



by Honeywell

600 Series IdentiFlex 650 with SmartScan™

Description

The IdentiFlex 650 (IF654/658) with SmartScan™ is a full-featured Fire Alarm Control Panel (FACP) to monitor and control both analog intelligent addressable devices and conventional hard-wired zones, providing maximum application flexibility. It is easily adapted to a new or retrofit installation, and has all the power and features to handle projects of any size and complexity, providing up to 3168 analog addressable points plus 96 conventional circuits.

With the addition of a SmartLink™ network, the IdentiFlex 650 system can include multiple IF650s or other 600 Series fire alarm panels. The interactive operator's display uses LED prompting for easy user operation and programming. The alphanumeric display and keypad simplify field programming. Gamewell-FCI's SmartProgram II can be used to program the IF650 with a PC.

The IdentiFlex 650 has all the features of today's most advanced life safety systems. Integration of analog and hard-wired circuits allows the system engineer to customize the control panel based on the application. The CPU automatically senses system configuration to ensure that modules are correctly positioned to speed installation and maintenance.

IdentiFlex 650 software allows the system to be customized to specific applications, such as cross-zoning and alarm verification.

Front-panel construction is designed to allow routine maintenance of the system without disturbing the I/O modules. Multiple levels of password protection prevent unauthorized use. The cabinet is designed with terminal strips for ease of installation and service.

Operator's Display

The IdentiFlex 650 operator's display has all the necessary keys and annunciation points to maintain and monitor the system. Alarm, Supervisory and Trouble conditions are all indicated on the operator's display by dedicated LEDs and the internal sounder. The Acknowledge, Reset, and Signal Silence keys are easily found on the display.

Analog Addressable Control Panel



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IF650SS

Features

- Analog/addressable and conventional input circuits.
- SmartScan™ protocol-99 detectors and 99 devices per loop.
- SmartStart™ self-programming logic.
- Fully modular.
- 160-character, four-line display.
- One to 16 Signal Line Circuits (SLC) for up to 3168 analog points.
- Automatic default response for increased survivability.
- 1000-event history log.
- Digital SLC protocol.
- PC or front-panel programming.
- Password protected.
- Serial annunciator, remote display, and remote printer options.
- One-man, selectable-input walk test.
- Automatic drift compensation.
- Coded signaling.
- Day/night mode settings.
- Approved for Supervisory Service.
- Optional UDACT.
- Adjustable sensor sensitivity and temperature settings.
- SmartLink™ network compatible.

An ISO 9000-2000 Company



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Operator's Display (Continued)

The Reset key returns the control panel to idle mode after an alarm condition has been cleared. Trouble conditions that have been cleared will automatically return the control panel to idle mode when the problem has been corrected. Trouble conditions that have been acknowledged will resound the internal sounder if the condition is not corrected within a programmed time period.

The Signal Silence key deactivates notification appliances. This function can be modified by user programming to operate only after a specified time period.

There are three additional programmable switches available to control application-specific operations. Keys for programming and bypass functions, along with LEDs for active and trouble conditions, are provided for the City Connection, and two signal circuits which are part of the Common Control section.

Other Panel/System Components

The IF650 **COMMON CONTROL SECTION** comprises the heart of the system. The common control section houses the main CPU and all system memory as well as providing local and remote communications and supervision. The common control contains the common system relays, two signal circuits, city tie, and optional EIA-232 port. All interaction with the common control section is through the operator's display panel. Four relay circuits control auxiliary functions. The relays, rated at 10 Amps, are controlled by the main CPU. Two 24 VDC notification appliance circuits (NAC) are provided. The NACs can provide a steady or coded output. All circuits are power-limited per NEC 760 and UL Standard 864.

