

Unimode 9600UDLS

Intelligent Addressable FACP with Optional Second Loop

tyco
Integrated Security

Addressable Control Panels

General

The Unimode 9600UDLS is a compact, cost effective, intelligent addressable FACP (Fire Alarm Control Panel) with an extensive list of powerful features. The combination of Unimode's newer series devices and legacy 300 Series devices, along with the Unimode 9600UDLS FACP, offer the latest in fire protection technology. Lite-Speed™ is a patented technology that polls 10 devices at a time looking for new or different information. When new information is found at a specific address, the system polls that device several times for any new data. This improvement allows a fully loaded panel with up to 636 devices to report an incident and activate the notification circuits in under 10 seconds. With this polling scheme, devices can be wired on standard twisted, unshielded wire up to a distance of 10,000 feet per loop. Each Signaling Line Circuit (SLC) loop supports up to 159 addressable detectors including photoelectric, photoelectric with heat, beam, ionization, photoelectric duct, fixed heat, fixed heat with rate-of-rise, and fixed high-heat detectors. It also supports up to 159 addressable modules including monitor (two-wire detector, normally open devices), dual-monitor functions (two monitor circuits from one module, two addresses used), multi-monitor (multiple monitor circuits from one module, multiple addresses used), control (for Notification Appliance Circuits), and relay (two Form-C) modules.

The FLPS-7 power supply is a separate board while all other electronics are contained on a single main circuit board. Both boards are mounted to a quick-removable chassis and housed in a metal cabinet. The backbox can be installed allowing field wiring to be pulled. When construction is completed, the chassis with the electronics can be quickly installed with two bolts.

The Unimode 9600UDLS includes a factory-installed 2 Digital Alarm Communicator Transmitter. The DACT transmits system status (alarm, troubles, AC loss, etc.) to a Central Station via internet (optional IPDACT installed) or the public switched telephone network.

Optional modules, which plug into the main circuit board, are available for special functions. Available accessories include LED, graphic and LCD annunciators, reverse polarity/city box transmitter, digital alarm communicator/transmitter, SLC expansion module, local and remote upload/download software and remote power expansion.

FM APPROVED to UL ANSI 864.

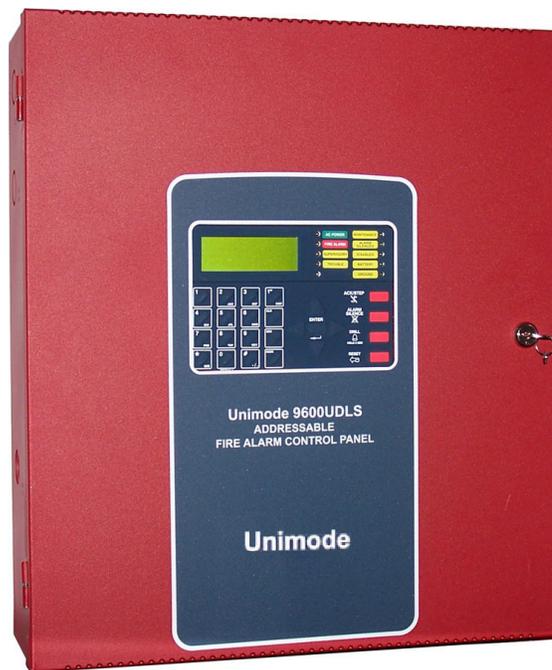
Controls And Indicators

LED INDICATORS

- AC POWER (green)
- FIRE ALARM (red)
- SUPERVISORY (yellow)
- ALARM SILENCED (yellow)
- SYSTEM TROUBLE (yellow)
- MAINTENANCE/PRESIGNAL (yellow)
- DISABLED (yellow)
- BATTERY FAULT (yellow)
- GROUND FAULT (yellow)

MEMBRANE SWITCH CONTROLS

- ACKNOWLEDGE/STEP
- ALARM SILENCE
- DRILL



- SYSTEM RESET (lamp test)
- 12-key pad with full alphabet
- 4 cursor keys
- ENTER

