MS-9050UDC

Fire Alarm Control Panel with DACT

Fire·Lite Alarms
by Honeywell

Addressable

General

The **Fire•Lite MS-9050UDC** is a Fire Alarm Control Panel (FACP) and Digital Alarm Communicator/Transmitter (DACT) combined into one circuit board. This compact, intelligent addressable control panel supports up to 50 addressable devices of any type of detectors and modules. With an extensive list of powerful features, the MS-9050UDC programs easily, and fits into applications previously served only by conventional panels.

The MS-9050UDC's integral DACT transmits system status (alarms, troubles, AC loss, etc.) to a Central Station via the public switched telephone network. It also allows remote and local programming of the control panel using the PK-CD Upload/Download utility. In addition, the control panel may be programmed or interrogated off-site via the public switched telephone network. Any personal computer with Windows™ 95 or greater, and compatible modem with a speed of 14.4 kbps or faster and Fire•Lite Upload/Download software kit PK-CD, may serve as a Service Terminal. This allows download of the entire program or upload of the entire program, history file, walk-test data, current status and system voltages.

The power supply and all electronics are contained on a single circuit board supported on a new quick install chassis and housed in a metal cabinet. Available accessories include local and remote upload/download software, remote annunciators, and reverse polarity/city box transmitter. (4XTMF).

Features

- Listed to ULC S527-99, S559-04.
- Auto-program (learn mode) reduces installation time. Reports two devices set to the same address.
- On-board DACT.
- Two independently programmable Class A or Class B NAC circuits.
- Selectable strobe synchronization for System Sensor, and Wheelock devices.
- Two programmable relays and one fixed trouble relay.
- Built-in Programmer.
- Telephone Line Active LEDs.
- EIA-232 PC interface.
- Integral 80-character LCD display with backlighting.
- Real-time clock/calendar with automatic daylight savings control.
- History file with 500 event capacity.
- Automatic detector sensitivity testing.
- Automatic device type-code verification.
- Point trouble identification.
- Waterflow selection per module point.
- Alarm verification selection per detector point.
- Maintenance alert warns when smoke detector dust accumulation is excessive.
- One person audible or silent walk test with walk-test log and printout.
- System alarm verification selection per detector point.
- PAS (Positive Alarm Sequence) and Pre-signal per point.

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- Remote Acknowledge, Alarm Silence, Reset and Drill via addressable modules or remote annunciator.
- Upload/Download (local or remote) of program and data via integral DACT.
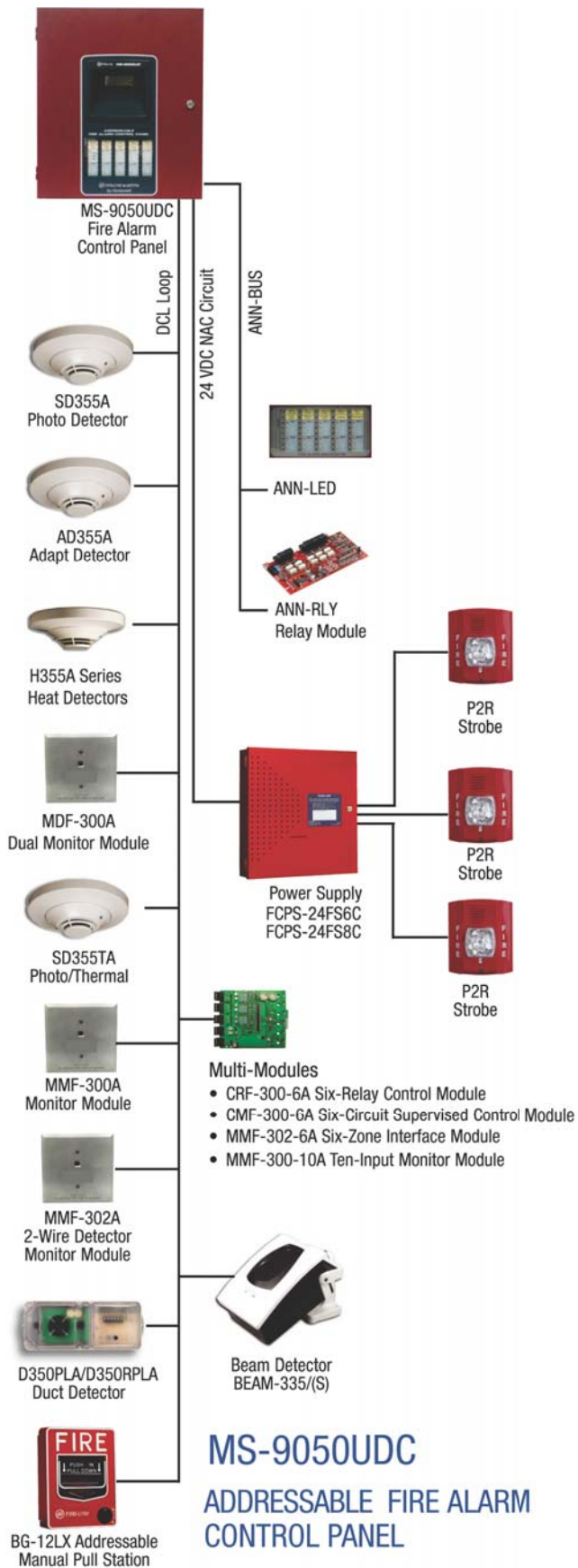
DCL COMMUNICATION LOOP

