Simplex

*UL, ULC, CSFM Listed; FM, NYC Fire Dept Approved**

**Datasheet**

4007ES Fire Control Units

4007ES Hybrid, Fire Detection and Control Unit with Addressable and/or Conventional Initiation

## Features

**Compatible with Simplex ES Net and 4120 fire alarm networks**

**Satisfies a variety of new and retrofit applications**

**4.3 in. (109 mm) diagonal color touchscreen display:**

- Provides detailed system status and point information
- Supports dual language selection, including unicode character languages
- A custom background display appears when operation is normal

**Eight point zone/relay module:**

- Each point is selectable as an IDC input or Relay output, Class A IDCs require two points (one out and one return); one module is standard and you can field install up to three additional modules for a total of four 8 point zone/relay modules for each system
- You can configure each point on the IDC/Relay module as a control relay rated 2 A at 30 VDC (resistive) as either normally open or normally closed
- Power comes directly from the power supply or through the optional 25 VDC Regulator Module
- You can select the IDC end-of-line (EOL) resistor value from a wide range of resistance values for retrofit convenience

**Electrically isolated IDNet 2 addressable initiating device SLC:**

- Provides built-in short circuit isolation for monitoring and control of TrueAlarm analog sensors and IDNet communications monitoring and control devices; for use with either shielded or unshielded, twisted or untwisted single pair wiring; outputs are Class A or Class B
- Standard panel signaling line circuit (SLC) provides up to 100 addressable points; optional additional loop expansion modules provide an additional isolated loop with short circuit isolation for the IDNet 2 channel; each loop expansion module also provides an additional 75 addressable points

**Power supply:**

- Four notification appliance circuits (NACs) selectable as Class A or Class B with 6 A total available current
- You can select the NAC EOL resistor value from a wide range of resistance values for retrofit convenience
- Additional notification power capacity is available using the 4009 IDNet NAC Extender
- Battery backup charging of up to 33 Ah; up to 18 Ah for cabinet-mounted batteries and up to 33 Ah for batteries mounted close-nippled remote battery cabinet

**General mechanical:**

- Red or platinum cabinet; rated NEMA 1 and IP30

**4007ES Listings reference:**

- UL 864 - Control Units, System (UOJZ); Control Unit Accessories, System, Fire Alarm (UOXX); Control Units, Releasing Device Service (SYZV)
- UL 2017 - Emergency Alarm System Control Units (CO detection), (FSZI)
- ULC-S559 - Central Station Fire Alarm System Units (DAYRC)
- ULC-S527 - Control Units, System, Fire Alarm (UOJZC); Control Unit Accessories, System, Fire Alarm (UOXXC); Control Units, Releasing Device Service (SYZVC)




**Figure 1: 4007ES Hybrid Unit front view**

**Software feature summary:**

- Current and previous panel configuration maintained in on-board memory
- An internal Ethernet service port is available for service computer connections to perform configuration updates, downloads and uploads; report downloads, and update system software
- Internal USB interface allows a memory stick to store job revisions, update revised jobs and panel software, and save detailed system reports from the panel

**Optional modules and connections include:**

- Fire alarm network interface card (NIC) for ES Net or 4120 network
- Peer-to-Peer network communications, supports either Class B or Class X operation
- Point or Event DACT assembly for IP Communicators
- Up to two additional IDNet 2 addressable device output loop connections with short circuit fault protection and with 75 additional point capacity each
- Front mounted 48 LED annunciator with custom label inserts; LEDs are programmable for up to 24 IDC zones of alarm and trouble annunciation or other custom annunciation requirements
- Remote LED annunciator support through remote user interface (RUI) communications port for use with UTP wiring
- Dual RS-232 ports for printer, PC annunciator or third party interface
- TrueInsight Remote Gateway
- Alarm relays and auxiliary relays
- City connections, with or without disconnect switch
- 4009 IDNet NAC Extenders to extend NAC capability for power and distance
- Battery brackets for seismic area protection; see Mechanical description for more information

* This product has been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7165-0026:0378 for allowable values and/or conditions concerning material presented in this document. NYC Fire Dept COA #6191A. At the time of publication only UL and ULC listings are applicable to ES Net network products. Additional listings may be applicable; contact your local product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Fire Protection Products.



