

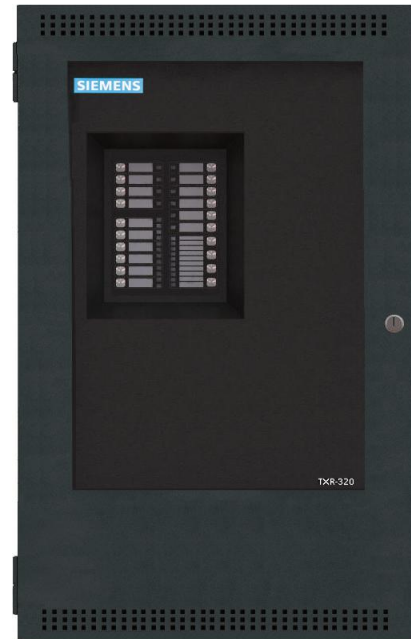
Conventional Releasing Control Panel

Pre-Action | Deluge | Agent-Releasing Fire System

Model TXR-320

ARCHITECT AND ENGINEER SPECIFICATIONS

- **Remote configurable**
 - Up to two (2) hazard areas
- **Operable with the following:**
 - Deluge sprinkler system
 - Pre-action sprinkler system
 - Agent-release system
- **Abort release timer functionalities:**
 - Standard @UL-type delay
 - IRL-type delay
 - NYC-type delay
 - Local jurisdiction / AHJ delay
- **Power supply (notification appliance circuit [NAC] power) of 5 Amps, max.**
 - Avoidance to potential false dumps via special releasing power supply and release-activation considerations
- **'Class A' circuit configuration**
 - Via optional module
- **Six (6) 'Class B' input circuits**
- **Four (4) 'Class B' output circuits**
- **Optional configuration tool contains a backlit, 20-character liquid-crystal display (LCD) screen of up to two (2) lines**
- **Basic fire-system programming accomplished through 13 modes of pre-configured operation**
- **Compatibility listed with Models HI121, OH121 and OP121 conventional detectors**
 - Each conventional detector utilizes the standard Model DB-11 detector base



- Maintenance and technician-level passwords for added security
- Optional city-tie module
- @UL 864 9th Edition Listed; CSFM (#7165-0067:0270) Approved

Product Overview

Model TXR-320 from Siemens – Fire Safety is a dual-releasing, field-configurable fire-alarm control panel (FACP) used on deluge sprinkler; pre-action sprinkler, and agent-release (Sinorix® Engineered Fire Suppression) systems.

Basic configuration is accomplished from the front panel, via the selection of 13, pre-configured modes of operation. Advanced features can be configured via the system's optional configuration tool, Model TCFG-300 — no laptop personal computer (PC) is required.

Model TXR-320 is equipped with six (6) 'Class B' ['Style B'] input circuits and four (4) 'Class B' ['Style Y'] output circuits rated at 1.7 Amps, maximum (total capacity of 5A per system). Optional 'Class A' converter modules are available for both input and output circuits.

Additionally, internal and external relays are supported by Model TXR-320, configurable for single-hazard and dual-hazard applications.

Alarm, Supervisory and *Trouble* conditions are indicated via a two-line, 20-character, backlit LCD display and integral system-status, light-emitting diodes (LEDs).

Built-in membrane control buttons serve as the input for *Acknowledge*; *Alarm Silence* and *System Reset* command functionality. Basic user and maintenance-level functions – such as *Viewing History* or *System Enable / Disable* – are also accomplished through the membrane-control buttons.

For added security, maintenance-level functions are password protected.

Pre-Action | Deluge | Agent-Releasing FACP (TXR-320)

3500

Product Overview — (continued)

Every Model TXR-320 FACP ships complete as a **black** enclosure with door, durable key-lock and available space to mount up to 12AH batteries.

Model TXR-320 FACP is compatibility listed with Siemens Model HI121, OH121, OP121 conventional detectors, which each utilize the standard Model DB-11 detector base.

Each Model TXR-320 FACP is @UL 864 9th Edition Listed by Underwriters' Laboratories, and is CSFM (#7165-0067:0270) Approved.

Specifications

There are six (6) 'Class B' – ['Style B'] input circuits to every Model TXR-320 Pre-Action / Deluge / Agent-Releasing FACP. Input circuits 1– 4 can be configured as follows: *Non-Verified Alarm; Non-Latching Supervisory, Latching Supervisory or Agent Release / Water Flow*, based on the selected operation mode. Meanwhile, input circuits 5, 6 can be programmed as follows: *Manual Release Input, Abort Input or Abort / Manual Release Combination Input*, depending on the designated operating mode.