The IF650 SmartScan™ **ANALOG INTERFACE MODULE** (SSM-2/2E and SSM-4) occupies one bay and has from two to four circuits that can monitor and control up to 198 addressable/analog devices each for a total of 792 points per bay. Gamewell-FCI IF650 systems can be configured for up to 3168 points. The analog interface module has a dedicated microprocessor which simultaneously communicates with the connected field devices and the main CPU. This feature allows the IF650 to maintain maximum communications speed throughout the system. Analog/addressable circuits can be wired as non-polarized in Style 4, 6, or 7. The communications protocol provides for alarm verification per detector, detector adjustability and compensation, adjustable analog heat detector range, circuit isolation, and priority interrupts. Priority interrupts allow contact-type devices such as manual fire alarm stations to interrupt the polling cycle and transmit their addresses at any time during a polling sequence. The SmartScan™ digital protocol allows the IF650 to operate on most types of field wiring, greatly expanding its use in retrofit applications (consult Gamewell-FCI Technical Support for specific wiring requirements).

The **CONVENTIONAL INPUT MODULE** (CIM-8) occupies one bay and provides eight hard-wired input circuits for monitoring conventional detectors and contact-type devices. The CIM-8 monitors and reports each circuit's analog status to the CPU as it distinguishes between detectors and contact devices and determines if two or more detectors are in alarm. Each input module uses one slot in the MPU bus and is supplied with its own display module. The display module provides LED annunciation of alarm and trouble conditions and has a switch (per circuit) for programming and bypass functions. The display has space for user-defined custom labels for each circuit. Beyond normal alarm and supervisory functions, the input circuits can be programmed for Remote Acknowledge, Reset, Signal Silence, and Release Abort switches. Circuits can be wired for Style B, D, and E service and are capable of monitoring normally-closed devices.

The 600 Series **UNIVERSAL SIGNAL MODULE** (USM-8) occupies one bay and is a multifunctional eight-circuit output module. USM-8 modules communicate via the MPU bus and require one expansion slot each. The USM can be configured as 24 VDC signaling circuits. Modules are programmed in two-circuit increments, making it possible to perform all four functions with a single module. Signal circuits provide steady or coded outputs. All circuits are power-limited per NEC 760 and UL 864. Signal circuits can be wired in either Style Y or Z. Signal modules are supplied with their own display that provides LED annunciation of activation and trouble conditions and has a switch (per circuit) for programming and bypass functions. The display has space for user-defined custom labels for each circuit.

The 600 Series **POWER SUPPLY** (MPS-8) furnishes system operating and signaling power. The supply is equipped with a battery charger for maintaining the secondary power source. The power supply is monitored by the main CPU to ensure that adequate power levels are maintained. The power supply design allows for high efficiency while providing precise power output. The battery charger is capable of operating with lead-acid batteries and maintaining up to 50 AH batteries. Multiple auxiliary power supplies (APS-8) may be added to the system when additional power is required.

The 600 Series **RELAY MODULE** (RM-8) supplies eight NO/NC relays for control of auxiliary functions. The relays are controlled by the main CPU and are fully programmable. Each position on the MPU bus can accommodate a relay module. The relays are rated at 10 Amps and each is provided with a feedback point for positive confirmation of activation. Like all 600 Series expansion modules, the relay module reports activation.

The 600 Series **BUILDING CONTROL MODULE** (BCM-8) provides an interface between the fire alarm and HVAC systems. Relays (rated at 10 A) are accompanied by feed-

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back points for positive confirmation of the programmed action. The BCM is available in eight-circuit modules that are monitored and controlled by the MPU bus which can monitor and control one expanded (i.e., eight-circuit) BCM per position. The display for the BCM provides LEDs for annunciation of relay state or feedback, and windows for user-defined custom labeling. In addition, the display for the BCM comes with a three position ON/OFF/AUTO switch per circuit for manual override of the programmed automatic functions.

Although the common control module is equipped with a city tie circuit which is suitable for most applications, an optional four-circuit **CITY TIE MODULE** (CTX-4) has been developed for applications that require multiple connections. The city tie module connects to the MPU bus and is supplied with a display module. The CTX-4 can also be used for applications requiring a polarity-reversal output.

