

# Farenhyt

## IFP-1000/IFP-1000HV

The IFP-1000 and IFP-1000HV are intelligent analog/addressable fire alarm control panels (FACPs). The basic IFP-1000 system has one signal line circuit (SLC) loop that supports up to seven 5815XL signal line circuit expanders. The IFP-1000HV offers the same functionality and features as the IFP-1000 but is configured for 240 VAC operation.

IFP-1000/HV has six on-board Flexput™ circuits that can be configured for auxiliary power, notification outputs, or for conventional smoke detector inputs (Class A or Class B). The FACP also has a built-in, dual-line digital fire communicator, Form C trouble relay, and two programmable Form C relays. The firmware has powerful features such as detector sensitivity, day/night thresholds, drift compensation, pre-trouble maintenance alert, and calibration trouble alert.

IFP-1000/HV supports a variety of devices, including RA-1000 remote annunciator, 5824 serial/parallel printer interface module (for printing system reports), RPS-1000 intelligent power module, and Hochiki or Intelligent Device Protocol (IDP) devices.

## Features

- Built-in support for up to 127 Hochiki devices or 99 IDP detectors and 99 IDP modules, expandable to 1016 Hochiki devices or 792 IDP detectors and 792 IDP modules
- Uses standard wire—no shielded or twisted pair required
- Built-in UL listed digital communicator for remote reporting of system activity and system programming
- Central station reporting by point or by zone
- Supports Class B (Style 4) and Class A (Style 6 or Style 7) configuration for SLC, and SBUS
- Distributed, intelligent power
- Sensor sensitivity settings, day/night sensitivity setting and automatic drift compensation
- Flexput™ I/O circuits configurable for auxiliary power, notification outputs, or conventional smoke detector inputs. Notification circuits can be configured as Class A (Style Z) or Class B (Style Y). 2- and 4-wire smoke detectors can be configured as Class A (Style D) or Class B (Style B)
- Built-in annunciator with a backlit 80-character LCD display
- RS-485 bus provides communication to system accessories
- Built-in RS-232 and USB interface for programming
- Upload or download programming, event history, or detector status onsite or from a remote location using a PC and 5650/5651 Silent Knight Software Suite (SKSS)
- Improvements in SKSS delivers five times faster upload/downloads
- Built-in Form C trouble relay rated at 2.5 amps at 27.4 VDC
- Two built-in Form C programmable relays rated at 2.5 amps at 27.4 VDC
- Individual addressable devices can be tested
- SLC device locator can locate a single or multiple devices on a SLC loop
- System automatically tests addressable devices
- 13 preset notification cadence patterns (including ANSI 3.41) and four user programmable patterns

Analog/Addressable Fire Alarm  
Control System



MEA

429-92-E Vol. VI



IFP-1000

- Programmable to automatically display initial event first or display tally of system events
- Built-in synchronization for appliances from AMSECO, Gentex®, Faraday, System Sensor®, and Wheelock®
- Acknowledge function allows operator to keep track of event status
- Jumpstart® auto-programming
- Modular design
- Nonvolatile event history stores up to 1000 events
- 125 software zones and 250 output groups
- 6 amp power supply and maximum charging capacity of 35 amp hours (An additional cabinet enclosure is required for batteries in excess of 18 amp hours)
- Programmable date setting for Daylight Saving Time
- Plex-1 door option combines a dead front cabinet door with a clear window, limiting access to the panel while providing single button operation of the reset and silence functions



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KNIGHT

by Honeywell

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## Installation

The IFP-1000/HV can be surface or flush mounted.

## Compatibility

The IFP-1000/HV SLC supports multiple device types of the same protocol:

- Hochiki
- IDP

You cannot mix Hochiki and IDP devices on a FACP. However, any combination of addressable devices of the same protocol can be used on the IFP-1000/HV.

## Specifications

### Physical

Flush Mount Dimensions: 14.5"W x 24.75"H x 3.9"D  
(36.8 W x 62.9 H x 9.8 D cm)

Overall Dimensions: 16.2"W x 26.4"H x 4.2"D  
(40.6 W x 67 H x 11.8 D cm)

Weight: 28 lbs. (12.8 kg)

Color: Red

### Environmental

Operating Temperature: 32°F – 120°F (0°C – 49°C)

Humidity: 10% – 93% non-condensing

### Electrical

IFP-1000 Primary AC: 120 VRMS @ 50/60 Hz, 2.7A

IFP-1000HV Primary AC: 240 VRMS @ 50/60 Hz, 1.4A

Total Accessory Load: 6A @ 27.4 VDC power-limited

Standby Current: 140 mA

Alarm Current: 260 mA

Battery Charging Capacity: 7 to 35 AH

Battery Size: 18 AH max. allowed in control panel cabinet. Larger capacity batteries can be housed in RBB accessory cabinet.