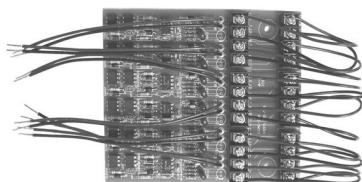
Output signals can be configured for 'steady' (fixed) or 'escalating' (tone changes as input operation changes). Circuits 3 and 4 – the panel's output circuits – can be configured as any of the following: *Silenceable signal, Silenceable strobe, Non-Silenceable strobe, or Releasing circuit*.

Relay contacts are configurable for the following system commands: common *Alarm* {which cannot be disconnected}; auxiliary *Alarm* {disconnection capable}, common *Supervisory*, and common *Trouble*.

Note: Common *Supervisory* command can be converted for a common *Alarm* event, provided no *Supervisory* input is used.

Cross zoning is an optional feature to each Model TXR-320 FACP. For cross-zone monitoring, Inputs 1 and 2 are active zones on Output 3, while Inputs 3 and 4 are active zones on Output 4.

Optional Modules



Model TICAC

TICAC — 'Class A', Input-Circuit Converter Module

Model TICAC converts six (6) 'Class B' – ['Style B'] inputs on each Model TXR-320 to 'Class A' – ['Style D'] circuits. Wire leads are used on Model TICAC for connection to Model TXR-320's main board. Model TICAC mounts to the right of the main-board initiating circuits, which use 'Class B' – ['Style B'] wiring, and includes a built-in end-of-line (EOL) resistor.



Model TOCAC

TOCAC — 'Class A', Output-Circuit Converter Module

Model TOCAC converts four (4) 'Class B' – ['Style Y'] output circuits on Model TXR-320 FACPs to two (2) 'Class A' – ['Style Z'] circuits. Every Model TOCAC is equipped with wire leads to establish connection with Model TXR-320's main board. Model TOCAC mounts to the right of the main-board indicating circuits.



Model TRM-306

TRM-306 — Relay-Circuit Adder Module

Model TRM-306 provides six (6) 'Form C,' configurable relay circuits, rated @ 28 VDC, 1A (resistive).

Each Model TRM-306 'Form C' circuit can be configured as a normally open (N.O.) or normally closed (N.C.) contact. Additionally, each 'Form C' relay is equipped with a LED, which will illuminate when the relay is energized. The relays can be configured as relay-per-zone (1-to-1); common on *Alarm*; common on *Supervisory*, or programmable for logical or adjacent-zone configuration.

An adjacent-zone configuration will turn on the closest zone when the configured zone is active. A chaining configuration allows multiple relays to duly function.



Model TCFG-300

TCFG-300 — Configuration Tool

The configuration tool (Model TCFG-300) plugs into the main board of every Model TXR-320 FACP, offering a (2) two-line by 20-character LCD. Model TCFG-300 configures Model TXR-320 LED-version FACPs and push buttons on the main board.

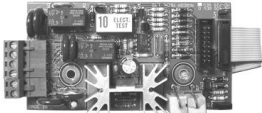
Specifications

Optional Modules — (cont.'d)

TCFG-300 — Configuration Tool

In configuration mode, the disconnect buttons for initiating and indicating circuits act as function keys. Removing the zone labels reveals the programming function buttons.

Model TCFG-300 is used only for configuration purposes only (not for normal operation).



Model TPR-300

TPR-300 — City-Tie / Reverse-Polarity Module

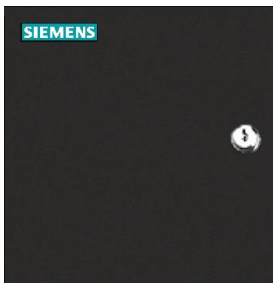
Model TPR-300 provides outputs for city-tie box and reverse-polarity applications. As a city-tie module, Model TPR-300 serves as an interface between the FACP's indicating circuits and a master box. Model TPR-300 also provides off-premises signal transmission for systems that must comply with NFPA requirements for auxiliary protective systems.

As a reverse-polarity module, Model TPR-300 provides an interface between Model TXR-320 and a reverse-polarity receiver.

TRAM-208 — Remote LED Annunciator

The Model TRAM-208 remote LED annunciator offers eight (8) points of LED annunciation. Model TRAM-208 comes standard with bi-color LEDs that are automatically configured for either *Alarm* (RED) or *Supervisory* (AMBER).

