Honeywell | Conventional Control Panels

Flex GF506R

Agent Releasing

General

The Flex GF506R is a six-zone FACP used for single and dual hazard agent releasing applications. The Flex GF506R provides reliable fire detection. It also offers signaling and protection for commercial, industrial, and institutional buildings that require agent-based releasing. The Flex GF506R is compatible with System Sensor's i^3 detectors.

The i^3 detectors are conventional smoke detectors that transmit a maintenance trouble signal to the FACP that indicates the need for cleaning. It also transmits a supervisory 'freeze' signal when the ambient temperature falls below the detector rating of approximately 45°F (7.22°C). In addition, the Flex GF506R control panel is compatible with the following conventional input devices:

- two-wire and four-wire smoke detectors
- pull stations
- waterflow devices and tamper switches
- other normally-open contact devices

For a complete listing of compatible devices, refer to the Gamewell-FCI Device Compatibility Document, P/N: 52195.

There are four outputs that are programmable as NACs (Notification Appliance Circuits) or releasing circuits. Three programmable Form-C relays (factory programmed for Alarm, Trouble, and Supervisory), and the 24 VDC special application resettable and non-resettable power outputs are included on the main circuit board. The Flex GF506R supervises all wiring, AC voltage, battery charger, and battery level. The activation of a compatible smoke detector or any normally open fire alarm initiating device will do the following:

- Turn on audible and visual signaling devices
- Display alarm information on the panel's LCD
- Activate the FACP alarm relay
- Light an indicator
- Sound the piezo sounder at the FACP
- Operate an optional module used to notify a remote station or initiate an auxiliary control function



Flex GF506R

FEATURES & BENEFITS

- Listed under UL Standard 864, 9th Edition
- IBC Seismic Certified
- Designed for Agent Releasing NFPA Standards: 12, 12A, 12B, 2001 and 2010
- Disable/Enable control per input zone and output zone
- Extensive transient protection
- Dual hazard operation
- Adjustable pre-discharge, discharge and waterflow delay timers
- Cross-zone (double-interlock) capability
- Six programmable Style B (Class B) IDCs (Initiating Device Circuit) with optional Class A wiring
- System Sensor i^3 series detectors compatible
- Four programmable Style Y (Class B) output circuits - (special application power) with Style Z (Class A) option
- Strobe Synchronization:
  - System Sensor
  - Cooper-Wheelock
  - Gentex
  - Faraday
  - Amseco
- Three programmable Form-C relays
- 7.0 amps total 24 VDC output current
- Resettable and non-resettable output power
- Built-in Programmer
- ANN-BUS for connection to optional (up to 8 total of any of the following):
  - GFANN-80 Remote LCD Annunciator
  - GFANN-S/PG Printer Module
  - GFANN-RLY Relay Module
  - GFANN-LED Annunciator Module
- 80-character LCD display (backlit)
- Real-time clock/ calendar w/daylight savings time control
- History Log with 256 event storage
- Piezo sounder for alarm, trouble and supervisory
- 24 volt DC operation
- Low AC voltage sense
- Outputs Programmable for the following:
- Releasing circuits or NACs
- NACs programmable for the following:
  - Silence Inhibit
  - Auto-Silence
  - Strobe Synchronization
  - Selective Silence (horn-strobe mute)
  - Temporal or Steady Signal
- Silenceable or Non-silenceable
- Release Stage Sounder
- Extensive transient protection
- Automatic battery charger with charger supervision
- Optional Dress Panel DP-51050 (red)
- Optional Trim Ring TR-CE (red) for semi-flush mounting the cabinet
- Optional CAC-5X Class A Converter Module for Outputs and IDCs
- Optional 4XTMF Municipal Box Transmitter Module
- Optional Digital Alarm Communicators (411, 411UD, 411UDAC)

Programming and Software

The programming software offers the following features:

- Custom English labels (per point) may be manually entered or selected from an internal library file.
- Programmable Abort operation.
- Three programmable Form-C relay outputs.
- Pre-programmed and custom application templates.
- Continuous fire protection during online programming at the front panel.
- Program Check automatically catches common errors not linked to any zone or input point.