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## Introduction

4007ES Series Fire Detection and Control Units provide extensive installation, operator, and service features with point and module capacities suitable for a wide range of system applications. Panels can be configured for stand-alone or networked fire control operation. The convenient and intuitive color touchscreen provides easy access for typical system response actions and for detailed system review or configuration updates with password control to limit user access.

Standard conventional IDCs and addressable IDNet 2 communications provide flexibility for both new and retrofit systems. IDC and NAC EOL resistor values are selectable to match a wide range of existing initiating device circuits and notification appliance circuits.

## ES panel compatibility with ES Net

Simplex ES Network (ES Net) is a next generation IP-based fire network that uses industry standard network technology and infrastructure, and allows for simplified network upgrades, easy terminal connectivity and IP file transfer between nodes, and advanced network diagnostics.

You can upgrade ES fire alarm control units (FACUs) to operate on an ES network by adding an ES Net NIC to the panel.

To upgrade an existing 4120 network to ES Net, you must replace all of the 4120 NIC cards on the network loop with ES Net NICs.

**Note:** ES NICs and 4120 NICs cannot be mixed on the same network loop.

For more detailed information on ES Net, refer to data sheet *S4100-0076*, and talk to your local Simplex product supplier.

## Operator interface

### Convenient status information

With the locking door closed, the glass window allows viewing of the display status LEDs. The user interface is a 4.3 in. (109 mm) diagonal color touchscreen LCD with separate status LEDs, see Figure 2.

LED indicators describe the general category of activity being displayed and the LCD provides more detail. Authorized user can unlock the door to gain access to the control functions and scroll through the display for additional detail.

## Operator interface and software features

- Convenient and detailed operator information is easily accessible using a logical, menu-driven touchscreen display with password access control
- Multiple automatic and manual diagnostics for maintenance reduction
- Alarm and Trouble History Logs (up to 1000 entries for each, 2000 total events) are available for viewing from the display or for printing to a connected printer, or downloaded to a service computer
- Module level ground fault searching assists installation and service by locating and isolating modules with grounded wiring
- WALKTEST silent or audible system test performs an automatic self-resetting test cycle and supports up to eight WALKTEST groups
- Install Mode allows grouping of multiple troubles for uninstalled modules and devices into a single trouble condition (typical with future phased expansion); with future equipment and devices grouped into a single trouble, operators can more clearly identify events from the commissioned and occupied areas

## Touchscreen display with LED status indicators

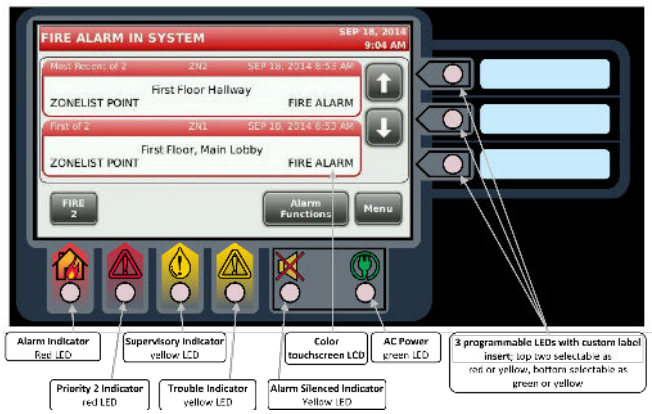
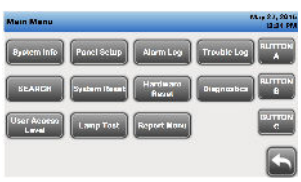



**Figure 2: Touchscreen display with LED status indicators**

## Operator screen reference

**Main Menu** screen provides easy navigation to the function required. Buttons A, B, and C have programmable functions.



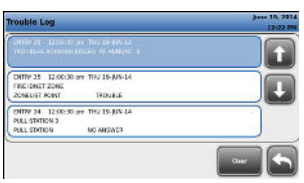

**System Alarm** screen identifies active alarms with custom labels displayed. Use the arrows to allow navigation through the list.



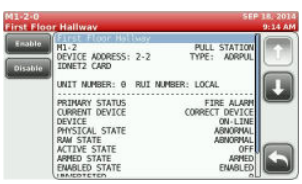

**System Trouble** screen identifies active troubles with custom labels displayed, arrows allow navigation through the list.




