

UL, ULC Listed;
FM, CSFM, and
MEA (NYC) Approved*

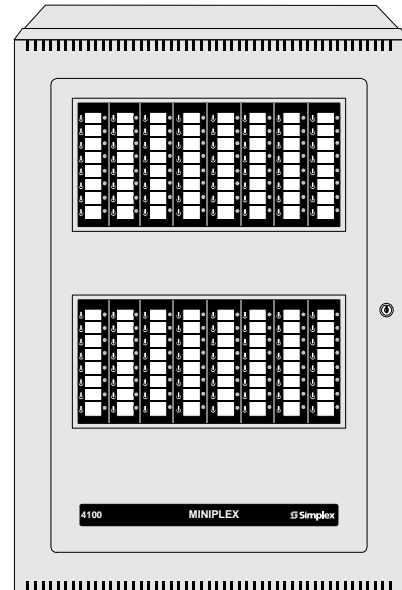
Fire Alarm Controls
4100/4120 Series
MINIPLEX™ Transponders

FEATURES

- **Provides multiplex operation when used with 4100/4120 Series MINIPLEX control panels****
 - 4100-8010 for standard fire alarm control
 - 4100-8210 for voice and sound control
- **Allows remote location of:**
 - 4100 Series amplifiers
 - Expansion power supplies
 - MAPNET II®/TrueAlarm interface modules†
 - Initiating device circuit (IDC) monitoring
 - Notification appliance circuit (NAC) operation
 - Auxiliary control circuit operation
- **Style 7 or Style 4 communications with 4100 host fire alarm control panel via twisted, shielded pair**
- **UL listed to Standard 864**
- **Outputs are power-limited** (module dependent)

OPTIONAL FEATURES

- **Module availability:**
 - MAPNET II/TrueAlarm interface modules†
 - Hard-wired initiating, notification appliance, and auxiliary control circuits
 - Voice and telephone control circuits
 - 64/64 LED/Switch controller
 - 24 Point I/O graphic interface
 - Switching power supply/charger, 8 Amp
 - 25 W or 100 W Amplifiers
 - Panel mounted printer
 - RS-232 module
 - Supports 4100 Series annunciator modules
- **Choice of 2, 4, or 6-unit cabinet with:**
 - Solid or glass door
 - Beige or red finish
 - Up to three cabinets at one MINIPLEX transponder location



4100-8019 MINIPLEX Transponder with LED/Switch Modules (mounted in a 4-unit cabinet)

INTRODUCTION

MINIPLEX transponders allow a 4100 or 4120 Series Fire Alarm Control Panel to provide multiplex system features for applications of up to 1000 monitor and/or control points and 2000 annunciator points. Using 4100 style serial communications, up to 31 distributed MINIPLEX transponder locations are possible for initiating device circuit cards, MAPNET II/TrueAlarm addressable communications interfaces, notification appliance circuit cards, LED/switch controls, auxiliary relay control cards, power supplies, and audio amplifiers.

By selecting the required combinations of modules and mounting MINIPLEX transponders at the appropriate building locations, wire quantities are significantly reduced for all monitor and control functions. Since power for the local modules is provided from the local power supply, the wiring from the control panel need only be separate twisted, shielded pairs for data, voice, and telephone.

* 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 7165-0026:160 for allowable values and/or conditions concerning material presented in this document. It is subject to re-examination, revision, and possible cancellation. Accepted for use – City of New York Department of Buildings – MEA35-93E. Additional listings may be applicable, contact Simplex for the latest status. Applicable FM approval information is available on request.

** Substituting the prefix 4120 for 4100 will add the special modifications required for 4120 network operation. Refer to data sheet S4120-0001.

† MAPNET addressable communications is protected under US Patent #4,796,025. TrueAlarm analog detection is protected under US Patent #5,155,468 and #5,173,683.

