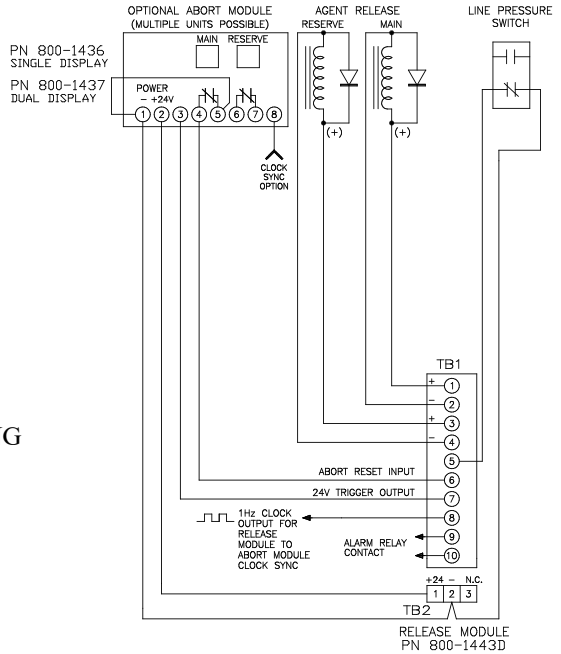
MECHANICAL

Size:	1.04”W X 3.46”H X 6.4”D
Weight:	4.0 ounces

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

PART	DESCRIPTION
800-1443D	Release Module - standard label
800-1186	System Manual



TYPICAL WIRING

ONGUARD®

800 System

Modular Special Hazard Safety Controls

The Allestec model 1820 Release Module can accommodate a single or dual release application system. Conditions can be programmed to allow the reserve tank to extinguish if the main tank should fail or if the fire remains after the main tank discharges. Two inde -pendent time delays can be programmed into the module to control each discharge tank. Each solenoid circuit is rated at 24 VDC, 4 amps.

The module can be located into an inhibit mode so the system can be tested without activating the solenoids. Other features include the ability to program an abort switch to add 30 seconds to the existing module timing sequence or activate a solenoid on the release of the abort button.

Faults that are transmitted to the Fault Module include open solenoid circuit coil(s), open pressure line switch or open abort switch line.

An auxiliary relay is activated at the time of the main tank activation. This relay is a SPDT contact, selectable with a 5 amp rating.

FEATURES

- Beckons the Status Module
- Solenoid-driven system to allow for various agent releases
- Inhibit (disable) function allows system testing without activating the solenoids
- Ability to accommodate one or two release tanks
- Automatic backup mode protects against post-ignition occurrence
- Abort and pressure switch can be optional accessories
- Microprocessor is fully programmed through the two membrane switches
- Non-volatile memory storage of configuration data
- Sonalert beeps at each second interval

REPRESENTED BY:

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RELEASE module EU

CE

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current:	70mA quiescent, 107mA alarm; no load
Release solenoids:	Two independent circuits source 24 VDC, 4 amps each
Auxiliary discharge relay:	Dry contact changes state on the first (main) release SPDT relay rated 5 amps, 30 VDC resistive, 250 VAC

RELEASE

Timed release:	Two independent adjustable digital timers: Main time is: .1 to 9.9 minutes, Reserve time is: .2 to 9.9 minutes

OTHER FUNCTIONS

Copy	Input for external fault monitoring
Clock sync output:	1 Hz, 24 VDC during time countdown
External reset:	Open TB1-6 terminal from negative will reset timing sequence; input normally grounded

MECHANICAL

Size:	1.04”W X 3.46”H X 6.4”D
Weight:	4.0 ounces

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

PART	DESCRIPTION
800-1820	Release Module - standard label
800-1186	System Manual

Refer to your integrator for correct field wiring installation.

ONGUARD®

800 System

Modular Special Hazard Safety Controls

Systems requiring an alternative method from other suppression agents can utilize the Allestec 800-2800 Cycle Release Module.

A pre-discharge time can be programmed into the module prior to allowing initiating of the mist cycle sequence. This delay allows for personnel evacuation, at which time the Alarm Module will be initiated.

The Cycle Release Module is designed to sustain a mist spray from a predetermined on/off cycle time. It then enters into a pause mode to assess the existence of a remaining fire or a post-ignition occurance, then acts upon the situation by implementing another water mist cycle.