### Flexput Circuits

Six circuits that can be programmed individually as:

Notification Circuits: 3A per circuit @ 27.4 VDC, power-limited

Auxiliary Power Circuits: 3A per circuit @ 27.4 VDC, power-limited

Initiation Circuit: 100 mA per circuit @ 27.4 VDC, power-limited

### Indicator Lights

General Alarm (Red): Flashes when in alarm; solid when alarm silenced

Supervisory (Yellow): Flashes when a supervisory condition exists; solid when supervisory silenced

System Troubles (Yellow): Flashes when a trouble condition exists; solid when trouble silenced

System Silenced (Yellow): On when an alarm, trouble or supervisory condition has been silenced but not yet cleared

System Power (Green): Flashes for AC failure; solid when power systems are normal

### Telephone

Requirements: FCC Part 15 & Part 68 approved

Jack: RJ31X (two required)

### Approvals

NFPA 13, NFPA 15, NFPA 16, NFPA 70, & NFPA 72: Central Station; Remote Signalling; Local Protective Signalling Systems; Auxiliary Protected Premises Unit; & Water Deluge Releasing Service.

Other Approvals: UL Listing; CSFM 7170-0559: 135; MEA 429-92-E Vol. VI; FM Approved

## Ordering Information

IFP-1000	Intelligent Fire Alarm Control Panel.
IFP-1000HV	Intelligent Fire Alarm Control Panel. High voltage (240 VAC).

### SBUS Accessories

RA-100	Remote Annunciator. Similar in operation and appearance to FACP annunciator. Gray.
RA-100R	Remote Annunciator. Similar in appearance and operation to FACP annunciator. Red.
RA-1000	Remote Annunciator. Four line LCD annunciator with 20 characters per line.
5815XL	Signal Line Circuit (SLC) Expander.
RPS-1000	Intelligent Power Module.
5496	Intelligent Power Module.
5824	Serial/Parallel Printer Interface Module.
5880	LED I/O Module.
5865-3 & 5865-4	LED Fire Annunciators.
5883	Relay Interface Board.

### Hochiki and IDP Devices

See the specification sheets listed below for a complete listing of the Hochiki and IDP devices.

350360	Hochiki Devices Specification Sheet
350361	Intelligent Device Protocol Devices Specification Sheet

### Miscellaneous Accessories

5650/5651	Silent Knight Software Suite. Provides programming, upload/download, and event reporting.
5670	Silent Knight Software Suite. Provides facility monitoring.
Plex-1	Door Accessory. Dead front cabinet door with clear window to limit access to panel.
RBB	Remote Battery Box Accessory Cabinet. Use if backup batteries are too large to fit into FACP cabinet. Dimensions: 16" W x 10" H x 6" D (406 mm W x 254 mm H x 152 mm D)



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# Farenhyt

Analog/Addressable Devices with  
Hochiki Protocol

## Hochiki Devices

Hochiki devices are intelligent analog/addressable devices for use with the following Farenhyt addressable fire alarm control panels (FACPs): IFP-1000, IFP-100, and IFP-50. Hochiki detectors, modules, and accessories communicate to the FACP over the signaling line circuit loop (SLC loop) using a two wire connection. Shielded or twisted wire is not required. Up to 127 addressable Hochiki devices can communicate with the FACP on a single SLC loop. Any combination of addressable Hochiki devices and Hochiki modules can be used on a single SLC loop.

The assortment of Hochiki detectors, modules, and accessories that are compatible with Farenhyt addressable FACPs are described below. For detailed information on Hochiki devices, see the device specification sheet.

## Detectors

### SD505-APS

A photoelectric smoke detector. SD505-APS has an LED light source and silicon photo diode receiving element. The detector features automatic drift compensation for contamination and a simple detector calibration test procedure that can be run at the FACP or remotely using 5650/5651 Silent Knight Software Suite.



**SD505-APS**  
(Base Not Included)

### SD505-AHS

A fixed temperature heat detector that uses an externally mounted thermistor with a specially designed cover that protects the thermistor while allowing maximum air flow. SD505-AHS offers a programmable trip point temperature from 135°F – 150°F (57°C – 65°C). This detector is well suited for environments where smoke detectors cannot be used because of the presence of steam or cooking fumes, such as in a kitchen.