Host 4100 fire alarm control panel information:

- **Standard** fire alarm control (4100-8010) or **Voice** and sound control (4100-8210)
- **Style 4 Remote Unit Interface (RUI)** module supports MINIPLEX transponders **and** 4602/4603 serial annunciators on the same signaling line circuit
- **Up to 4 RUI Cards** in the 4100 Control Panel can be used for distributing transponder wiring in different directions or for supporting different wiring requirements (such as using a Style 7 RUI for serial annunciators)
- **Up to 31 MINIPLEX transponders** can be controlled from 4100 fire alarm control panel and can be distributed as required among the RUI cards
- **“T” tapping is allowed for Style 4 communications**, wiring from RUI cards is a minimum of 18 AWG twisted, shielded pair (Style 7 wiring does not support “T” tapping)
- **Wiring distances:** Style 4 wiring distance from the 4100 RUI card to a MINIPLEX transponder is up to 2500 ft (762 m), 10,000 ft (3 km) maximum if “T” tapped; Style 7 wiring supports up to 2500 ft total loop wiring length
- **Voice and telephone wiring** for 4100-8210 systems is via separate twisted, shielded pairs.

(Refer to Simplex data sheet S4100-0013 for additional 4100 system information.)

4100-8019 MINIPLEX transponder specifications:

- Includes Remote Interface Card (RIC)
- Style 7 or Style 4 Communications
- Maximum 24 VDC power of 32 Amps, per transponder, including amplifiers
- MINIPLEX expansion power supply model 4100-0117 is available with 8 Amp output, power-limited
- Maximum of three, 2-unit, 4-unit, or 6-unit cabinets (close nipped) per MINIPLEX transponder location
- Up to 32 modules are allowed in one MINIPLEX transponder
- Annunciation capacity is up to 2000 points, where one annunciation point is either: one LED or one switch on an LED/Switch module, one LED driver output on a Graphic Driver, or one switch input on a Graphic Switch Input Module

SPECIFICATIONS

AC Input

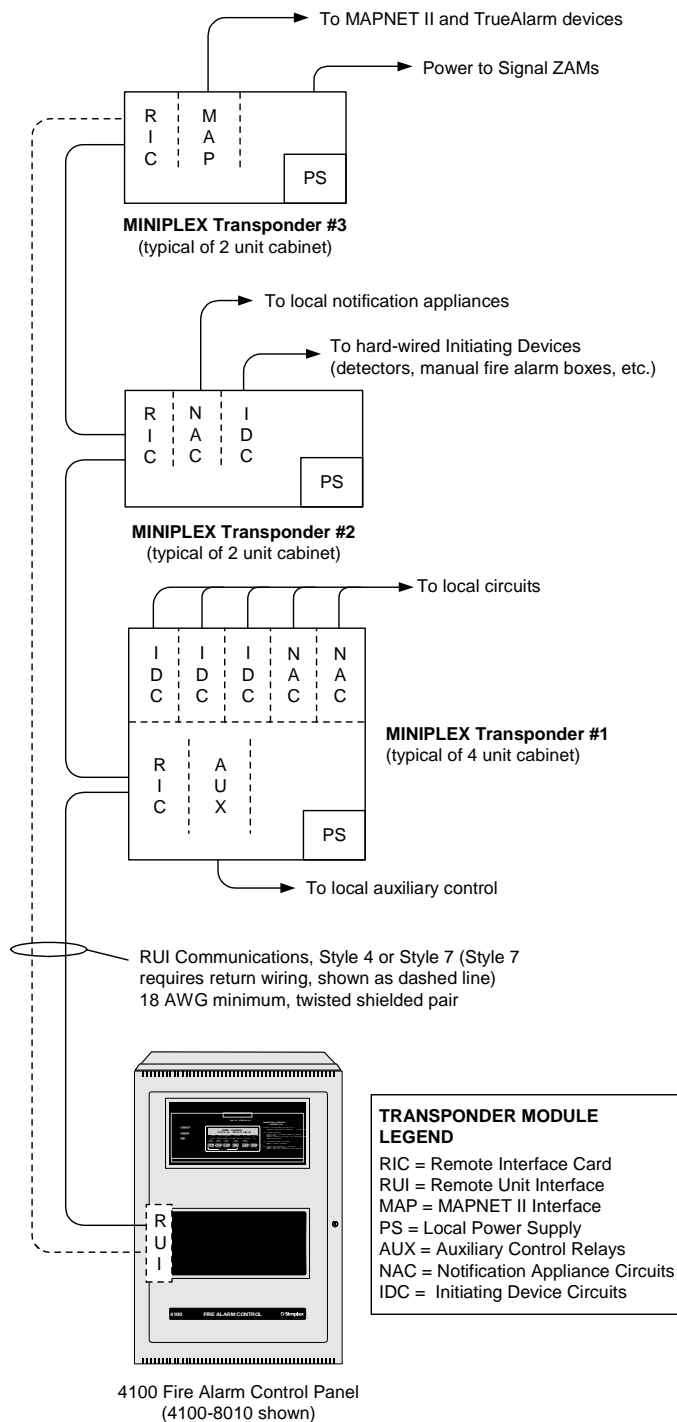
102 to 132 VAC, 60 Hz	6 A maximum
204 to 264 VAC, 50/60 Hz	3 A maximum