During each cycle of operation, the display indicates the time remaining for the cycle, the cycle count and if the unit is in a pause mode. LEDs also indicate when the mist valve is in the open or closed position, as well as pause mode.

The module can be located into an inhibit mode so the system can be tested without activating the solenoids

Fault conditions are transmitted to the Fault Module and also trip a local fault relay.

FEATURES

- Programmable to cycle the water mist delivery system, including a pause mode
- Inhibit (disable) function allows system testing without activating the release solenoids
- Ability to accommodate one 24 VDC or two series 12 VDC release solenoids
- Microprocessor controlled and programmed through the panel two membrane switches
- Non-volatile data configuration storage
- Applications include oil refineries, industrial electrical equipment, flammable liquid pumping and storage facilities, co-generation power plants, etc.
- Conforms to NFPA 750.
- Accessible SPDT fault relay
- Remote reset input
- Auxiliary programmable CPU input for special conditions
- Sonalert beeps at each timing interval sequence

REPRESENTED BY:

ALLESTEC CORPORATION

810 RUSSELL PALMER ROAD KINGWOOD, TEXAS 77339
P.O. BOX 6092 KINGWOOD, TEXAS 77325
PHONE: 281-359-1519 FAX: 281-359-2085
ALLESTEC.COM

CYCLE RELEASE module

CE

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current:	75mA quiescent, 75mA alarm
Release output:	One circuit sources at 24 VDC, 3A hold, 6A trip
Fault relay:	Rated 5A, 30 VDC, 250 VAC

RELEASE

Pre-discharge:	Adjustable from 0 to 99 seconds
Mist on/off cycle:	Adjustable from 5 to 99 seconds
Cycle time counts (if fire is extinguished up to the first pause mode):	Adjustable from 1 to 9 counts
Pause mode timing:	Adjustable from .1 to 9.9 minutes

OTHER FUNCTIONS

Clock sync output:	1 Hz, 24 VDC during time countdown (optional)
External reset:	Provide momentary + 24 VDC to TB2-3 terminal

MECHANICAL

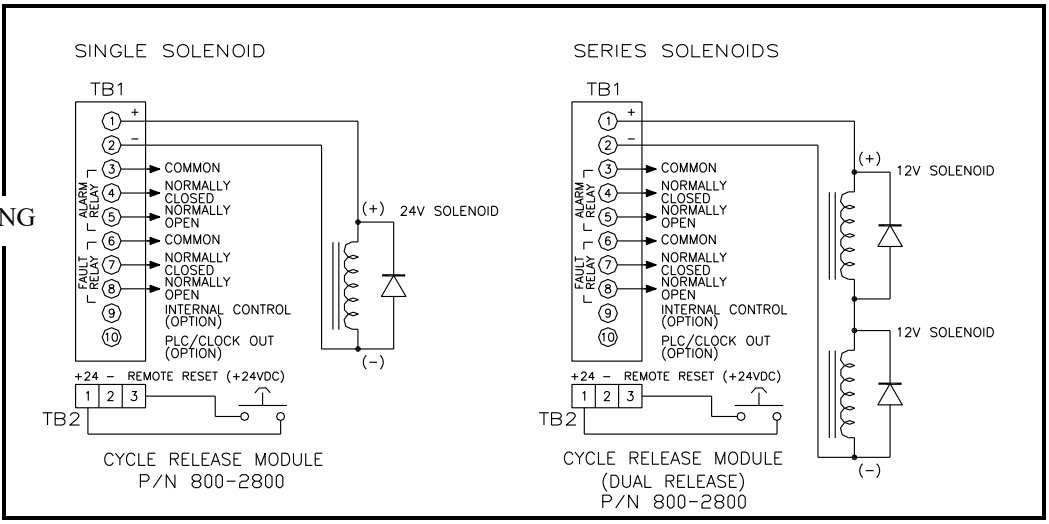
Size:	1.04”W X 3.46”H X 6.4”D
Weight:	4.0 ounces

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

PART NUMBER	DESCRIPTION
800-2800	Cycle Release Module
800-1186	System Manual

TYPICAL WIRING



ONGUARD®

800 System

Modular Special Hazard Safety Controls

The Allestec model 1457 NT420 Gas Module monitors industry standard 4-20 mA output signals, allowing a real time digital display of the input current. The NT420 is connected through the 800 panel motherboard buss and is able to beckon the Alarm, Fault and the Relay Modules. This module is capable of being utilized as a standalone module, or can be integrated with other Allestec modules.

