

UL, ULC Listed  
FM Approved\*

Annunciators  
Graphic Control Modules,  
4100 Series

## FEATURES

- **Interface modules for LED and switch control of custom graphic annunciator panels**
  - For use with Simplex 4100/4120 and 4020 series fire alarm control panels
  - (refer to details on page 2 for compatibility)
- **Multiple mounting options are available:**
  - Semi-flush or surface mount cabinets, in beige or red, with or without glass door
  - Plate-mounted for mounting in cabinet by others
  - Interface modules can be mounted in the same cabinet as graphic panel or mounted nearby
- **Operation and status supervision:**
  - Supervised communications require a single, twisted, shielded wire pair to the fire alarm control panel (power is supplied via a second wire pair)
  - Multiple annunciator module types can be connected to same communications wiring

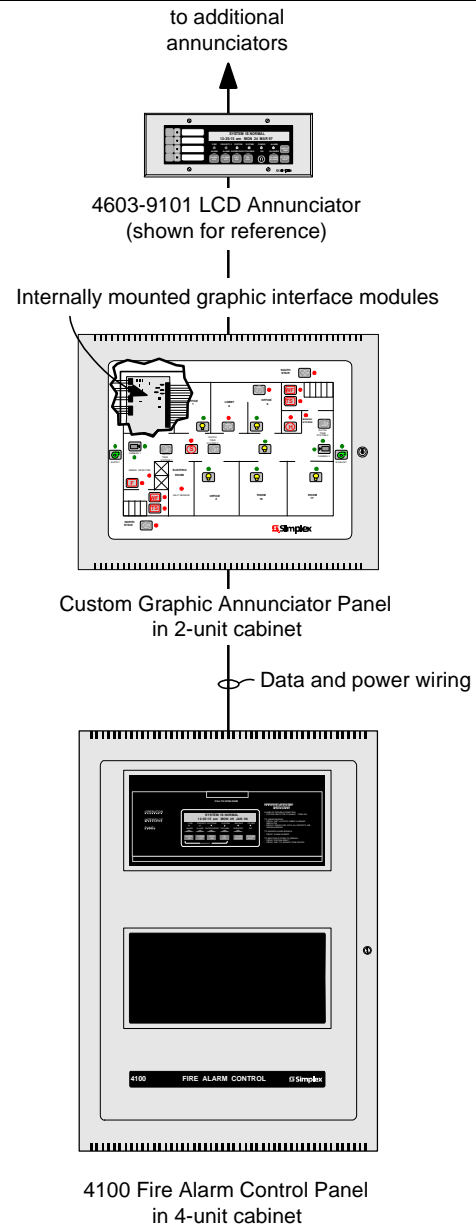
## DESCRIPTION

These remote annunciator graphic control modules complement Simplex 4100/4120 and 4020 series fire alarm control panels by providing LED drivers and switch inputs to allow custom graphic displays to be designed for specific facility requirements. Wiring is minimized since communications require a single twisted, shielded pair that also provides supervision. In the event of loss of communications, the trouble will be displayed at the fire alarm control panel and can also be identified at the remote annunciator if desired.

For packaging flexibility, these modules are plate-mounted, allowing compatibility with vended graphics assemblies. These modules also provide convenient terminal block wiring connections and use compact ribbon cable connectors for multiple module interconnection.

## SPECIFICATIONS

Operating Voltage .....24 VDC from fire alarm system  
 Operating Current ..... refer to chart on page 3  
 Communications Wiring Distance.....3000 ft (914 km)  
 Humidity ..... 85% Relative @ 86° F (30° C)  
 Operating Temperature... 32° F to 120° F (0° C to 49° C)



4100 Fire Alarm Control Panel Shown  
Connected to a Remote Graphic Annunciator  
and a Remote LCD Annunciator\*\*

\* Applicable FM approval information is available on request.