**Trouble Log** screen allows review of past troubles with time stamp and point details shown.




**Point Information** screen allows review of point details, arrows allow navigation through the information.




**User Access Login** screen controls access to panel operations as determined per panel.




## Mechanical description

- Locking door with polycarbonate window
- Latching front panel assembly swings forward for convenient internal access
- Smooth box surfaces are provided for locally cutting conduit entrance holes exactly where required
- Modules are power-limited except as noted, such as relay modules
- Battery compartment (bottom) accepts two batteries, up to 18 Ah, to be mounted within the cabinet without interfering with module space;



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charger capacity is up to 33 Ah; for information about batteries greater than 18 Ah and external battery cabinets, see Module and accessories selection information

- Cabinet assembly design has been seismic tested and is certified to IBC and CBC standards as well as to ASCE 7 categories A through F, requires battery brackets, refer to data sheet *S2081-0019* for more information

## IDNet 2 addressable device control

The 4007ES Hybrid provides an IDNet 2 addressable initiating device signaling line circuit (SLC) that supervises wiring connections and the individual device communications status on the SLC. With 2-wire IDNet 2 SLCs, initiation, monitoring, and control devices such as manual fire alarm stations, TrueAlarm sensors, control relays, and sprinkler waterflow switches can communicate their identity and status and receive fire alarm system control. Additional addressable interface modules include circuit isolators, conventional IDC zone adapters, and interface to other system circuits such as fans, dampers, and elevator controls.

## IDNet 2 addressable device operation

Each addressable device on the IDNet 2 communication channel is continuously interrogated for status condition such as: normal, off-normal, alarm, supervisory, or trouble. Both Class B and Class A operation is available. Sophisticated poll and response communication techniques ensure supervision integrity and allow for T-tapping of the circuits for Class B operation. Devices with LEDs pulse the LED to indicate receipt of a communications poll and can be turned on steady from the panel. With addressable devices, the location and status of the connected device is monitored, logged, and displayed on the operator interface LCD with each device having its own 40-character custom label for precise identification.

## TrueAlarm addressable sensor operation

Addressable initiating device communications include operation of TrueAlarm smoke and temperature sensors. Smoke sensors transmit an output value based on their smoke chamber condition and the CPU maintains a current value, peak value, and an average value for each sensor. Status is determined by comparing the current sensor value to its average value. Tracking this average value as a continuously shifting reference point filters out environmental factors that cause shifts in sensitivity.



**Figure 3: TrueAlarm Photo Sensor with base**



**Figure 4: TrueAlarm Photo/ Heat Sensor in CO base**

### Programmable sensitivity

Programmable sensitivity of each sensor is selectable at the control panel for different levels of smoke obscuration, shown directly in percent, or for specific heat detection levels. To evaluate whether the sensitivity should be revised, the peak value is stored in memory and can be easily read or downloaded as a report and compared to the alarm threshold directly in percent.

### CO sensor bases

CO sensor bases combine an electrolytic CO sensing module with a TrueAlarm analog sensor to provide a single multiple sensing assembly using one system address. You can enable and disable the CO sensor, and you can use it in LED/Switch modes and custom control. Refer to data sheet *S4098-0052* for more details.

### TrueAlarm heat sensors

You can select TrueAlarm heat sensors for fixed temperature detection, with or without rate-of-rise detection. Utility temperature sensing is also available, typically to provide freeze warnings or alert to HVAC system problems. Readings are selectable as either Fahrenheit or Celsius.

### TrueSense early fire detection

Multi-sensor 4098-9754 provides photoelectric and heat sensor data using a single IDNet address. The panel evaluates smoke activity, heat activity, and their combination, to provide TrueSense early detection. For more details on this operation, refer to data sheet *S4098-0024*.

## Diagnostics and default device type

### Sensor status

TrueAlarm operation allows the FACU to automatically indicate when a sensor is almost dirty, dirty, and excessively dirty. The NFPA 72 requirement for a test of the sensitivity range of the sensors is fulfilled by the ability of TrueAlarm operation to maintain the sensitivity level of each sensor. CO sensors track their 10 year active life status providing indicators to assist with service planning. Indicators occur at: 1 year, 6 months, and end of life.