Special Features

- Easy mount chassis.
- 7 amp switching power supply.
- Large enclosure allows 18 amp-hour batteries
- 2 plug-in communicator standard with Unimode 9600UDLS.
- Optional IPDACT Internet Protocol Digital Alarm Communicator/Transmitter
- Four Style Y (Class B) or two Style Z (Class A) NAC circuits.
- Selectable strobe synchronization per NAC for System Sensor, Wheelock, and Gentex devices.
- Certified for seismic applications when used with the appropriate seismic mounting kit
- Seamless integration between fire and mass notification with the ECC-50/100 Emergency Command Center via ANN-BUS connections.
- ECC-FFT Firefighter Telephone Option
- ANN-BUS for connection to following optional modules
Note: cannot be used if ACS annunciators are used.
 - TIS-ANN-80 Remote LCD Annunciator
 - ANN-RLY Relay Module
 - ANN-LED Annunciator Module
 - ANN-RLED Annunciator Module (alarms only)
- Compatible with SWIFT® wireless devices

Standard Features

SLC LOOP

- SLC can be configured for NFPA Style 4, 6, or 7 operation.
- SLC supports up to 318 addressable devices per loop (159 detectors and 159 monitor, control, or relay modules).
- SLC loop maximum length 10,000 ft. (3,048 m) @ 12 AWG (3.1 mm²) using twisted, unshielded wire (see Wire Table on page 5).

NOTIFICATION APPLIANCE CIRCUITS (NACS):

- Four onboard NACs with additional NAC capability using output control modules (CMF-300 or CMF-300-6). The four Class B NACs can be converted to two Class A NACs with the NACKEY (included).
- Silence Inhibit and Auto Silence timer options.
- Continuous, March Time, Temporal or California code for main circuit board NACs with two-stage capability.
- Selectable strobe synchronization per NAC.
- 3.0 amps special application, 300mA regulated maximum per each NAC circuit
Note: Maximum 24 VDC system power output is shared among all NAC circuits and 24 VDC special application auxiliary power outputs. Total available output is 7.0 amps.

ADVANCED FIRE TECHNOLOGY:

- Sensitivity testing with printable results, on-site or off-site.
- Automatic drift compensation.

PROGRAMMING AND SOFTWARE:

- Autoprogramming (learn mode) reduces installation time.
- Fully programmable from local keypad, local PS/2 keyboard or PC (using the standard PS-Tools Windows® utility).
- Two-level user-programmable passwords.
- Custom English labels (per point) may be manually entered or selected from an internal library file.
- Three Form-C relay outputs (two programmable).
- 99 software zones.

USER INTERFACE:

- Optional plug-in 2 communicator (standard with Unimode 9600UDLS with USB port for local upload/download).
- Remote Acknowledge, Silence, Reset and Drill via addressable monitor modules, ACS Series annunciators, LCD-80F remote annunciator, or ANN-80 Series Annunciators.
- EIA-232 printer/PC interface (variable baud rate) on main circuit board.
- Integral 80-character LCD display with backlighting.
- Real-time clock/calendar with automatic daylight savings adjustments.
- History file with 1,000-event capacity.
- EIA-485/ANN-BUS supporting up to 8 ANN Series Annunciators or 32 ACS Series annunciators.
- EIA-485 supporting up to 32 ACS annunciators.
- Maintenance alert warns when smoke detector dust accumulation is excessive.
- Automatic device type-code verification.
- One person audible or silent walk test with walk-test log and print-out.
- Point trouble identification.
- Local piezo sounder.
- Waterflow (non-silenceable) selection per monitor point.
- System alarm verification selection per detector point.
- PAS (Positive Alarm Sequence) and presignal delay per point (NFPA 72 compliant).

- Optional 4XTMF module (conventional reverse polarity/city box transmitter).

Field-programming Features

Off-line Programming: Create the entire program in your office using a Windows®-based software package (download PS-Tools from www.unimode.com). Upload/download system programming locally to the Unimode 9600UDLS in less than one minute.

Autoprogramming: Command the Unimode 9600UDLS to program itself (takes less than 30 seconds). In the Auto-Program mode, the Unimode 9600UDLS scans for all possible devices at all addresses, stores the device types, and addresses found, and then loads default values for all options (General Alarm). It also checks for two or more devices set to the same address.

Online Editing: While still providing fire protection, the Unimode 9600UDLS may be programmed from the front panel. Simple menu trees displayed on the LCD allow the trained user to perform all functions without referring back to the programming manual.

English Label Library: Quickly select labels from a standard library of more than 50 adjectives/nouns, such as “FLR 3 HALLWAY,” or enter custom labels letter-by-letter. Use recall function to repeat previously used label.

Program Check: Automatically catch common errors, such as control modules not linked to any zone or input point.

Maintenance Alert

The Unimode 9600UDLS continuously monitors each smoke detector and is capable of reporting maintenance conditions. This reduces the risk of false alarms due to dust accumulation. Refer to the control panel installation manual for more information.