Programming is completed though the two front panel membrane switches. A sonalert responds to each command as the parameters are entered. While in the program mode, all relay outputs are disabled and the fault circuit is active. For each alarm level, the respective relay output will energize and follow its latching mode as established in the program setup. The program mode is also capable of displaying the actual 4-20mA loop current in real time. This feature can be utilized for loop current diagnostics for system servicing.

An optional 4-20mA output is available for a recorder or similar type of measuring instrument. This output signal is an exact duplicate of the input signal and has no influence on the module calibration.

FEATURES

- Fully programmable from front panel
- No potentiometers to adjust
- Prevent sensor drift of display utilizing a dead band area
- Three levels of alarm set points with relating relays
- All user adjustments executed with two membrane switches
- Real time digital display from 0 to 100 %LFL, PPM, or % input current
- Real time digital display of 4-20mA current
- Optional 4-20mA recorder output
- Under range, over range, over current, fault annunciation
- 24VDC open collector fault output, failsafe mode
- Ability to beckon Allestec Alarm, Fault and Relay Module

- **DESIGN FEATURES**

- True analog to digital conversion
- True digital display representation of loop current
- Linear scale
- Integral microprocessor design
- Digital filter
- Display digit fluctuating inhibitor
- Memory retention with loss of power
- 100 milliseconds loop current sampling rate
- Peak hold of 4-20mA signal prevents display dither

REPRESENTED BY:

ALLESTEC CORPORATION

810 RUSSELL PALMER ROAD KINGWOOD, TEXAS 77339
P.O. BOX 6092 KINGWOOD, TEXAS 77325
PHONE: 281-359-1519 FAX: 281-359-2085
ALLESTEC.COM

GAS module

CE

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC power source
Operating current:	Quiescent with input = 4mA: 85mA Maximum alarm with input = 20mA: 130mA
Dry relay outputs:	5 amps, 30 VDC resistive, 250 VAC Output relay sealed and contains an inert gas Relays are selective for N.O. or N.C.
Sensor / transmitter output 24 VDC power:	Fused for 3 amps

DISPLAY

Red seven segment displays:	Low scale displays “ur” for under range, then -10 to 00 High scale displays 1H for 100, “Or” for over range and “OC” for over current
Dominant wavelength:	640nm
Segment height:	.3” high
Display LEDs:	Red - HIHI indicates high high alarm Red - HI indicates high alarm Orange - LO indicates low alarm Yellow - FAULT indicates fault condition

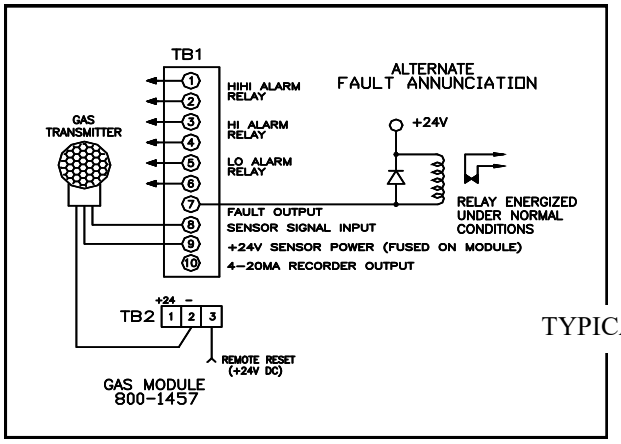
MECHANICAL

Size:	1.04”W X 3.46”H X 6.4”D
Weight:	4.2 ounces

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

PART NUMBER	DESCRIPTION
800-1457-1454	NT420 Gas detection module %LFL
800-1457-1489	NT420 Gas detection module PPM
800-1457-1490	NT420 Analog input module %
800-1186	System manual



TYPICAL WIRING

ONGUARD®

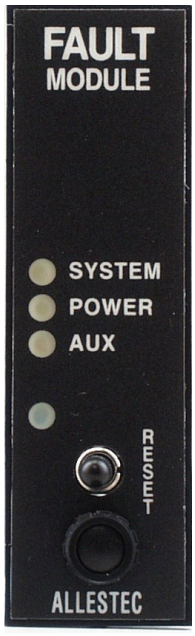
800 System

Modular Special Hazard Safety Controls

The Fault Module is a common system annunciator triggered by any faults in the system. All faults are displayed locally on each module but are also transmitted centrally to the Fault Module, sounding a sonalert. The sonalert can be silenced while determining the source of the fault. A fault will be noted with the system fault LED and de-energize the failsafe fault relay output.