### Modular TrueAlarm sensors

TrueAlarm sensors use the same base and different sensor types (smoke or heat sensor) and can be easily interchanged to meet specific location requirements. This allows intentional sensor substitution during building construction when conditions are temporarily dusty. Instead of covering smoke sensors causing them to disable, heat sensors may be installed without reprogramming the FACU. The FACU will indicate an incorrect sensor type, but the heat sensor will operate at a default sensitivity to provide heat detection for building protection at that location.

## IDNet 2 addressable channel capacity

The 4007ES Hybrid provides an isolated output IDNet 2 SLC that supports up to 250 addressable monitor and control points intermixed on the same pair of wires. 250 total requires two 4007-9803 IDNet 2 loop expansion modules.

**Table 1: IDNet 2 SLC wiring specifications**

| Specification | | Rating |
|---|---|---|
| **Maximum distance from control panel for each device load** | 0 to 125 | 4000 ft (1219 m); 50 ohms |
| | 126 to 250 | 2500 ft (762 m); 35 ohms |
| **Total wire length allowed with T-taps for Class B wiring** | | Up to 12,500 ft (3.8 km); 0.60 µF |
| **Maximum capacitance between IDNet 2 channels** | | 1 µF |
| **Loading for each device** | | 0.8 mA supv., 1 mA alarm; 2 mA for each activated device LED |
| **Wire type and connections** | | Shielded or unshielded, twisted or untwisted wire, see note. |
| **Connections** | | Terminal blocks for 18 AWG to 12 AWG |
| Compatibility includes: IDNet communicating devices and TrueAlarm sensors including QuickConnect and QuickConnect2 sensors; see data sheet *S4090-0011* for additional reference.<br>**Note:** Some applications may require shielded wiring. Review your system with your local Simplex product supplier. | | |



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## Power supply output and zone/relay module details

### Power supply output details

- RUI Communications controls up to 10 remote devices at up to 2500 ft (762 m) for single run, or 10,000 ft (3048 m) total if wiring is Class B and T-tapped; selectable as Class B or Class A
- Compatible RUI remote equipment includes: 4606-9202 and 4606-9205 Color Touchscreen Annunciators (up to 6 total), 4100 Series 24 I/O and LED/Switch modules, 4602 Series LED/Switch and I/O Annunciator modules, including 4602-9101 Status Command Units (SCU), and 4602-9102 Remote Command Units (RCU)
- IDNet 2 SLC output provides electrically isolated Class B or Class A communication; standard capacity is up to 100 addressable points with expansion for up to 250 points using up to two 4007-9803 IDNet 2 Loop Expansion Modules; as described in IDNet 2 addressable channel capacity
- 6 A output rating, including current for: special application notification appliances; IDNet devices; module currents; and auxiliary output current (battery charging, CPU, and power supply current does not subtract from the 6 A); when NACs are controlling Regulated 24 DC Appliances, total NAC current available is 3 A
- Four on-board Class B/Class A NACs, rated 3 A each for Special Application appliances; selectable for SmartSync horn and strobe control, or strobe synchronization; rated 2 A each for Regulated 24 DC appliances
- NAC EOL resistor values are selectable as: 10 kohms, 3.9 kohms, 4.7 kohms, 5.1 kohms, 5.6 kohms, or 15 kohms
- Battery charger is dual rate, temperature compensated, and charges up to 18 Ah sealed lead-acid batteries mounted in the battery compartment, and charges up to 33 Ah batteries mounted in an external cabinet
- Battery and Charger Monitoring includes battery charger status and low or depleted battery conditions; status information provided to the master controller includes analog values for: battery voltage, charger voltage and current, actual system voltage and current, and NAC current
- Low Battery Voltage Cutout is selectable when required (required for ULC Listing applications)
- 2 A Auxiliary Output (AUX/SNAC) can be selected either as resettable auxiliary power of 2 A @ 24 VDC, or selected to be a simple NAC (SNAC) for sounder base power, four-wire detector power, or door holder power