**SD505-AHS**  
(Base Not Included)

### SD505-AIS

An ionization smoke detector that has a sampling chamber and reference chamber for high stability and for a variety of applications where early warning of trouble from super-heated or flaming combustibles is desired.

Presence of visible smoke or invisible gases greatly influences the current flow in the sampling chamber, changing the voltage ratio between the chambers. The difference is amplified inside the detector. When reaching a critical level, the detector triggers an alarm.



**SD505-AIS**  
(Base Not Included)

### SD505-ADH

A duct detector housing that detects smoke and products of combustion present in air moving through an HVAC duct. This duct detector is housed in a heavy duty metal housing with a preinstalled detector base. SD505-ADH is designed to be used with SD505-APS photoelectric smoke detector or SD505-AIS ionization smoke detector (order separately). SD505-ADH has an air velocity rating from 500 feet per minute to 4,000 feet per minute with SD505-APS and from 300 feet per minute to 4,000 feet per minute with SD505-AIS. Order STS-2.5, STS-5.0, and STS-10.0 air sampling tubes separately.

### SD505-ADHR

A duct detector housing that detects smoke and products of combustion present in air moving through an HVAC duct. The SD505-ADHR provides a fully programmable Form C contact. This duct detector is housed in a heavy duty metal housing with a preinstalled detector base and relay module. It is designed to be used with SD505-APS photoelectric smoke detector or SD505-AIS ionization smoke detector (order separately). When smoke is detected in a duct, the detector communicates the condition to the FACP. The built-in relay module then turns off fans, blowers, and other devices. SD505-ADHR has an air velocity rating from 500 feet per minute to 4,000 feet per minute with SD505-APS and from 300 feet per minute to 4,000 feet per minute with SD505-AIS. Order STS-2.5, STS-5.0, and STS-10.0 air sampling tubes separately. Optional SD505-DTS remote test switch available.



**SD505-ADHR**



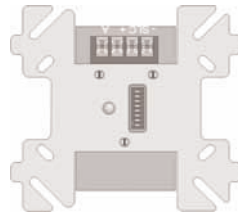
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## Modules

### SD500-AIM

A dry contact input module that acts as an interface to contact devices, such as waterflow switches and pull stations. The SD500-AIM supports Class B supervised wiring. This module monitors for alarm contact closures and open circuit wiring fault conditions. Mounts in a 4" square box.



SD500-AIM

### SD500-MIM

A compact and light weight monitor module that acts as an interface to contact devices, such as waterflow switches and pull stations. The SD500-MIM supports Class B supervised wiring. This module mounts in a single gang box.

### SD500-ARM

A relay module that provides one relay with two Form C contacts rated at 2.0A @ 30 VDC or 0.6A @ 120 VAC. The SD500-ARM can control a wide variety of normally open or normally closed applications, including elevator recall, door closing, fan operation, and auxiliary notification.

### SD500-ANM

A notification module that lets you add notification circuits wherever they are needed on an FACP SLC loop. The SD500-ANM provides supervised monitoring of wiring to load devices such as bells, horns, and strobes. You can supply power to this module near the signaling appliance to reduce wire gauge requirements or supply power from a main power supply and control it separately by the individual notification modules. The SD500-ANM supports Class B and Class A wiring and all 16 notification patterns available on the FACP.

### SD500-SDM

A two-wire interface module that allows an FACP to interface with and monitor two-wire conventional devices. This means you can retrofit an existing building and use existing conventional devices, including two-wire smoke detectors and devices with dry contacts, such as pull stations and heat detectors. The SD500-SDM transmits the status condition (normal, open, or alarm) of one full zone of two-wire devices to the FACP. The SD500-SDM supports Class B and Class A wiring.

### SD500-LIM

A line isolator module that isolates a short circuit wiring fault on an SLC loop. When a short occurs on the SLC loop, it is detected as a trouble but all of the SLC devices protected by a SD500-LIM will continue to operate.



SD500-LIM

### SD500-LED

An LED driver module that connects to the SLC loop and is capable of driving 80 LEDs. IFP FACP's support up to 40 SD500-LEDs per SLC loop.

## Accessories

### SD500-PS/SD500-PSDA

The SD500-PS is a single action pull station requiring only one motion to activate the station. The SD500-PSDA is a dual action pull station requiring two motions to activate the station. Both pull stations feature a rugged metal construction and mount in a single gang box.



SD500-PS

### SD505-DTS

A remote test switch for use with the SD505-ADHR that provides remote key operated test function and annunciation of detector alarm.

### SD505-6SB

A 6" mounting base adds an audible output function to SD505-APS, SD505-AIS, and SD505-AHS. The SD505-6SB can be used as a single station, multi-station, or as a system sounder.