Automatic Test Operation

The Unimode 9600UDLS performs an automatic test of each detector every two hours. Failure to meet the test limits causes an AUTO TEST FAIL trouble type. System Reset clears this trouble.

Terminal Blocks

AC Power – TB1: 120 VAC, 60 Hz, 3.0 amps. Wire size: minimum 14 AWG (2.00 mm²) with 600 V insulation.

Battery (lead acid only) – TB2: Maximum charging circuit: Normal float charge 27.6 VDC @ 1.0 amp. Maximum battery charger capacity: 26 AH. Minimum battery 12 AH. Unimode 9600UDLS cabinet holds maximum of two 18 AH batteries. For 26 – 120 AH batteries, use the CHG-120F or CHG-75 Battery Charger and BB-55F Battery Box.

NOTE: Jumper JP3, on the FACP main circuit board, must be cut to disable the FACP battery charger when using the CHG-120F or CHG-75.

Communication Loop – (standard) TB8: 24 VDC nominal, 27.6 VDC maximum. Maximum length: 10,000 ft. (3048 m) total twisted, unshielded pair length. Maximum loop current: 400 mA (short circuit) or 100 mA (normal). Maximum loop resistance: 40 ohms. Supervised and power-limited.

Notification Appliance Circuits – TB4: Power-limited circuitry. Nominal operating voltage: 24 VDC. Current limit: fuseless, electronic, power-limited circuitry. Maximum signaling current per circuit: 3.0 amps special application, 300mA regulated. End-of-Line Resistor: 4.7K ohm, 1/2 watt (P/N 71252 UL listed) for NACs. Refer to *Unimode Device Compatibility Document* for listed compatible devices.

Programmable and Trouble Output Relays – TB5: Contact rating: 2.0 amps @ 30 VDC (resistive), 0.5 amps @ 30 VAC (resistive). Form-C relays.

Four-Wire Resettable Smoke Detector Power (24 VDC nominal) – TB3, Terminals 1(+) & 2(-):

Maximum ripple voltage: 10 mVRMS. Up to 1.5 amps for powering four-wire smoke detectors. Power-limited circuit. Refer to *Unimode Device Compatibility Document* for listed compatible devices.

Nonresettable Power #1 (24 VDC Nominal) –TB3, Terminals 3 (+) & 4 (-): Maximum ripple voltage: 10 mVRMS. Up to 1.5 amps total DC current available from each output. Power-limited circuit. TB3, Terminals 5 (+) & 6 (-): non-resettable power #2.

Nonresettable Special Application Power #2 (24 VDC Nominal) - TB3, Terminals 5 (+) & 6 (-): Maximum ripple voltage: 10mVRMS. Total DC current available from each output is up to 1.5 amps. Power-limited circuit, non-supervised.

EIA-485 (ACS/ANN) – TB6: Annunciator connector, programmable for type ANN or ACS. Terminal 1 (+) and Terminal 2 (-).

EIA-485 (TERM) – TB7: Terminal mode annunciator connector, Terminal 1 (Out +), 2 (In +), 3 (Out -), 4 (In -).

EIA-232 – TB8: PC/printer connector, Terminal 1 (Transmit), 2 (Receive), 3 (DTR), 4 (Ground).

Ordering Options

Unimode 9600UDLS: 318-point addressable Fire Alarm Control Panel, one SLC loop. Includes 2, 80-character LCD display, single printed circuit board, and cabinet.

DACT-UD2: Optional communicator for remote monitoring (standard with Unimode 9600UDLS).

SLC-2LS: Optional expander module, enables second SLC loop.

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

IPDACT-2/2UD, IPDACT Internet Monitoring Module: Mounts in bottom of enclosure with optional mounting kit (P/N: IPBRKT). Connects to primary and secondary DACT telephone output ports for internet communications over customer provided ethernet internet connection. Requires compatible Teldat VisorALARM Central Station Receiver. Can use DHCP or static IP. (See data sheet DF-60407 or DF-52424 for additional information.

IPBRKT: Optional mounting bracket kit consisting of screws and battery shield with standoffs required when mounting the IPDACT in lower enclosure section of FACP.

IPSPLT: Optional Y-Adaptor which allows connection of both panel dialer outputs to one cable input to IPDACT (sold separately).

ACM-8RF: Optional plug-in relay module provides 8 Form-C 5.0 amp relays.

PS-Tools: Programming software for Windows®-based PC computer (cable not included). Available for download at www.fire-lite.com.