### Zone/relay module details

- Select as IDC or Relay; configure up to eight Class B IDCs, or up to four Class A IDCs; or up to eight Relay outputs rated 2 A resistive @ 30 VDC (N.O. or N.C.); or combinations of IDCs and Relays; each zone is separately configurable as an IDC or Relay output
- IDC Support. Each IDC supports up to 30, two-wire devices
- IDC EOL resistor values are selectable as: 3.3 kohms, 2 kohms, 2.2 kohms, 3.4 kohms, 3.9 kohms, 4.7 kohms, 5.1 kohms, 5.6 kohms, 6.34/6.8 kohms, and 3.6 kohms + 1.1 kohms; see instructions for more details



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## 4007ES mounting and module location reference

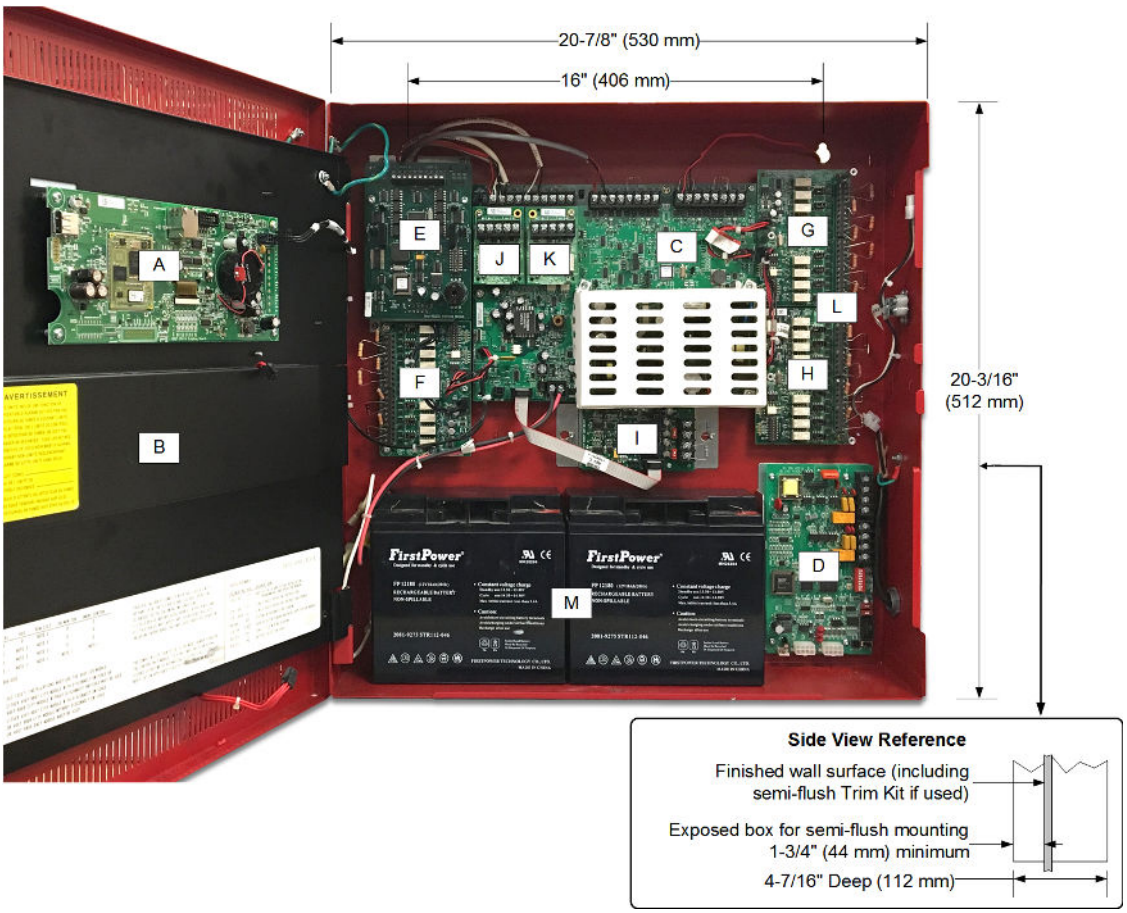



**Figure 5: 4007ES mounting and module location reference**

**Table 2: Module locations**

| Key | Description |
|---|---|
| A | CPU and user interface assembly. |
| B | Location for optional 4007-9805 LED module. |
| C | Power Supply Assembly. |
| D | 4007-9806 SDACT location.<br><br>**Note:** The SDACT includes a 650-1838 flat mounting bracket (available separately). Some pre-existing systems with an angled SDACT bracket will need to be replaced with the flat mounting bracket when an NIC is installed. |
| E | Location for 4007-9801 Zone/Relay Module, 4007-9812 Dual RS-232 Interface, 4007-9804 Dual Class A IDNAC Isolator (DCAI), or (as shown) 4007-9802 25 V Regulator Module |
| F | Primary location for 4007-9801 Zone/Relay Module, or 4190-6106 TrueInsight Remote Service Gateway. |
| G | Location for additional 4007-9801 Zone/Relay Module. |
| H | Location for additional 4007-9801 Zone/Relay Module. |
| I | 4007-9807 or 4007-9808 City Circuit Module, or 4007-9809 Relay Module. |
| J | 4007-9803 IDNet 2 Loop Expansion Modules, maximum of two (two are shown). |
| K | 4007-9803 IDNet 2 Loop Expansion Modules, maximum of two (two are shown). |
| L | Block L is an additional block that sits on spacers above block G and H. You can mount the 4007-9810 or 4007-9817 NIC in block L with or without modules mounted below it in blocks G and H. When you use fiber media cards and an SDACT is present, the SDACT requires a 650-1838 flat mounting bracket, ordered separately. |
| M | Battery location for up to 18 Ah batteries.<br><br>**Note:** No conduit entry or wiring in this area, 14 7/8 in. (378 mm) wide. |

**Note:** A system ground must be provided for Earth Detection and transient protection devices. This connection shall be made to an approved, dedicated Earth connection per NFPA 70, Article 250, and NFPA 780.



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## Product selection

**Table 3: 4007ES Hybrid product selection**

| Model | Color | Description | Supv. | Alarm |
|---|---|---|---|---|
| 4007-9101 | Red | 4007ES Hybrid with four conventional NACs, 6 A output power supply/battery charger and one IDNet 2 SLC for up to 100 addressable points | 145 mA | 190 mA |
| 4007-9101BA | | | | |
| 4007-9102 | Platinum | | | |
| 4007-9102BA | | | | |