User Interface

The user interface features are listed below:

- Integral 80-character LCD display with backlighting.
- Real-time clock/calendar with automatic daylight savings adjustments.
- ANN-Bus for connection to remote annunciators.
- Audible or silent walk test capabilities.
- Piezo sounder for alarm, trouble, and supervisory.

Controls and Indicators

The panel provides the following LED Indicators:

- Fire Alarm (red)
- Supervisory (yellow)
- Trouble (yellow)
- AC Power (green)
- Abort (yellow indicator)
- System Reset (lamp test)
- Drill
- Alarm Silenced (yellow)
- Discharged (red)
- Pre-discharge (red indicator)
- Control Buttons
- Acknowledge
- Alarm Silence

AC Power – TB1

The AC Power -TB1 for each panel is listed below:

- **GF506R:** 120 VAC, 50/60 Hz, 2.3 amps
- Wire size: minimum #14 AWG (2.0 mm^2) with 600V insulation.
- Supervised, non power-limited

Battery (sealed lead acid only) – J12:

The Battery (for sealed lead acid only)-J12 specifications are listed below.

Maximum Charging Circuit - Normal Flat Charge: 27.6 VDC @ 1.4 amp. Supervised, non power-limited.

Maximum Charger Capacity: 26 Amp Hour battery (two 18 Amp Hour batteries can be housed in the FACP cabinet. Larger batteries require separate battery box such as the BB-26 or BB-55).

Minimum Battery Size: 7 Amp Hour

Initiating Device Circuits - TB4 and TB6

The Initiating Device Circuits for TB4 and TB6 specifications are listed below.

- Alarm Zones 1 - 5 on TB4
- Alarm Zone 6 on TB6
- Supervised and Class 2 Power-Limited circuitry
- Style B (Class B) wiring with Style D (Class A) option

Normal Operating Voltage: Nominal 20 VDC

Alarm Current: 15 mA minimum

Short Circuit Current: 40 mA max

Maximum Loop Resistance: 100 Ohms

End-of-Line Resistor: 4.7KOhms, 1/2 watt (PN 71252)

Standby Current: 4 mA

For a list of compatible devices, refer to the Gamewell-FCI Device Compatibility Document, P/N: 52195.

Notification Appliance and Releasing Circuit(s) - TB5 and TB7

The notification appliance and releasing circuits for TB5 and TB7 specifications are listed below.

- Four Output Circuits
- Style Y (Class B) or Style Z (Class A) with optional converter module
- Notification Appliance and Releasing Circuit(s)-Strobe synchronization
- Special Application power
- Supervised and Class 2 Power-Limited circuitry

Normal Operating Voltage: Nominal 24 VDC

Maximum Signaling Current: 7.0 amps (3.0 amps max. per NAC)

End-of-Line Resistor: 4.7KOhms, 1/2 watt (PN71252)

Max. Wiring Voltage Drop: 2 VDC

For a list of compatible devices, refer to the Gamewell-FCI Device Compatibility Document, P/N: 52195.

Form-C Relays - Programmable - TB8

The Form-C Relays for TB8 specifications are listed below.

- Relay 1 (factory default programmed as Alarm Relay).
- Relay 2 (factory default programmed as fail-safe Trouble Relay).
- Relay 3 (factory default programmed as Supervisory Relay).

Relay Contact Ratings: 2 amps @ 30 VDC (resistive)
2 amps @ 30 VAC (resistive)

Auxiliary Trouble Input – J6

The Auxiliary Trouble Input is an open collector circuit which can be used to monitor external devices for trouble conditions. It can be connected to the trouble bus of a peripheral, such as a power supply, which is compatible with open collector circuits.

Special Application Resettable Power - TB9

The Special Application Resettable Power - TB9 specifications are listed below.

- **Operating Voltage:** Nominal 24 VDC
- **Maximum Available Current:** 500 mA - appropriate for powering 4-wire smoke detectors (see note 1).
- Class 2 Power-Limited circuitry

For a list of compatible devices, refer to the Gamewell-FCI Device Compatibility Document, P/N: 52195.

NOTE 1: Total current for resettable power, non-resettable power and Output Circuits must not exceed 7.0 amps.

Special Application Resettable or Non-resettable Power - TB9

The Special Application Resettable or Non-resettable Power - TB9 specifications are listed below.