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

DP-9692: Optional dress panel for Unimode 9600UDLS.

TR-CE: Optional Trim Ring for semi-flush mounting.

BB-55F: Battery box, required to house two 25 AH batteries and one CHG-120F battery charger. For batteries greater than 25 AH, consult factory for housing/mounting arrangements.

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

CHG-120F: Remote battery charging system for lead-acid batteries with a rating of 25 to 120 AH. CHG-120F or CHG-75 required for charging greater than 25 AH batteries.

CHG-75: Battery charger for lead-acid batteries with a rating of 25 to 75 AH. CHG-120F or CHG-75 required for charging greater than 25 AH batteries.

BAT Series: Batteries, see data sheet DA-46969.

PRN Series: UL listed compatible event printer which uses tractor-fed paper.

SEISKIT-COMMENC: Seismic kit for the Unimode 9600UDLS backbox. Includes battery bracket for two 7, 12, or 18 AH batteries.

Compatible Addressable Devices

All feature a polling LED and rotary switches for addressing.

AD355/AD365(-IV): Low-profile, intelligent, “Adapt” multi-sensor detector; B350LP base included.

BEAM355: Intelligent beam smoke detector.

BEAM355S: Intelligent beam smoke detector with integral sensitivity test.

CP355: Addressable low-profile ionization smoke detector.

D355PL: Photoelectric low-flow duct smoke detector, SD355R included.

H355/H365: Fast-response, low-profile heat detector.

H355R/H365R(-IV): Fast-response, low-profile heat detector with rate-of-rise option.

H355HT/H365HT(-IV): Fast-response, low-profile heat detector that activates at 190° F (88°C).

OSI-RI-FL: Addressable long range projected beam smoke detector designed to provide open area protection

SD355/SD365(-IV): Addressable low-profile photoelectric smoke detector

SD355T/SD365T(-IV): Addressable low-profile photoelectric smoke detector with thermal sensor

CDRM-300: Dual relay Monitor Module

CMF-300: Addressable Control Module for one Style Y/Z (Class B/A) zone of supervised polarized Notification Appliances. Mounts directly to a 4.0" (10.16 cm.) electrical box. Notification Appliance Circuit option requires external 24 VDC to power notification appliances.

CRF-300: Addressable relay module containing two isolated sets of Form-C contacts, which operate as a DPDT switch. Mounts directly to a 4.0" (10.16 cm.) box, surface mount using the SMB500.

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

MMF-300: Addressable Monitor Module for one zone of normally-open dry-contact initiating devices. Mounts in standard 4.0" (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.

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

MMF-302: Similar to MMF-300, but may monitor up to 20 conventional two-wire detectors. Requires resettable 24 VDC power. Consult factory for compatible smoke detectors.