\*\* Refer to Simplex data sheet S4100-0013 and S4020-0003 for additional information on communication capabilities with remote annunciator modules.

## 4100 SERIES GRAPHIC CONTROL MODULES

These control modules are compatible with the Simplex 4100/4120 and 4020 series fire alarm control panels except as noted. For additional information, refer to Simplex field wiring diagram 841-802.

### 4100-7401, 24 Point I/O Graphic Module:

- **24 Points**, selectable as either a switch input or a lamp/relay driver output
- **Switch monitoring includes:** unsupervised, supervision for opens, supervision for opens or shorts, and supervised monitoring of HOA (hand/off/auto) switches
- **Switches can be** momentary or maintained, 2 position or 3 position, maximum distance is 2500 ft (762 m), or 65  $\Omega$  from the module
- **Each lamp/relay driver** is rated at 150 mA @ 24 VDC per point, inrush is current limited for compatibility with incandescent bulbs (relays need to be diode suppressed at the relay coil) maximum distance is 600 ft (183 m), or 2  $\Omega$  from the module
- **Outputs are** supervised for open circuits and can be steady on or pulse at a slow or fast rate
- **Additional inputs are** included for communicating a remote power supply trouble and for lamp testing, the module can also be configured to provide local indication of communications loss
- *Note: This module is not compatible with the Simplex 4020 series fire alarm control panel.*

### 4100-7402, 64/64 LED/Switch Controller Module:

- **Supports** up to 64 switches *and* 64 LEDs (switches are unsupervised)
- **32 LED driver outputs** are mounted on-board for direct LED connection
- **Full capacity** is achieved by using a 4100-7403, 32 Point LED Driver Module, and two 4100-7404, 32 Point Switch Modules
- **Multiplexed LED drivers provides** 40 mA peak, 5 mA average, 60 Hz rate, 12.5% duty cycle for direct LED drive and can be steady on, or slow or fast pulse
- **LEDs are supervised for** open circuits, LED and switch module connections are supervised
- **LEDs or switches can be up to** 25 ft (7.6 m) or 3  $\Omega$  from module

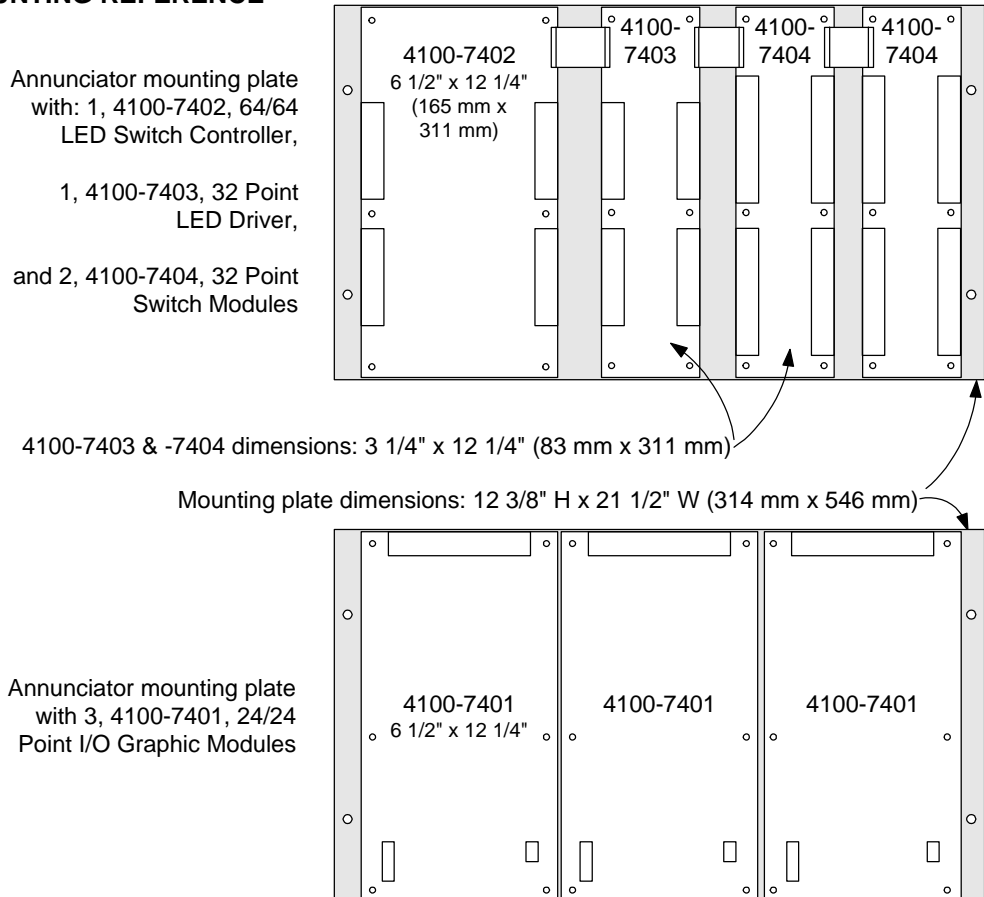
### 4100-7403, 32 Point LED Driver Module:

- **Provides an additional 32 LED drivers** for use with the 4100-7402 Controller
- **LED output is** the same as for the 4100-7402

### 4100-7404, 32 Point Switch Module:

- **Monitors** momentary or maintained, 2 or 3 position switches
- **Switch position sampling is** multiplexed at a 60 Hz rate, 12.5% duty cycle, 40 mA maximum, 5 mA average

## MODULE MOUNTING REFERENCE



## 4100 SERIES GRAPHIC ANNUNCIATOR FEATURE SELECTION

### System Type (select one)

Model	Description
4100-8401	Cabinet mounted graphic modules
4100-8402	Graphic modules only, plate mounted
4100-8904	Aftermarket addition, modules only

### Graphic Modules (as required, see mounting notes below)

Model	Description
4100-7401	24 Point I/O Graphic Module. Current requirements: <ul style="list-style-type: none"> <li>• Standby current = 42 mA + all switch loads</li> <li>• Alarm current = 78 mA + all connected lamp/LED/relay currents and all switch current</li> <li>• Switch current, unsupervised mode = 12 mA when closed, per switch</li> <li>• Switch current, supervised for open circuit mode = 5 mA open, 12 mA closed, per switch</li> <li>• Switch current, supervised for open or short mode = 4 mA open, 8 mA closed, per switch</li> <li>• Switch current, HOA mode = 12 mA "on", 8 mA "off", 4.5 mA center position</li> </ul>
4100-7402	64/64 LED Switch Controller. Current requirements: <ul style="list-style-type: none"> <li>• Standby current = 67 mA + all switch loads</li> <li>• Alarm current = 285 mA with 64 total LEDs on + all switch loads</li> <li>• Switch current = 5 mA average, "up" position, 2 1/2 mA average, "down" position</li> </ul>
4100-7403	32 Point LED Driver Module
4100-7404	32 Point Switch Input Module

### Package Size, Finish and Trim Options (select as required if 4100-8401)

Model	Description
4100-2401	2-Unit cabinet with glass door & retainer
4100-2402	4-Unit cabinet with glass door & retainer
4100-2403	6-Unit cabinet with glass door & retainer
4100-2404	2-Unit cabinet only, no door
4100-2405	4-Unit cabinet only, no door
4100-2406	6-Unit cabinet only, no door
4100-2201	Red finish option
2975-9801	Semi-flush trim option, beige, 1 7/16" wide (37 mm)
2975-9802	Semi-flush trim option, red, 1 7/16" wide (37 mm)

### Aftermarket Solid Door (for cabinet only models)

Model	Description
4100-8911	Aftermarket addition, use if solid door is required, order with cabinet only models
4100-2031	Aftermarket 2-unit solid door, beige
4100-2032	Aftermarket 4-unit solid door, beige
4100-2033	Aftermarket 6-unit solid door, beige