Model TRAM-208 also has indicators for alternating-current (AC) 'On' common *Trouble* — as well as signal silence and controls for system reset, lamp test, fire drill, buzzer silence and signal silence. Model TRAM-208 also allows for the control switches to be disabled on a per-function basis.



Model TSRM-312

TSRM-312 — Smart Relay Module

Model TSRM-312 provides 12 'Form C,' configurable relay circuits, rated @ 28 VDC, 1A (resistive). Each circuit, which can be configured as a N.O or N.C contact, is equipped with a LED that will illuminate when the relay is energized.

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Building Technologies Division

TSRM-312 — Smart Relay Module (continued)

The relays can be configured as relay-per-zone (1-to-1); common on *Alarm*; common on *Supervisory*, or programmable for logical or adjacent-zone configuration.

An adjacent-zone configuration will turn on the closest zone when the configured zone is active. A chaining configuration allows multiple relays to duly function.

Model TSRM-312 is DIP-switch configurable, and connects to the RS-485 bus.



Model AW-1

AW-1 — Abort Station

The Abort Station (Model AW-1) uses a momentary, N.O or N.C contact 'Dead Man'-type push-button switch, which — while held in for activating — prevents any unintended agent discharge from the releasing circuit.



Model MH-501

MH-501 — Manual Release Station

The Manual Release Station (Model MH-501) is a double-action station that contains one (1) N.O contact. Model MH-501 is intended for use with Siemens — Fire Safety low-voltage systems, but has a rating of 120VAC for connection to other systems.

Model MH-501 is constructed of durable, molded polycarbonate material — matte-finished in red with raised lettering in white. The housing incorporates a 'push-in' tab, which must be initially operated, thus permitting access to the 'pull-down' lever.

When operated, the lever — in turn — locks into position after releasing a spring-loaded contact switch. Restoring the system to *Normal* can only be done by opening the cover of the hinged housing with the reset key, followed by closing and immediately locking the cover.

Model MH-501 is constructed with a molded housing, fitted with a 'pull-down' lever and a 'push-in' tab.

Compatibility with Detection Devices



Model HI121



Model OH121



Model OP121

HI121, OH121 and OP121 – Conventional Detectors

The Model TXR-320 FACP is compatible (and agency listed) for use with Siemens Model HI121, OH121 and OP121 conventional detectors, which each utilize the standard Model DB-11 detector base.

Model HI121 is a thermal detector that comes with a magnet-test feature, allowing testing without the use of a heat gun, and thus providing quick testing for installers and test personnel to prove the integrity of the wiring and proper connection to the FACP.

Model OH121 is a photo / thermal smoke detector that contains a thermal sensor, which – when used – an *Alarm* event will occur when the ambient temperature surpasses 135°F (57.2°C), and locks the FACP into *Alarm* mode.

Model OP121 is a photoelectric smoke detector with microprocessor-controlled, self-diagnostic circuitry, and thus eliminates the need for burdensome sensitivity test equipment. Tri-colored LEDs (**GREEN**, **YELLOW** and **RED**) serve as system-status indicators for all three (3) conventional detectors.

Related Documentation

Product	Data Sheet Number
Abort Station, Manual Release Station	6632
HI121 Thermal Heat Detector	6186
OH121 Photo Thermal Smoke Detector	6192
OP121 Photoelectric Smoke Detector	6193
Model DB-11 Detector Base	6161

Technical Data

Primary Power Supply:	Primary Input Voltage: 120 VAC (60 Hz.)
	Maximum Primary Input Current: 1.7 Amps
	Primary Input Voltage: 240 VAC (50 Hz.)
	Maximum Primary Input Current: 0.85 Amp.

Technical Data – (continued)

Battery Properties:	Base cabinet accommodates a 12AH battery set
	Larger batteries require separate enclosures
	Battery fuse on main module
	10A micro (slow-blow) fuse
Four-Wire Smoke Power:	300mA @ 22.3VDC, max.
Supervised Auxiliary Power:	500mA @ 22.3VDC, max.
Manual Release Delay:	0 – 30 seconds
	increments of 5 seconds
Release Timer Properties:	0 – 60 seconds
	increments of 5 seconds
Soak Timer Properties:	0 – 15 minutes
	21 intervals