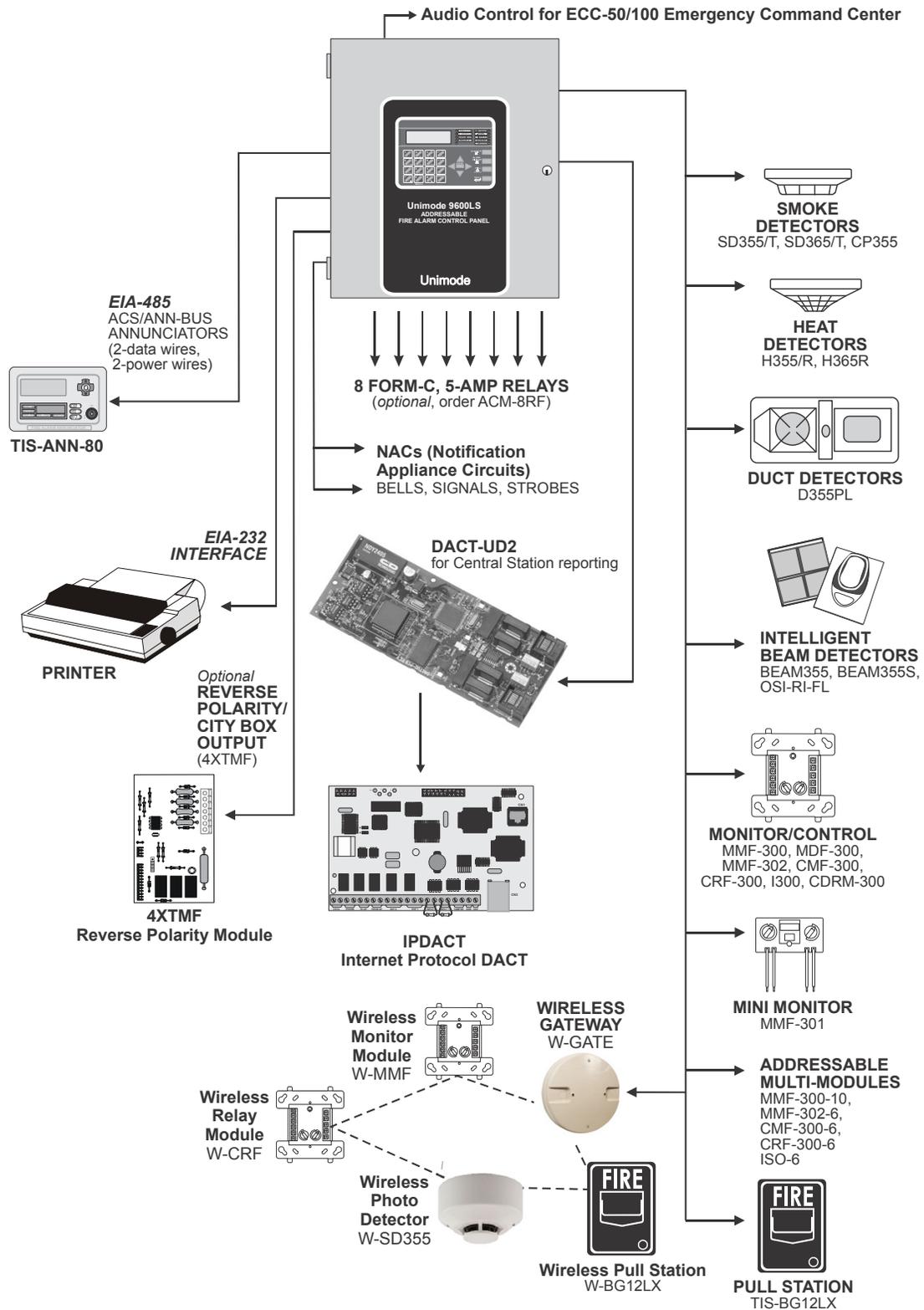
TIS-BG12LX: Addressable manual pull station with interface module mounted inside

I300: This module isolates the SLC loop from short circuit conditions (required for Style 6 or 7 operation).

ISO-6: Six-fault Isolator 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.

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

MMF-300-10: 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



MMF-302-6: 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

CMF-300-6: 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

CRF-300-6: Six Form-C relay 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

W-GATE: SWIFT Wireless Gateway

W-DIS-D: LCD user interface for use with the W-GATE wireless gateway and an ANN-80-W Remote Annunciator

W-SD355: Intelligent, wireless photo detector

W-H355R: Intelligent wireless rate of rise (135°) heat detector

W-SD355T: Intelligent wireless photo/heat detector

W-H355: Intelligent wireless fixed-temperature (135°) heat detector

W-MMF: Intelligent wireless monitor module

W-CRF: Intelligent wireless relay module

W-BG12LX: Intelligent wireless pullstation

WAV-CRL/WAV-CWL: Intelligent wireless AV bases

W-SYNC: Intelligent wireless sync module.

W-USB: Wireless USB radio/antenna dongle that plugs into the USB port of a PC running SWIFT Tools

SWIFT Tools: Programming and diagnostic utility for the Wireless Gateway and devices. Available for download from firelite.com.

Compatible Annunciators

TIS-ANN-80: Remote LCD annunciator that mimics the information displayed on the FACP's LCD display. Recommended wire type is unshielded. (see *DA-60738*).

ANN-LED: Annunciator Module provides three LEDs for each zone: Alarm, Trouble and Supervisory. Ships with red enclosure (see *DF-60241*).

ANN-RLED: Provides alarm (red) indicators for up to 30 input zones or addressable points (see *DF-60241*).

ANN-RLY: Relay Module, which can be mounted inside the cabinet, provides 10 programmable Form-C relays (see *DF-52431*).

ACS-LED Zone Series: LED-type fire annunciators capable of providing up to 99 software zones of annunciation. Available in increments of 16 or 32 points to meet a variety of applications.

ACS-LDM Graphic Series: Lamp Driver Module series for use with custom graphic annunciators.

LCD-80F Annunciator: 80-character, backlit LCD-type fire annunciators capable of displaying English-language text. Up to 32 LCD-80F annunciators may be connected to the EIA-485 terminal mode serial interface on the Unimode 9600UDLS motherboard.