#### Mounting Notes:

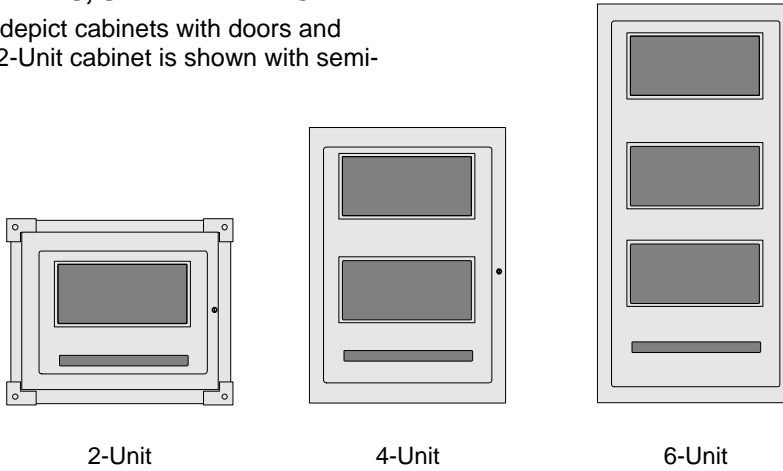
1. Refer to diagram on page 2 for panel mounting dimensions.
2. Only one 4100-7402 LED controller may be mounted per plate. The same plate can mount one 4100 -7403 and two 4100-7404 modules.
3. 4100-7401 I/O modules are mounted on separate plates, up to 3 per plate.
4. Each mounting plate requires 2 units of cabinet space (1 plate per 2-unit cabinet, 2 plates per 4-unit cabinet, 3 plates per 6-unit cabinet).

### 4100 ANNUNCIATOR CABINET DIMENSIONS

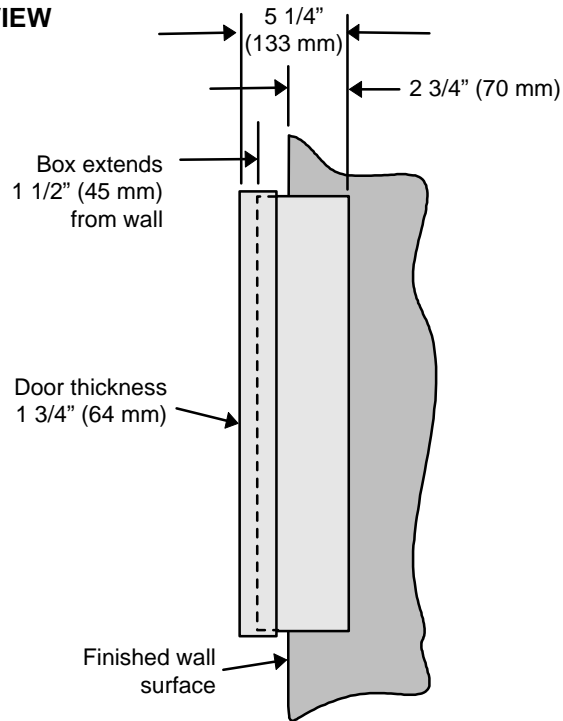
Size	Height	Cabinet Width	Cabinet Depth	Door Width
2-Unit	20 3/4" (527 mm)	25 3/4" (654 mm)	4 1/4" (108 mm)	26 3/8" (670 mm)
4-Unit	36 1/4" (921 mm)			
6-Unit	52 1/8" (1324 mm)			

### ANNUNCIATOR CABINETS, SIZE REFERENCE

Note: These drawings depict cabinets with doors and retainer panels. 2-Unit cabinet is shown with semi-flush trim.



### CABINET MOUNTING, SIDE VIEW



S4100-0005-2 2-98



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