- Single addressable DCL loop which meets ULC DCLA, DCLB and DCLC requirements.
- 50 addressable device capacity (any combination of addressable detectors and modules).
- Compatible with Fire•Lite's addressable devices (refer to the *SLC Wiring Manual*).

NOTIFICATION APPLIANCE CIRCUITS (NACS)

- Two independently programmable output circuits. Circuits can be configured for the following outputs:
  - **Class B**
  - **Class A**
  - **Door Holder Service** (cannot be used for notification appliances)
  - **Aux Power Source** (cannot be used for notification appliances)
- Silence Inhibit and Autosilence timer options.
- Continuous, March Time, Temporal or California code for main circuit board NACs with two-stage capability.
- Selectable strobe synchronization per NAC.
- 2.5 A total power for NACs.

NOTE: *Maximum or total 24VDC system power shared between all NAC circuits and the ANN-BUS is 2.7 A.*

MS-9050UDC
Fire Alarm
Control Panel

DCL Loop

24 VDC NAC Circuit

ANN-BUS

SD355A
Photo Detector

AD355A
Adapt Detector

H355A Series
Heat Detectors

MDF-300A
Dual Monitor Module

SD355TA
Photo/Thermal

MMF-300A
Monitor Module

MMF-302A
2-Wire Detector
Monitor Module

D350PLA/D350RPLA
Duct Detector

BG-12LX Addressable
Manual Pull Station

ANN-LED

ANN-RLY
Relay Module

Power Supply
FCPS-24FS6C
FCPS-24FS8C

Multi-Modules
• CRF-300-6A Six-Relay Control Module
• CMF-300-6A Six-Circuit Supervised Control Module
• MMF-302-6A Six-Zone Interface Module
• MMF-300-10A Ten-Input Monitor Module

Beam Detector
BEAM-335/(S)

P2R
Strobe

P2R
Strobe

P2R
Strobe

MS-9050UDC
ADDRESSABLE FIRE ALARM
CONTROL PANEL

PROGRAMMING AND SOFTWARE
- Autoprogram (learn mode) reduces installation time.
- Custom English labels (per point) may be manually entered or selected from an internal library file.
- Two programmable Form-C relay outputs.
- 20 software zones.
- Continuous fire protection during online programming at the front panel.
- Program Check automatically detects common errors not linked to any zone or input point.
- **OFFLINE PROGRAMMING:** Create the entire program in your office using a Windows®-based software package (order programming kit PK-CD, containing PS-Tools, separately). Upload/download system programming locally.