### SD505-6RB

A 6" mounting base with one Form C relay contact. The SD505-6RB lets you control a wide variety of normally open and normally closed applications, including elevator recall, door closing, fan operation, and auxiliary notification. Because this relay is addressable, the relay device can be located at any point on the SLC loop.

### SD505-6IB

A 6" mounting base with a built-in isolator for SD505-APS, SD505-AIS, and SD505-AHS detectors. When the SD505-6IB is connected to the SLC loop, a short, open, or ground fault occurring on the SLC loop is detected as a trouble but all SLC devices continue to operate. SD505-6IB fits under SD505-6AB detector base (included).



SD505-6IB Isolator Base

### SD505-6AB

A 6" mounting base is for use with SD505-APS, SD505-AIS, and SD505-AHS.

### SD505-4AB

A 4" mounting base is for use with SD505-APS, SD505-AIS, and SD505-AHS.



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# Farenhyt

Analog/Addressable Devices with  
Intelligent Device Protocol

## Intelligent Device Protocol (IDP) Devices

Intelligent Device Protocol (IDP) devices are intelligent analog/addressable devices for use with the following Farenhyt addressable fire alarm control panels (FACPs): IFP-1000, IFP-100, and IFP-50. IDP detectors, modules, and accessories communicate to the FACP over the signaling line circuit loop (SLC loop) using a two-wire connection. Shielded or twisted wire is not required. Up to 99 addressable IDP detectors and 99 IDP modules can communicate with the FACP on a single SLC loop. Any combination of addressable IDP devices and IDP modules can be used on a single SLC loop.

The assortment of IDP detectors, modules, and accessories that are compatible with Farenhyt addressable FACPs are described below. For detailed information on IDP devices, see the device specification sheet.

## Detectors

### IDP-Photo

A plug-in photoelectric smoke detector. IDP-Photo offers a unique optical sensing chamber that is engineered to sense smoke produced by a wide range of combustion sources.



IDP-Photo (Base Not Included)

### IDP-Photo-T

A plug-in photoelectric smoke detector with thermal. IDP-Photo-T offers a unique optical sensing chamber that is engineered to sense smoke produced by a wide range of combustion sources. Dual electronic thermistors add 135°F (57°C) thermal technology to maximize detection.

### IDP-Ion

A plug-in ionization smoke detector. IDP-Ion incorporates a unique single source, dual chamber design to respond quickly to a broad range of fires.

### IDP-Heat

A fixed temperature thermal detector that uses a thermistor sensing circuit to produce 135°F (57°C) fixed thermal detection.



IDP-Heat (Base Not Included)

### IDP-Heat-HT

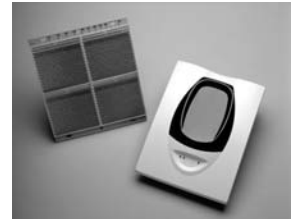
A variable high temperature detector that provides high temperature detection at 135°F – 190°F (57°C – 88°C).

### IDP-Heat-ROR

A fixed temperature and rate-of-rise thermal detector that uses a thermistor sensing circuit to produce 135°F (57°C) thermal protection. Rate-of-rise detection occurs at 15°F per minute (9°C per minute).

### IDP-Beam

A beam smoke detector that is uniquely suited for protecting open areas with high ceilings where other methods of smoke detection are difficult to install and maintain.



IDP-Beam

### IDP-Beam-T

A beam smoke detector that includes an integrated sensitivity test feature. The IDP-Beam-T is uniquely suited for protecting open areas with high ceilings where other methods of smoke detection are difficult to install and maintain.

### IDP-Pduct

An addressable photoelectric air duct smoke detector with an air velocity rating from 100 to 4000 feet per minute (0.5 to 20.32 meters per second). The IDP-Pduct requires communication line power only.

### IDP-Pduct-R

A photoelectric air duct smoke detector with an air velocity rating from 100 to 4000 feet per minute (0.5 to 20.32 meters per second). Configure the IDP-Pduct-R as a relay version or jumper to mimic the non-relay IDP-Pduct. Requires both communication line power and one of the following: 24 VAC/VDC or 120/220 VAC for operation.



IDP-Pduct-R

### IDP-Acclimate

Incorporates both thermal and photoelectric technologies that interact to maximize detection. The IDP-Acclimate has an on-board microprocessor with advanced software that focuses on rejecting nuisance alarms. Using advanced software, IDP-Acclimate continuously samples the air in the environment and adjusts its detection parameters and alarm threshold accordingly. In a fire, the smoke and heat sensors work together to make the quickest possible decision. The photo sensor is optimized for smoldering fires, and the heat sensors are rate-of-rise compensated to provide a faster response to flaming fires. The on-board intelligent software combines both signals to give an early alarm.