There are two **SYSTEM HOUSING CONFIGURATIONS** available for the IF650 control panel. The four-bay cabinet (IF654) will accommodate four 600 Series modules in addition to the common control, power supply, and batteries. An eight-bay cabinet (IF658) will accommodate eight 600 Series modules in addition to the common control, power supply and batteries. The housings are designed with ample wiring space, conduit knockouts, and mounting options. The unit's dead-front design allows all operation, programming, and user interface to take place without exposing the system modules or field wiring. Field-wiring terminals are mounted directly to the backbox for ease of installation and service. Modules can be removed for servicing without disturbing field wiring.

Applications

The Gamewell-FCI IdentiFlex 650 Analog Addressable Control Panel is designed for any project that require state-of-the-art life safety systems. The embedded CPU offers users unrivaled reliability with flexibility and value.

The IF650 control panel is designed to incorporate the SmartScan™ analog addressable sensors into an integrated life safety system which will meet today's most stringent requirements.

Addressable input-interface devices provide the means to communicate with cost-effective conventional devices in areas that do not require analog sensors.

Addressable control-output devices serve as the interface between the analog circuits and building functions. The outputs are controlled via Control-by-Event software and can be programmed to respond to any event. The control devices can also be used as supervised remote signal circuits.

The IF650's optional EIA-232 output expands the system's display and control capability.

Serial annunciators can be added to display system activity and control. The serial annunciator drivers provide the interface to graphic annunciators.

An alphanumeric display (RAN2-RCS) can also be used for remote status and control. The alphanumeric display is designed to communicate over the serial communications network. It features a 160-character display and provides remote reset/acknowledge/silence keys. See RAN/SAN data sheets CS-2025 and CS-2027 for complete annunciator details.

The IF650 communicates with an EIA-232 printer either locally or remotely for documentation of system activity. The printer interface accepts serial communications from the control panel and provides a parallel output to the printer.

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Specifications

Common Control:

Standby Current: 0.275A
Alarm Current: 0.407A plus signaling circuit power, plus 0.002A for master box, or plus 0.022A for reverse-polarity.
Input Power: 120 VAC, 2.0A

Auxiliary Output:

S+/S-, A+/A-: 24 VDC, 2.0A combined maximum
Common Relays: 10A @ 30 VDC, or 250A VAC
Signaling Circuits: 24 VDC nominal @ 2.0A per circuit

Panel Dimensions:

Four-bay Cabinet: 37.2" H x 24.0" W x 6.0" D (94.5 H x 60.96 W x 15.2 D cm)

Eight-bay Cabinet: 52.5" H x 24.0" W x 6.0" D (133.4 H x 61.0 W x 15.2 D cm)

Battery Capacity: 50 AH

Battery Storage Dimensions:

Standard Cabinet: 8.0" H x 14.25" W x 6.0" D (20.32 H x 36.2 W x 15.2 D cm)

Relative Humidity: 93% non-condensing
Temperature Rating: 32°F – 120°F (0°C – 49°C)

Ordering Information

Model

IF654

Description

IdentiFlex 650 base analog/addressable system, consisting of the following components:

- IF650 common control including:
 - Main CPU
 - IF650 front display with LCD alphanumeric display
 - Bus driver module
 - Common system relays
- Two (2) NAC circuits and ribbon cables
- MPS-8 main power supply
- Four-bay cabinet assembly
- Supports up to 3168 points

IF658

IdentiFlex 650 base analog addressable system, consisting of the following components:

- IF650 common control including:
 - Main CPU
 - IF650 front display with LCD alphanumeric display
 - Bus driver module
 - Common system relays
- Two (2) NAC circuits and ribbon cables
- MPS-8 main power supply
- Eight-bay cabinet assembly
- Supports up to 3168 points.

SSM-2

Two (2) SLC SmartScan™ analog addressable SLC cards, 99 detectors and 99 devices per SLC.

Note: Must be ordered separately, not included with IF650.

SSM-2E

Two (2) SLC Expander Modules plugs into SSM-2 to expand SSM-2 from 2 to 4 SmartScan™ SLC.

Note: Must be ordered separately, not included with IF650 or SSM-2.

SSM-4

Four (4) SLC Module, consists of SSM-2, SSM-2E, and all associated hardware

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IdentiFlex 650 Installation/Operating Manual.

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