User interface

LED INDICATORS
- AC Power (green)
- Fire Alarm (red)
- Supervisory (yellow)
- Trouble (yellow)
- Alarm Silenced signals (yellow)

KEYPAD
- 16 key alpha-numeric pad
- Acknowledge/Step
- Alarm Silenced
- Drill (Manual Evacuate)
- Reset (lamp test)

Product Line Information

MS-9050UDC: Combination DACT/Fire Alarm Control Panel with one DCL loop. Includes main circuit board with display, chassis with transformer, backbox with door, plastic bag containing screws, cables, key, etc., manual.

PK-CD: Contains PS-Tools programming software for Windows®-based PC computer (cable not included).

TR-CE: Optional trim ring for semi-flush mounting.

BB-2F: Optional cabinet for one or two modules.

BB-6F: Optional cabinet for up to six modules mounted on CHS-6 chassis.

BB-26: Battery backbox, holds up to two 25 AH batteries.

BB-55F: Battery box, houses two 55 AH batteries

CHS-6: Chassis, mounts up to six multi-modules in a BB-6F cabinet.

CHG-120F: Remote battery charging system for lead-acid batteries with a rating of 55 to 120 AH. Requires additional BB-55F for mounting. **BA Series:** Batteries.

PRT/PK-CABLE: Cable printer/personal computer interface cable.

AC-TRMBLK: AC Terminal Block mounts to a metal bracket, in turn, mounts to the FACP chassis. Use AC-TRMBLK when wire nuts are not allowed for AC connections to the transformer.

OPTIONAL MODULES

4XTMF Reverse Polarity Transmitter Module: Provides a supervised output for local energy municipal box transmitter, alarm and trouble. Includes a disable switch and disable trouble LED.

ANN-SEC: Optional secondary ANN-BUS interface module. *Note: Used only with firmware 3.0 or higher.*

COMPATIBLE ANNUNCIATORS

ANN-LED: Annunciator Module provides three LEDs for each zone: Alarm, Trouble and Supervisory. Built-in.

ANN-RLY: Relay Module provides 10 programmable Form-C relays. Can be mounted inside the cabinet.

ADDRESSABLE DEVICES

All feature a polling LED and rotary switches for addressing.

CP355A: Addressable low-profile ionization smoke detector.

SD355A: Addressable low-profile photoelectric smoke detector.

SD355RA: Remote-test capable addressable low-profile photoelectric smoke detector; for use with DNRA duct-detector housing.

SD355TA: Addressable low-profile photoelectric smoke detector with thermal sensor.

H355A: Fast-response, low-profile heat detector.

H355RA: Fast-response, low-profile heat detector with rate-of-rise option.

H355HTA: Fast-response, low-profile heat detector that activates at /88°C.

BEAM355A: Intelligent beam smoke detector.

BEAM355SA: Intelligent beam smoke detector with integral sensitivity test.

D350PLA: Photoelectric low-flow duct smoke detector.

D350RPLA: Photoelectric low-flow duct smoke detector with relay option.

DNRA: InnovairFlex low-flow non-relay duct-detector housing. (Order SD355A separately.)

MMF-300A: Addressable Monitor Module for one zone of normally-open dry-contact initiating devices. Mounts in standard 10.16 cm. box. Includes plastic cover plate and end-of-line resistor. Module may be configured for either a Style B (Class B) or Style D (Class A) IDC.

MDF-300A: Dual Monitor Module. Same as MMF-300A except it provides two Style B (Class B) only IDCs.

MMF-301A: Miniature version of MMF-300A. Excludes LED and Style D option. Connects with wire pigtails. May mount in device backbox.

MMF-302A: Similar to MMF-300A. Addressable Monitor Module for one zone of conventional two-wire detectors. Requires resettable 24 VDC power. Refer to the *Device Compatibility Document* for listed compatible devices and quantity limitation.

CMF-300A: Addressable Control Module for one Style Y/Z (Class B/A) zone of supervised polarized Notification Appliances. Mounts directly to a 10.16 cm. electrical box. Notification Appliance Circuit option requires external 24 VDC to power notification appliances.