NOTE: For more information on **Compatible Annunciators** for use with the Unimode 9600UDLS, see the following data sheets (document numbers) *ACM-8RF (DA-47043)*, *ACS/ACM Series (DA-46895)*, *LDM Series (DA-47027)*, *LCD-80F (DF-52185)*.

Wiring Requirements

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

SYSTEM SPECIFICATIONS

System Capacity

- Intelligent Signaling Line Circuits..... 1 expandable to 2
- Intelligent detectors 159 per loop
- Addressable monitor/control modules 159 per loop
- Programmable software zones 99
- ANN-BUS devices 8
- ACS Annunciators 32
- LCD Annunciators..... 32

Electrical Specifications

- Primary input power:
120 VAC, 50/60 Hz, 3.0 A.
240 VAC, 50 Hz, 1.5 A.
- Battery: 27.6 VDC @ 1.0 A (max).
Maximum battery charger capacity: 26 AH.
Minimum battery: 12 AH.
Unimode 9600UDLS cabinet holds maximum of two 18 AH batteries.
- Communication Loop: 24 VDC nominal, supervised and power-limited.
- Notification Appliance Circuits: terminal block provides connections for four Style Y (Class B) or two Style Z (Class A) NACs.
Maximum signaling current per circuit: 3.0 amps special application, 300mA regulated.
End-of-Line Resistor: 4.7 K ohms, ½ watt (P/N 71252 UL listed) for Style Y (Class B) NAC.
Supervised and power-limited.
Refer to panel documentation and *Unimode Device Compatibility Document* for listed compatible devices.
- Two Programmable Form-C Relays and One Fixed Trouble Form-C Relay: Contact rating: 2.0 A @ 30 VDC (resistive) 0.5 A @ 30 VAC (resistive).
- Four-wire Resettable Special Application Power (24 VDC nominal): Up to 1.5 A for powering four-wire smoke detectors. Power-Limited, non-supervised.
Refer to *Unimode Device Compatibility Document* for listed compatible devices.
- Non-resettable Special Application Power #1 (24VDC nominal) TB3, Terminals 3 (+) & 4 (-):
Maximum ripple voltage: 10 mV_{RMS}
Total DC current available from each output is up to 1.5 A.
Power-limited, non-supervised.
- Non-resettable Special Application Power #2 (24VDC nominal) TB3, Terminals 5 (+) & 6 (-):
Maximum ripple voltage: 10 mV_{RMS}
Total DC current available from each output is up to 1.5 A.
Power-limited, non-supervised.

NOTE: Although each Special Application power output can deliver 1.5 A individually, the total power output from these circuits cannot exceed 1.5 A in standby. The total Alarm output for all Special Application power and NAC circuits cannot exceed 7 A.

Cabinet Specifications

Door: 19.26" (48.92 cm.) high x 16.82" (42.73 cm.) wide x 0.67" (1.70 cm.) deep. **Backbox:** 19.00" (48.26 cm.) high x 16.65" (42.29

cm.) wide x 5.21" (13.23 cm.) deep. **Trim Ring (TR-CE):** 22.00" (55.88 cm.) high x 19.65" (49.91 cm.) wide.

Shipping Specifications

Dimensions: 20.00" (50.80 cm) high, 22.5" (57.15 cm) wide, 8.5" (21.59 cm) deep. **Weight:** 27.3 lbs (12.38 kg).

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 (noncondensing) 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.

Agency Listings and Approvals

The listings and approvals below apply to the Unimode 9600UDLS 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.

- **FM APPROVED:** to UL ANSI 864
- **CSFM:** 7165-1574:206
- **IBC 2012, IBC 2009, IBC 2006, IBC 2003, IBC 2000** (Seismic).
- **CBC 2007** (Seismic)

NFPA Standards

The Unimode 9600UDLS control panel complies with the following NFPA 72 Fire Alarm Systems requirements:

- **LOCAL** (Automatic, Manual, Waterflow and Sprinkler Supervisory).
- **AUXILIARY** (Automatic, Manual and Waterflow) (requires 4XTMF).
- **REMOTE STATION** (Automatic, Manual and Waterflow) (Requires 4XTMF where DACT-UD2 is not accepted.)
- **PROPRIETARY** (Automatic, Manual and Waterflow).
- **CENTRAL STATION** (Automatic, Manual and Waterflow, and Sprinkler Supervised).
- **OT (Other Technologies-PSDN)** For use with IPDACT.

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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.



Country of Origin: USA

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