A protection circuit monitors the power supply voltage for under or over voltage inputs. Should the power supply voltage deviate from its required specification, the system fault LED will illuminate and the sonalert will sound, followed by the relay changing state.

An auxiliary normally closed input is provided to monitor any dry contacts. If the contact is open, the auxiliary LED will illuminate and the sonalert will sound followed by the relay changing state.



FEATURES

- Monitors complete 800 panel
- Announces the removal of any module
- Announces any open fuses
- Fault relay output
- DC low and high voltage limit monitoring
- Auxiliary fault input connection
- Audible fault can be silenced
- All field wiring supervised per NFPA

REPRESENTED BY:

ALLESTEC CORPORATION

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ALLESTEC.COM

FAULT module

CE

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current:	31mA quiescent, 40mA maximum
Dry relay outputs:	5 amps, 30 VDC resistive Output relay sealed and contains an inert gas Relay is form C configuration

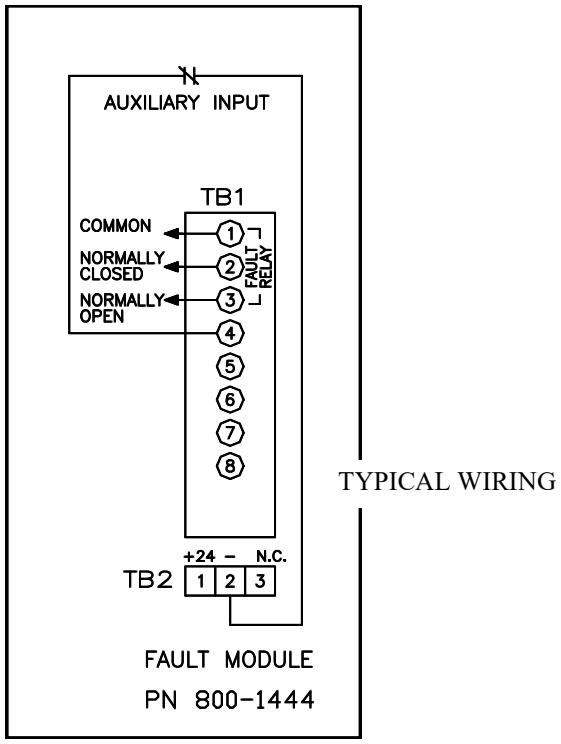
MECHANICAL

Size:	1.04”W X 3.46”H X 6.4”D
Weight:	3.1 ounces

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

PART NUMBER	DESCRIPTION
800-1444	Fault Module
800-1186	System manual



TYPICAL WIRING

ONGUARD®

800 System

Modular Special Hazard Safety Controls

The Allestec Abort Module is designed to be connected to the Model 800 fire panel and other fire panels requiring abort function. A standard 3-gang mounting stainless steel bezel, allows the unit to be placed in many different locations. Digital display remains blank until the module receives a 24 VDC start signal. LED digits are legible in bright daylight from a distance of 12 feet. Pressing the abort switch resets the display back to zero. When utilized with the Allestec Onguard model 800 panel, two abort options are available. While the release module is counting down, if the abort button is depressed before the countdown reaches 0, the discharge will be held until the button is released. The second options adds 30 seconds to the countdown when the button is depressed. A dual display option is available in installations set up for two timing events.

REPRESENTED BY:

FEATURES

- Audible sonalert during time count
- Power LED
- Small 3 gang size
- Optional dual display
- Available clock sync input
- Low power CMOS design
- Internal voltage regulation
- Aesthetic-enhanced design

APPLICATIONS

- Oil refineries
- Chemical plants
- Co-generating power plants
- Natural gas pumping stations
- Aircraft hangars
- Industrial

ABORT module

ALLESTEC CORPORATION

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PHONE: 281-359-1519 FAX: 281-359-2085
ALLESTEC.COM

SPECIFICATIONS

OPERATING VOLTAGE:	20-28 VDC
OPERATING CURRENT:	Primary Board: 18mA Quiescent, 105mA Maximum Secondary Board Option: 21mA Quiescent, 185mA Maximum
FUSE F1:	Primary Board: 125mA P/N 1394 Secondary Board Installed: 250mA P/N 1414
AUDIBLE:	Sonalert pulse 1 cycle per second during countdown Frequency: 3.8 Khz @ 75dB 1m
ENVIRONMENT:	Temperature Range: 0 degrees F - 150 degrees F Humidity: Non-condensing 0 - 95%
CONSTRUCTION:	Bezel: Stainless Steel Printed Circuit Board: 1/16” two ounce copper, FR-4 fiberglass, double-sided, plated through holes, solder
MOUNTING:	Standard 3 gang wall mount switch box

PART NUMBER	DESCRIPTION
800-1436	Single Display Abort Module
800-1437	Dual Display Abort Module
800-1186	System manual

NOTE: Refer to the Release Module, P/N 1443D for field wiring.