CRF-300A: Addressable relay module containing two isolated sets of Form-C contacts, which operate as a DPDT switch. Mounts directly to a 10.16 cm. box, surface mount using the SMB500-C.

BG-12LX: Addressable manual pull station with interface module mounted inside.

I300A: This module isolates the DCL loop from short circuit conditions (required for Style 6 or 7 operation).

SMB500-C: Used to mount all modules except the MMF-301A and M301.

MMF-300-10A: Ten-input monitor module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

MMF-302-6A: Six-zone interface module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

CMF-300-6A: Six-circuit supervised control module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

CRF-300-6A: Six-relay control module (Form-C relays). Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

NOTE: *For more information on Compatible Addressable Devices for use with the MS-9050UDC, see the following data sheets (document numbers): AD355(A) (DF-52386), BG-12LX (DF-52013), CMF-300-6(A) (DF-52365), CRF-300-6(A) (DF-52374), CMF-300 (DF-52130), CRF-300 (DF-60379), CP355(A) (DF-52383), D350PL(A)/D350RPL(A) (DF-52398), H355(A) Series (DF-52385), I300 (DF-52389), MMF-300(A) Series/MDF-300(A) (DF-52121), MMF-300-10(A) (DF-52347), MMF-302-6(A) (DF-52356), SD355(A)/SD355T(A) (DF-52384), InnovairFlex (DF-60425, DF-60430).*

ADDRESSABLE DEVICE ACCESSORIES

End-of-Line Resistor Assembly (R-47K and R-3.9K): The 47k ohm assembly supervises the MMF-300A, MDF-300A, MMF-301A, and CMF-300A module circuits. The 3.9k ohm assembly supervises the MMF-302A module circuit. These resistors are included with each module.

Power Supervision Relay: Supervises the power to 4-wire smoke detectors and notification appliances.

EOL-CR, EOL-CW: Single End-of-Line resistor plate (required). EOL-CR is red; EOL-CW white.

Wiring Requirements

While shielded wire is not required, it is recommended that all DCL wiring be twisted-pair to minimize the effects of electrical interference. Refer to the panel manual for complete details.

SYSTEM SPECIFICATIONS

System Capacity

- Intelligent DCL Circuit Loops 1
- Addressable device capacity 50
- Programmable software zones 20
- Annunciators 2

Electrical Specifications

AC Power: MS-9050UDC 120 VAC, 60 Hz, 0.3 A.

Battery: Two 12 V 18 AH lead-acid batteries. Battery Charger Capacity: 7-18 AH (MS-9050UDC cabinet holds maximum of two 18 AH batteries.)

Communication Loop: Supervised and power-limited.

Notification Appliance Circuits: Terminal Block provides connections for two NACs, Class B or Class A. Special Application power. Power-limited, supervised circuitry. Maximum signaling current per circuit: 2.5 A. End-of-Line Resistor: 4.7k ohm, ½ watt for Class B NAC. Refer to the Fire•Lite Device Compatibility Document for listed compatible devices.

Two Programmable Relays and One Fixed Trouble Relay: Contact rating: 2.0 A @ 30 VDC (resistive), 0.5 A @ 30 VAC (resistive). Form-C relays, nonpower-limited, nonsupervised.

Cabinet Specifications

Door: 48.92 cm. high x 42.73 cm. wide x 1.82 cm. deep. **Back-box:** 48.26 cm. high x 42.29 cm. wide x 13.34 cm. deep. **Trim Ring (TR-CE):** 55.88 cm. high x 49.91 cm. wide.

Shipping Specifications

Weight: 12.20 kg. **Dimensions:** 50.80 cm. high x 57.15 cm. wide x 21.59 cm. deep.

Temperature and Humidity Ranges

This system meets NFPA requirements for operation at 0 – 49°C and at a relative humidity 93% ± 2% RH (noncondensing) at 32°C ± 2°C. 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.

Agency Listings and Approvals

The listings and approvals below apply to the basic MS-9050UDC control panel. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **ULC listed:** File DAYRC S624, UOJZC S624

ISO 9001
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ENGINEERING & MANUFACTURING
QUALITY SYSTEMS

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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