Environmental

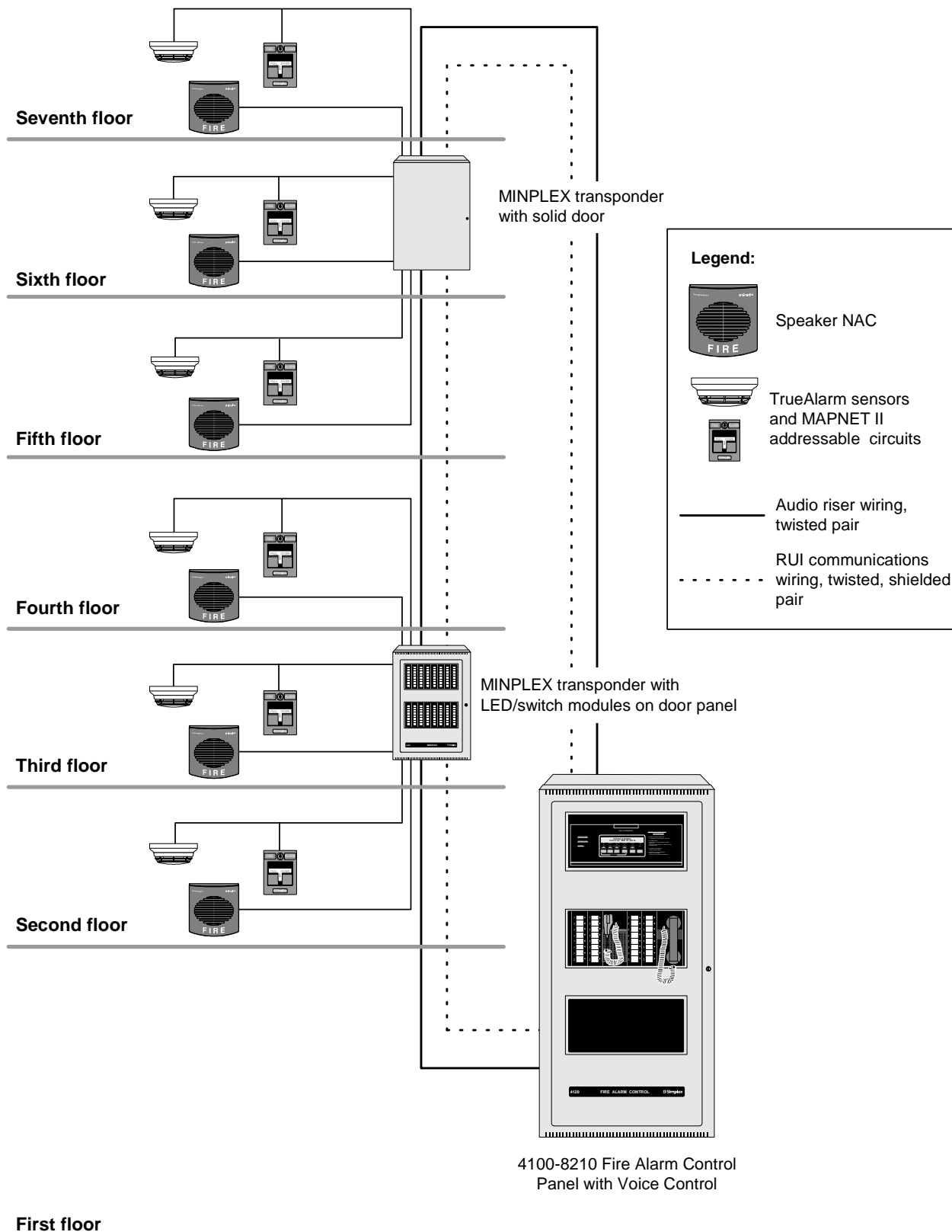
Humidity	85% Non-condensing
Temperature	32° to 120° F (0° to 49° C)

COMPATIBILITY

The MINIPLEX transponder accepts many of the 4100 monitor and control modules. Refer to Simplex data sheet S4100-0014 for module selection information.