| Both models above include: | | One 4007-9801 Zone/Relay Card | 83 mA | 295 mA |

**Note:**

- Models with (BA) are available assembled in the USA.
- The current draw for the 4007ES Hybrid Unit (without included modules) does not subtract from the 6 A of power available for optional modules and external loads. For power supply loading calculations include all modules plus all external loads and exclude the 4007ES Hybrid Unit current. For battery standby calculations include all modules, all external loads, and the base 4007ES Hybrid Unit current.

## Module and accessories selection information

**Table 4: Factory programming options**

| Model | Description |
|---|---|
| 4007-8810 | Factory Programming (select) |
| 4007-0831 | Custom Labels and Programming (requires 4007-8810) |

**Table 5: Field installed optional modules**

| Model | Description | | Supv. | Alarm |
|---|---|---|---|---|
| 4007-9801 | Eight Point Zone/Relay Module, each point is selectable as an IDC input or Relay output, Class A IDCs require two points (one out and one return); one module is included as standard, select up to three additional. Alarm current shown is for eight Class B IDCs using 3.3K EOL resistors with four IDCs in alarm and four IDCs in standby. Supervisory current shown is for all eight IDCs in standby. Detector current is added separately. Refer to ***579-1103 Zone/Relay Module Installation Instructions*** for more information. | | 83 mA max | 295 mA max |
| 4007-9802 | 25 VDC Regulator Module; 2 A maximum output; use to power Zone/Relay modules connected to initiating devices requiring nominal 25 VDC voltage. Refer to technical publication ***579-832 2-Wire Detector Compatibility Chart*** for application details. | with 1 module | 190 mA | 445 mA |
| | | with 2 modules | 290 mA | 801 mA |
| | | with 3 modules | 390 mA | 1156 mA |
| 4007-9803 | IDNet 2 Loop Expansion Module; provides an additional isolated loop with short circuit isolation to the existing IDNet 2 channel, also provides an additional 75 addressable points to the IDNet 2 channel capacity, maximum of two | | NA | NA |
| 4007-9805 | Panel Mounted 48 LED Status Annunciator Module; provides 24 Yellow LEDs, 20 Red LEDs, and four Red/Green LEDs that are programmable for up to 24 IDC zones of alarm and trouble annunciation, or as required for custom annunciation requirements | no LEDs on | 10 mA | 10 mA |
| | | with LEDs on | 1.75 mA per LED, 105 mA max | |
| 4007-9806 | SDACT Module for Point or Event Reporting<br>Order 2080-9047 connection cables as required; see Table 9 | | 30 mA | 40 mA |
| 4007-9807 | City Circuit Module with disconnect switch | | 20 mA | 36 mA |
| 4007-9808 | City Circuit Module without disconnect switch | | 20 mA | 36 mA |
| 4007-9809 | Relay Module; relays for Alarm, Supervisory, and Trouble; rated 2 A resistive @ 32 VDC | | 15 mA | 37 mA |
| 4007-9812 | Dual RS-232 Interface Module; Compatible with Simplex remote printer, PC annunciator or third party interface (two ports/connections maximum) | | 60 mA | 60 mA |