ONGUARD®

800 System

Modular Special Hazard Safety Controls

The model 800-1800 Status Module is a European Committee approved module that annunciates dedicated functions internal and external to the model 800 control panel.

The NORMAL LED remains on at all times until an input function occurs. Any time the NORMAL LED is turned off, the local relay will change state. The module relay is normally energized (failsafe) and changes state if power is removed from the module.

If the residing release module is placed into an inhibit mode, a command is issued from the release module to turn on the INHIBIT LED on the Status Module.

The DISCHARGE LED will turn on when the release module issues a first solenoid discharge command.

The NORMAL, INHIBIT and DISCHARGE channels each support dedicated outputs for supervised 24VDC field lamps. Any time the NORMAL panel LED turns off, the associated output turns off the field lamp. If the INHIBIT or DISCHARGE panel LED turns on, the associated outputs turn on. These outputs are rated 2A for each circuit. The external lamps utilized must conform to the specification of the module.

The Door LEDs are dedicated for two normally closed contacts. Each door contact turns on its respective LED when the circuit loop is opened. The door LEDs and its associated relay can be selected to latch or not to latch.

FEATURES

- Module relay changes state for any event
- Relay can be selected for N.O or N.C contacts
- Relay is configured for failsafe
- Relay is rated at 1A, 30VDC, .3A, 250VAC
- Different color LEDs illuminate for each function
- Audible tone announces an event occurrence
- Fault occurs if any supervised field wiring fails
- All field wiring supervised per NFPA requirement
- Refer to engineering sheet 800-1800 for more details

REPRESENTED BY:

ALLESTEC CORPORATION

810 RUSSELL PALMER ROAD KINGWOOD, TEXAS 77339
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ALLESTEC.COM

STATUS module

CE

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current:	45mA quiescent, 95mA alarm with 3.9K EOL resistor
Dry relay output:	1 amp, 30 VDC resistive, .3A, 250 VAC Output relay is sealed and contains an inert gas

MECHANICAL

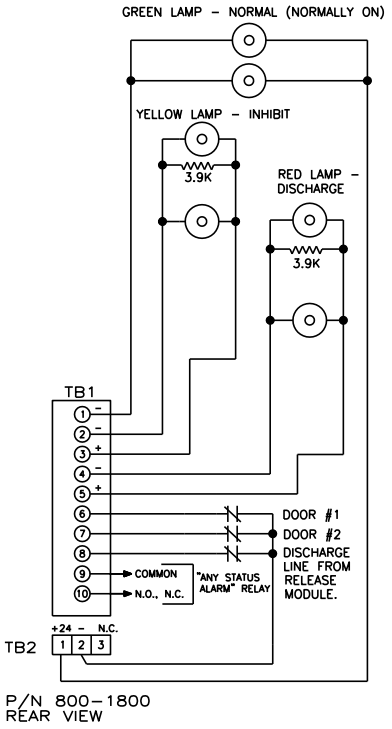
Size:	1.04”W X 3.46”H X 6.4”D
Weight:	4.0 ounces, 115 grams

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
RFI interference:	PER CE document: EN 61000-6-2, EN 61000-4-2 EN 61000-4-3, ENV 50204, EN61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 55011
Packaging and environmental exposure:	NEMA 1

PART NUMBER	DESCRIPTION
800-1800	Status Module designed for incandescent lamps
800-1800-1	Status Module designed for LED lamps
800-1211	End of line resistors, 2 supplied, 3.9K
800-1328	Module fuse (1 required) 100mA
800-1310	Normal, Inhibit, Discharge fuses (3 required) 2A

TYPICAL WIRING



NOTE:
For model 800-1800-1 replace the 3.9K resistors with 680 ohm.