Miniplex Block Diagram (Non-Voice Shown)

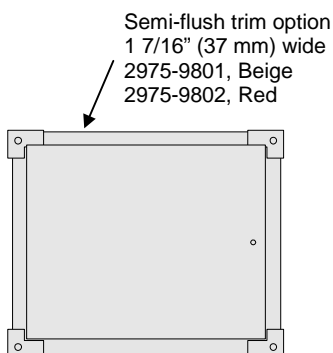


Typical Multi-Floor MINIPLEX Audio System

MINIPLEX Transponder Cabinet Dimensions

Model	Color	Size	Height	Cabinet Width	Cabinet Depth	Door Width
2975-9190	Beige	2-Unit	20 3/4" (527 mm)	25 3/4 (654 mm)	6 3/4" (171 mm)	26 3/8" (670 mm)
2975-9191	Red					
2975-9192	Beige	4-Unit	36 1/4" (921 mm)			
2975-9193	Red					
2975-9194	Beige	6-Unit	52 1/8" (1324 mm)			
2975-9195	Red					

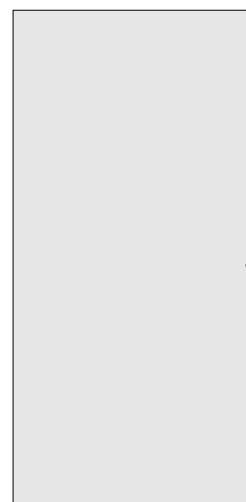
NOTE: MINIPLEX transponders are available with solid or glass doors. Solid doors are shown for reference.



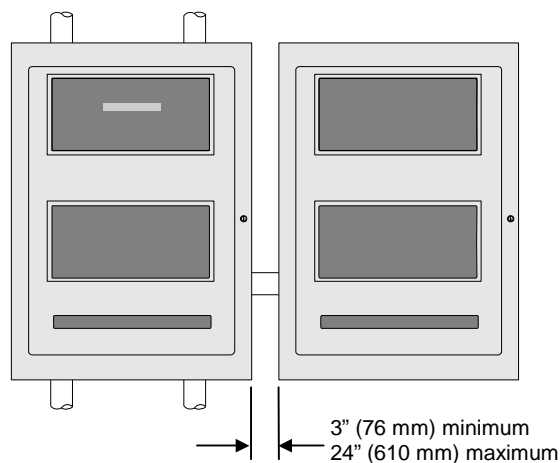
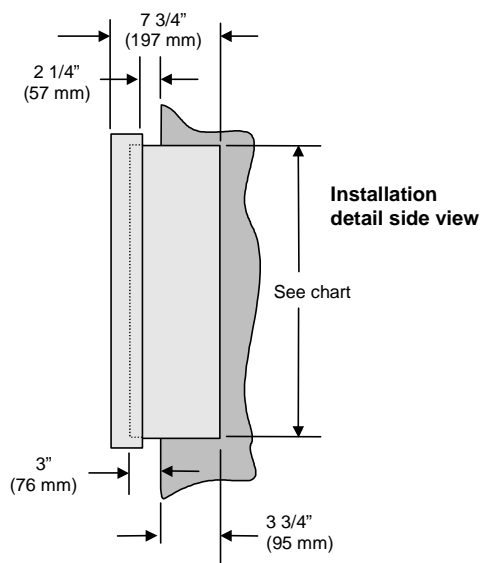
2-Unit Cabinet



4-Unit Cabinet



6-Unit Cabinet



IMPORTANT: Distance between cabinets must be no less than 3 inches (76 mm) and no more than 24 inches (610 mm).

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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All specifications and other information shown were current as of printing and are subject to change without notice.