**Table 6: Field installed optional network modules**

| Model | Description | | Supv. | Alarm |
|---|---|---|---|---|
| 4190-8001 | TrueInsight remote service gateway module and programming selection | Required selection | 62 mA | 73 mA |
| 4190-6106 | TrueInsight remote service gateway module installation kit; includes module and harness; configured for dynamic IP address operation unless ordered with 4190-4016 | | | |
| 4190-4016 | TrueInsight remote service gateway module for fixed IP Addressing; optional, select if application will use fixed IP address | | | |

**Note:** Refer to data sheet ***S4100-0063*** for additional TrueInsight service gateway details



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## Network interface and network media card product selection

4007ES FACUs are compatible with Simplex ES Net network or 4120 network fire alarm products.

- Refer to data sheet *S4100-0076* for additional information on compatible ES Net fire alarm products.
- Refer to data sheet *S4100-0056* for additional information on compatible 4120 network fire alarm products.
- Refer to data sheet *S4100-0061* for additional information on the Building Network Interface Card (BNIC).

**Table 7: Batteries**

| Model | Capacity | Battery mounting details |
|---|---|---|
| 2081-9272 | 6.2 Ah | 12 V Batteries for cabinet mounting; select one battery model per system standby requirements; order quantity of two; to be wired in series for 24 VDC |
| 2081-9274 | 10 Ah | |
| 2081-9288 | 12.7 Ah | |
| 2081-9275 | 18 Ah | |
| 2081-9287 | 25 Ah | Requires 4009-9801 external battery cabinet, see Table 8 |
| 2081-9276 | 33 Ah | |

**Table 8: Battery cabinets**

| Model | Color | Capacity | Dimensions (H x W x D) | Description |
|---|---|---|---|---|
| 4009-9801 | Beige | For up to 33 Ah batteries, see note | 13 1/2 in. x 16 1/4 in. x 5 3/4 in (413 mm x 343 mm x 146 mm) | External battery cabinet without charger for mounting close-nippled to the fire alarm control unit cabinet; includes locking solid door. Use battery harness 734-304 for a NAC power supply and harness 734-303 for an IDNAC power supply; battery harnesses are shipped with the panel. |

**Note:** 33 Ah capacity requires 2081-9276 **square** 33 Ah batteries.

**Table 9: Accessories**

| Model | Description |
|---|---|
| 2080-9047 | DACT cable, 14 ft (4.3 m) long, RJ45 plug one end, spade lugs on the other; order one per phone line connection required |
| 2975-9812 | Red semi-flush box trim; 1 7/16 in. (37 mm) wide, four corners and trim pieces for top, bottom, and sides |
| 2975-9813 | Platinum semi-flush box trim; 1 7/16 in. (37 mm) wide, four corners and trim pieces for top, bottom, and sides |
| 2081-9031 | Platinum semi-flush box trim; 1 7/16 in. (37 mm) wide, four corners and trim pieces for top, bottom, and sides |
| 4081-9002 | 3.3 kohms, 1 W EOL resistor for Class B non-addressable initiating zones |
| 4081-9018 | 10 kohms, 1 W EOL resistor harness for non-addressable NACs |