ONGUARD®

800 System

Modular Special Hazard Safety Controls

The model 800-2040 Fault Module is a common system annunciator triggered by any faults in the model 800 control panel. All faults are displayed locally on each module but are also transmitted centrally to the Fault Module, sounding an audible local alarm. The alarm can be silenced while determining the source of the fault. The System Fault LED will turn on and the failsafe fault relay output will de-energize from its failsafe position.

A protection circuit monitors the 24VDC power supply voltage for under or over voltage inputs. Should the power supply voltage deviate from its required specification, the system fault LED will illuminate and the audible alarm will sound, followed by the relay changing state.

The Fault Module monitors two independent, normally closed contacts called Main Low Weight and Reserve Low Weight. Upon either input opening, their respective LED will turn on and latch. The fault relay will change state and the audible alarm will sound.

An auxiliary input is provided to monitor any normally closed dry contacts. If the contact is open, the auxiliary LED will illuminate and the audible beeper will sound, followed by the relay changing state.

FEATURES

- Monitors complete 800 panel
- Announces the removal of any module in the control rack
- Announces any open circuit power fuses
- Fault relay output
- 24VDC power input low and high voltage limit monitoring
- Auxiliary fault input connection
- Audible fault can be silenced
- All field wiring supervised per NFPA
- Wika weigh scales to be provided with digital indicator
- Module will provide surveillance of up to 30 CO2 cylinders

REPRESENTED BY:

FAULT module

CE

ALLESTEC CORPORATION

810 RUSSELL PALMER ROAD KINGWOOD, TEXAS 77339
P.O. BOX 6092 KINGWOOD, TEXAS 77325
PHONE: 281-359-1519 FAX: 281-359-2085
ALLESTEC.COM

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current:	75mA quiescent, 95mA maximum
Dry relay output contacts:	5 amps, 30 VDC resistive Output relay sealed and contains an inert gas Relay is form C configuration

MECHANICAL

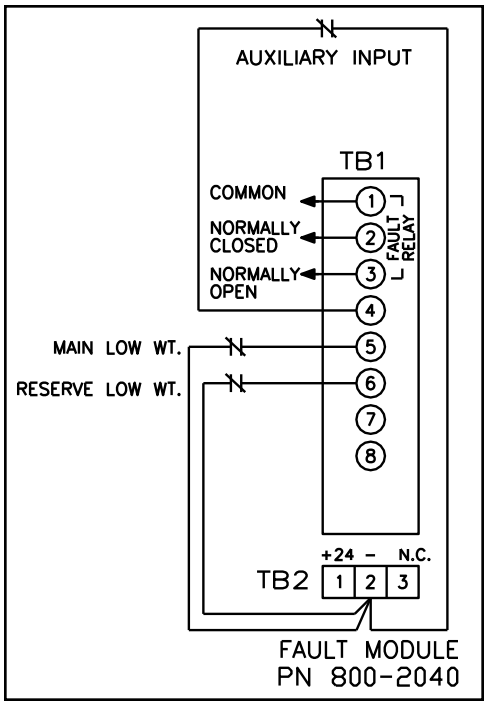
Size:	1.04”W X 3.46”H X 6.4”D
Weight:	3.1 ounces

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

PART NUMBER	DESCRIPTION
800-2040	Fault Module
800-1186	System manual

TYPICAL WIRING



ONGUARD®

800 System

Modular Special Hazard Safety Controls

The blank module is designed to occupy unused slots in the model series 800 rack assembly and can be located anywhere as described in the P/N 1185 operations manual. Two different styles of blank modules are available depending on the configuration of the installed modules. The blank modules occupy slots that would otherwise have an intelligent module located in the rack slot.

FEATURES

- Provides the ability to add future modules by removing the blank module from the rack assembly.
- Allows modules within the rack assembly to be located in different locations as determined by the designer.