- **Operating Voltage:** Nominal 24 VDC
- **Maximum Available Current:** 500 mA (see Note 1)
- Class 2 Power-Limited circuitry
- Jumper selectable by JP31 for resettable or non-resettable power.

For a list of compatible devices, refer to the Gamewell-FCI Device Compatibility Document, P/N: 52195.

Ordering Information

GF506R: Six-zone, 24 volt Agent Release Control Panel (includes backbox, power supply, technical manual, and a frame & post operating instruction sheet) for single and dual hazard agent releasing applications.

CAC-5X: Class A Converter Module can be used to convert the Style B (Class B) Initiating Device Circuits to Style D (Class A) and Style Y (Class B) Output Circuits to Style Z (Class A).

Note: Two Class A Converter Modules are required to convert all four Output Circuits and six Initiating Device Circuits.

4XTMF: Transmitter Module provides a supervised output for the local energy municipal box transmitter and the alarm and trouble reverse polarity. It includes a disable switch and disable trouble LED.

GFANN-80: LCD Annunciator is a remote LCD annunciator that mimics the information displayed on the FACP LCD display. The recommended wire type is unshielded.

GFANN-LED: Annunciator Module provides three LEDs for each zone: Alarm, Trouble and Supervisory. Ships with enclosure (red and black enclosures available; refer to P/N: DF-60241).

GFANN-RLY: Relay Module, which can be mounted inside or outside the cabinet, provides 10 programmable Form-C relays.

DP-51050: Dress panel (red) is available as an option. The dress panel restricts access to the system wiring while allowing access to the membrane switch panel.

TR-CE: Trim-ring (red) is available as an option. The trim-ring allows semi-flushing mounting of the cabinet.

BB-17F: Battery box, holds up to two 18 Amp Hour batteries and the CHG-75.

PRN-6: UL-Listed compatible event printer. Dot-matrix, tractor-fed paper, 120 VAC.

PRT/PK Cable: Programming cable. Used to update the FACPs Flash firmware. (It also requires an RS-485 to RS-232 converter).

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Flex GF506R Technical Specifications

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SYSTEM SPECIFICATIONS

System Capacity: Annunciators 8
Electrical Specifications:
Flex GF506R:
(FLPS-7 Power Supply): 120 VAC, 50/60 Hz, 2.3 amps
Wire size: minimum 14 AWG (2.0 mm²) with 600 V insulation, supervised, non power-limited
Cabinet Specifications:
Door :
Dimensions: 19.26" H x 16.82" W x 0.72"
(48.92 H x 42.73 W x 1.82 D cm)
Backbox: 19.00" H x 16.65" W x 5.25" D
Dimensions: (48.26 H x 42.29 W x 13.34 D cm)
Trim Ring (TR- CE):
Dimensions: 22.00" high x 19.65" wide
(55.88 H x 49.91 W cm)
Shipping Specifications:
Dimensions: Height 20.00" **(50.80cm)**
Width 22.50" **(57.15cm)**
Depth 8.50" **(21.59cm)**

TEMPERATURE AND HUMIDITY RANGES

This system meets NFPA requirements for operation at 0° –49°C/32° – 120°F and at a relative humidity 93% ± 2% RH (non-condensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15° – 27°C/60° – 80°F.

NFPA STANDARDS

The Flex GF506R complies with the following NFPA Fire Alarm Systems requirements:
- NFPA 12 CO2 Extinguishing Systems (High Pressure Only)
- NFPA 12A Halon 1301 Extinguishing Systems
- NFPA 12B Halon 1211 Extinguishing Systems
- NFPA 72 National Fire Alarm and Signaling Code
- NFPA 2001 Clean Agent Fire Extinguishing System
- NFPA 2010 Standard for Fixed Aerosol Fire-Extinguishing Systems

STANDARDS

The Flex Series, GF506D panel is designed to comply with the following standard:

UL Standard: S624

AGENCY LISTINGS AND APPROVALS

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

UL: S624

FM Approved

CSFM: 7165-1703: 0171

The VMC Group, Reference Certificate of Compliance: VMA-45894-02C (Revision 1)

ISO 9001 Certification

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This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

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