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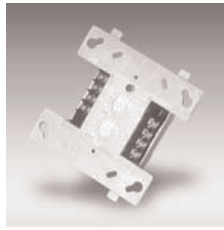
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## Modules

### IDP-Monitor

A monitor module that acts as an interface to contact devices, such as waterflow switches and pull stations. The IDP-Monitor supports Class B supervised or Class A supervised wiring.



IDP-Monitor

### IDP-Minimon

A compact and light weight monitor module that acts as an interface to contact devices, such as waterflow switches and pull stations. The IDP-Minimon supports Class B supervised wiring.

### IDP-Monitor-2

A monitor module with two initiating circuits that acts as an interface to contact devices, such as waterflow switches and pull stations. Because the IDP-Monitor-2 is capable of monitoring two separate Class B circuits, it is ideal for waterflow tamper switch and flow switch monitoring.

### IDP-Monitor-10

A 10 point monitor module that acts as an interface to contact devices, such as waterflow switches and pull stations. Conventional 4-wire smoke detectors can be monitored for alarm and trouble conditions. The IDP-Monitor-10 supports ten Class B or five Class A supervised contact inputs.

### IDP-Relay

A relay module that allows an FACP to switch discrete contacts by code command. The relay contains two isolated sets of Form C contacts, which operate as a DPDT switch.

### IDP-Relay-6

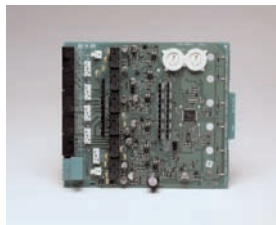
A relay module that has six Form C relays. The IDP-Relay-6 allows an FACP to switch discrete contacts by code command and can be used by virtually any normally open or normally closed application.

### IDP-Control

A notification module that lets you add notification circuits wherever they are needed on an FACP SLC loop. The IDP-Control provides supervised monitoring of wiring to load devices such as bells, horns, and strobes. The IDP-Control supports Class B and Class A wiring.

### IDP-Control-6

A notification module that has six integrated modules for maximum flexibility, allowing you to add notification circuits wherever they are needed on an FACP SLC loop. The IDP-Control-6 provides supervised monitoring of wiring to load devices that require an external power supply or amplifier to operate, such as bells, horns, and strobes. The IDP-Control-6 supports Class B and Class A wiring and has a short circuit protection monitor for each module to protect external power supplies against short circuit conditions on the NAC.



IDP-Control-6

### IDP-Zone

A two-wire interface module that allows an FACP to interface with and monitor two-wire conventional smoke detectors. This means you can retrofit an existing building and use existing conventional devices. The IDP-Zone supports Style B and Style D wiring.

### IDP-Zone-6

A two-wire interface module that has six integrated modules and allows an FACP to interface with and monitor two-wire conventional smoke detectors. This means you can retrofit an existing building and use existing conventional devices. The IDP-Zone-6 supports Class B and Class A wiring.

### IDP-Iso

A line isolator module that acts as an automatic switch that opens when the line voltage on the SLC loop drops below four volts. Isolator modules are spaced between groups of sensors or modules in a loop to protect the rest of the loop. If a short occurs between any two isolators, then both isolators immediately switch to an open circuit state and isolate the devices between them.



IDP-Iso

## Accessories

### IDP-Pull-SA/IDP-Pull-DA

The IDP-Pull-SA is a single action pull station requiring only one motion to activate the station. The IDP-Pull-DA is a dual action pull station requiring two motions to activate the station.

### SSB501BHT

A 6" mounting base with a built-in sounder for IDP-series detectors. The SSB501BHT incorporates the distinctive three-pulse temporal pattern fire alarm evacuation signal. Requires an external 24 VDC power supply. The SSB501BHT supports Class B and Class A wiring.



SSB501BHT Sounder Base  
(Detector Not Included)

### SSB224RB

A 6" mounting base with a built-in Form C relay contact. The SSB224RB lets you control a wide variety of normally open and normally closed applications. Because the relay is addressable, the relay device can be located at any point on the SLC. The SSB224RB supports Class B and Class A wiring.

### SSB224BI

A 6" mounting base with a built-in isolator for IDP-series detectors. The SSB224BI prevents an entire communication loop from being disabled when a short circuit occurs by isolating any part of a loop that has a short from the rest of the loop. The base automatically restores the entire loop when the cause of the short circuit is corrected. The SSB224BI supports Class B and Class A wiring.



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