REPRESENTED BY:

ALLESTEC CORPORATION

810 RUSSELL PALMER ROAD KINGWOOD, TEXAS 77339
P.O. BOX 6092 KINGWOOD, TEXAS 77325
PHONE: 281-359-1519 FAX: 281-359-2085
ALLESTEC.COM

BLANK module

Factory Mutual System

CE

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current:	N/A

MECHANICAL

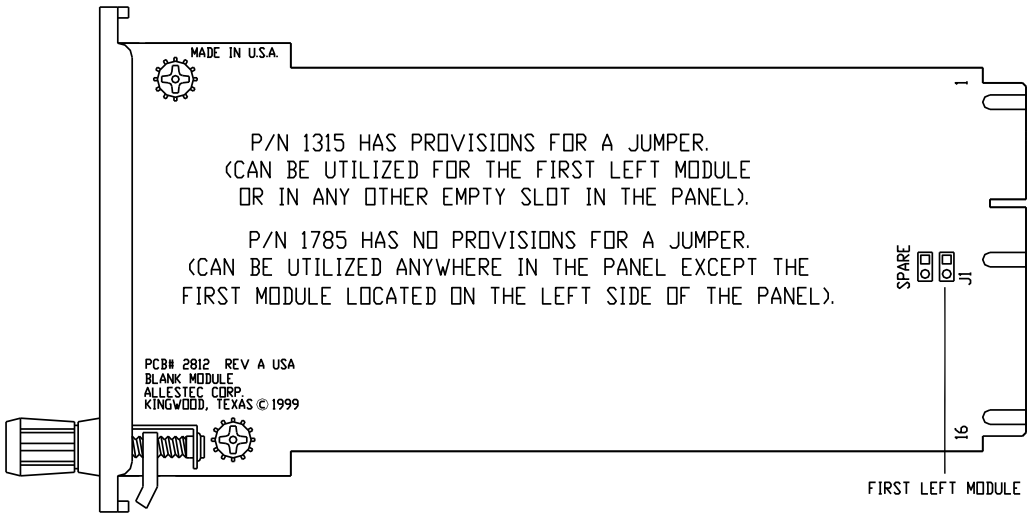
Size:	1.04”W X 3.46”H X 6.4”D
Weight:	2.5 ounces (71 grams)

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing
Packaging and exposure:	NEMA 1

PART NUMBER	DESCRIPTION
800-1315	Specified locations - Refer to the P/N 1185 operation manual
800-1785	Specified locations - Refer to the P/N 1185 operation manual

SPARE MODULE FOR EMPTY PANEL SLOT



ONGUARD®

800 System

Modular Special Hazard Safety Controls

The model 800-2040 Fault Module is a common system annunciator triggered by any faults in the model 800 control panel. All faults are displayed locally on each module but are also transmitted centrally to the Fault Module, sounding an audible local alarm. The alarm can be silenced while determining the source of the fault. The System Fault LED will turn on and the failsafe fault relay output will de-energize from its failsafe position.

A protection circuit monitors the 24VDC power supply voltage for under or over voltage inputs. Should the power supply voltage deviate from its required specification, the system fault LED will illuminate and the audible alarm will sound, followed by the relay changing state.

The Fault Module monitors two independent, normally closed contacts called Main Low Weight and Reserve Low Weight. Upon either input opening, their respective LED will turn on and latch. The fault relay will change state and the audible alarm will sound.

An auxiliary input is provided to monitor any normally closed dry contacts. If the contact is open, the auxiliary LED will illuminate and the audible beeper will sound, followed by the relay changing state.

FEATURES

- Monitors complete 800 panel
- Announces the removal of any module in the control rack
- Announces any open circuit power fuses
- Fault relay output
- 24VDC power input low and high voltage limit monitoring
- Auxiliary fault input connection
- Audible fault can be silenced
- All field wiring supervised per NFPA
- Wika weigh scales to be provided with digital indicator
- Module will provide surveillance of up to 30 CO2 cylinders

REPRESENTED BY:

FAULT module

CE

ALLESTEC CORPORATION

810 RUSSELL PALMER ROAD KINGWOOD, TEXAS 77339
P.O. BOX 6092 KINGWOOD, TEXAS 77325
PHONE: 281-359-1519 FAX: 281-359-2085
ALLESTEC.COM

SPECIFICATIONS

ELECTRICAL

Approved operating voltage:	20 - 28 VDC redundant power sources
Operating current:	75mA quiescent, 95mA maximum
Dry relay output contacts:	5 amps, 30 VDC resistive Output relay sealed and contains an inert gas Relay is form C configuration

MECHANICAL

Size:	1.04”W X 3.46”H X 6.4”D
Weight:	3.1 ounces

ENVIRONMENT

Ambient operating temperature:	0 degrees F to 150 degrees F, -17 degrees C to 65 degrees C, 90% humidity non-condensing

:

Packaging and exposure:	NEMA 1

PART NUMBER	DESCRIPTION
800-2040	Fault Module
800-1186	System manual

TYPICAL WIRING