## General specifications

**Table 10: General specifications**

| Specification | | Rating | |
|---|---|---|---|
| **Input power** | 120 VAC input | 2 A maximum @ 102 VAC to 132 VAC, 50/60 Hz | |
| | 240 VAC input | 1 A maximum @ 204 VAC to 264 VAC, 50/60 Hz | |
| **4007ES Hybrid power supply output ratings** | Power supply output rating | Including module currents and auxiliary power outputs; 6 A total | Output switches to battery backup during mains AC failure or brownout conditions |
| | NAC ratings | 3 A each for Special Application Appliances | |
| | | 2 A each for Regulated 24 DC Appliances | |
| | Auxiliary power tap | 2 A maximum, 24 VDC nominal (19.5 VDC to 31.1 VDC) | |
| **Special application non-addressable appliances** | | Simplex horns, strobes, and combination horn/strobes and speaker/strobes; contact your Simplex product representative for compatible appliances | |
| **Regulated 24 DC non-addressable appliances** | | Power for other UL listed appliances; use associated external synchronization modules where required | |
| **Battery charger ratings (sealed lead-acid batteries)** | Battery capacity range | UL and ULC listed for battery charging of 6.2 Ah up to 33 Ah; batteries larger than 18 Ah require a remote battery cabinet | |
| | Charger characteristics and performance | Temperature compensated, dual rate, recharges depleted batteries within 48 hours per UL Standard 864; to 70% capacity in 12 hours per ULC Standard S527 | |

**Table 11: Custom background and environmental details**

| Item | | Description |
|---|---|---|
| **Custom background display details** | | Supported file types: JPG, BMP, GIF, and PNG<br>Recommended image type is JPG, recommended image size is 480 x 240, and the file size limit is 100 kb |
| **Environmental** | Operating temperature | 32°F to 120°F (0°C to 49°C) |
| | Operating humidity | Up to 93% RH, non-condensing @ 90°F (32°C) maximum |



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## Additional 4007ES and network product reference data sheets

**Table 12: Additional 4007ES and network product reference data sheets**

| Title | Document number |
|---|---|
| Serial DACT (SDACT) for 4100ES, 4010ES, 4007ES | S2080-0009 |
| Seismic Battery Brackets Reference | S2081-0019 |
| 4003EC Voice Control Unit | S4003-0002 |
| 4007ES Panels with Addressable Notification | S4007-0002 |
| 4007ES Extinguishing Release Applications | S4007-0003 |
| 4009 IDNet NAC Extender | S4009-0002 |
| 4009 IDNAC Repeater | S4009-0004 |
| External 110 Ah Battery Charger for 4100ES, 4010ES | S4081-0002 |
| Graphic I/O Modules for 4100ES, 4010ES, 4007ES | S4100-0005 |
| Interface to VESDA Air Aspiration Detection Systems | S4100-0026 |
| NDU with SPS Power Supplies for 4120 Network | S4100-0036 |
| InfoAlarm Command Center with SPS Power Supplies | S4100-0045 |
| Multiple Signal Fiber Optic Modems for 4120 Networks | S4100-0049 |
| BACpac Ethernet Module | S4100-0051 |
| 4120 Network Products and Specifications | S4100-0056 |
| Building Network Interface Card (BNIC) | S4100-0061 |
| TrueInsight Remote Gateway | S4100-0063 |
| ES Net Network Products and Specifications | S4100-0076 |
| NDU with SPS Power Supplies for ES Net | S4100-0077 |
| InfoAlarm Command Center with EPS Power Supplies | S4100-0101 |
| NDU with EPS Power Supplies for 4120 Network | S4100-0102 |
| NDU with EPS Power Supplies for ES Net | S4100-0104 |
| PC Annunciator | S4190-0013 |
| TrueSite Workstation | S4190-0016 |
| TrueSite Incident Commander | S4190-0020 |
| 24-Pin Dot Matrix Fire Alarm System Remote Printer | S4190-0027 |
| SCU/RCU Annunciators | S4602-0001 |
| 4606 Series Color Touchscreen LCD Annunciators | S4606-0003 |

## 4007ES Hybrid additional reference




**Figure 6: 4007ES Hybrid with optional 48 LED Annunciator Module (4007-9805)**




**Figure 7: 4606-9205 (Platinum) Color LCD Touchscreen Remote Annunciator**




**Figure 8: 4606-9202 (Red) Color LCD Touchscreen Remote Annunciator**

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