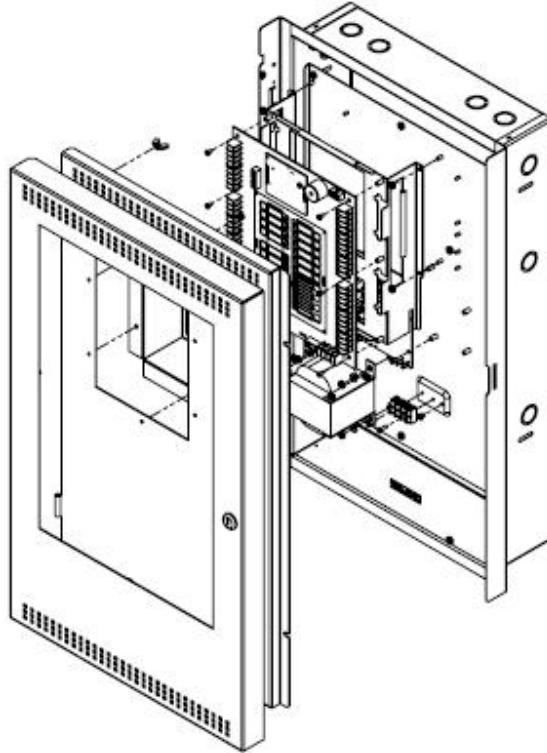
Details for Ordering

Model	Part Number	Description
TXR-320	500-537020	Six (6) Zone Deluge / Extinguishing FACP

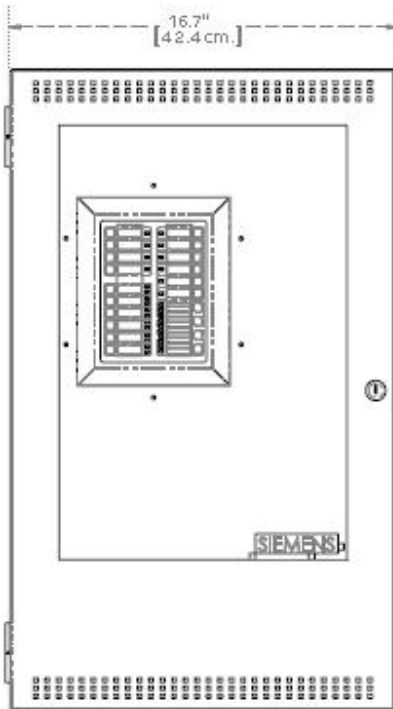
Optional Modules | Accessories

Model	Part Number	Description
TRAM208	500-337019	8-Point LED Annunciator
MH-501	500-622543	Dual-Action, Agent-Release Manual Pull Station
EL-320	500-637032	End-of-Line [EOL] with diode (solenoids)
CLR-1500	500-637033	Current Limiter EOL Device
EL-300C	500-645852	EOL Device Plate
TCFG-300	500-737017	Custom-Configuration Software Tool
AW-1	500-822500BG	Abort Station
TSRM-312	500-637018	Smart Relay Module
TRM-306	500-837022	Relay Adder – Qty. Six (6)
TPR-300	500-837024	City-Tie / Reverse Polarity Line
TICAC	500-837025	Six (6) 'Class A' Input Converter
TOCAC	500-837026	Two (2) 'Class A' Output Converter
HI121	S54372-F3-A1	Thermal Heat Detector
OH121	S54372-F2-A1	Photo Thermal Smoke Detector
OP121	S54372-F1-A1	Photoelectric Smoke Detector
DB-11	500-094151	Detector Base
DB-3S	595-381804	Detector Base

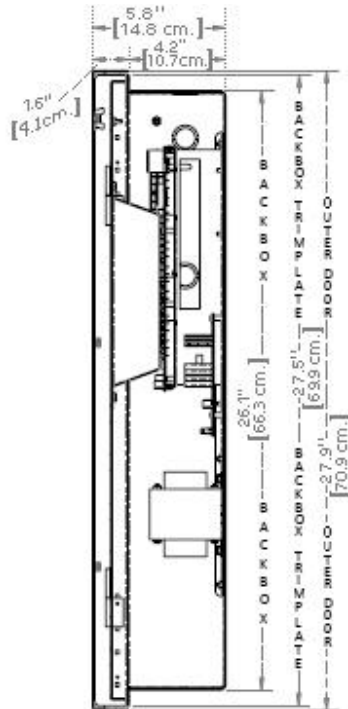
Model TXR-320 Three Dimensional (3D) Mounting Graphic



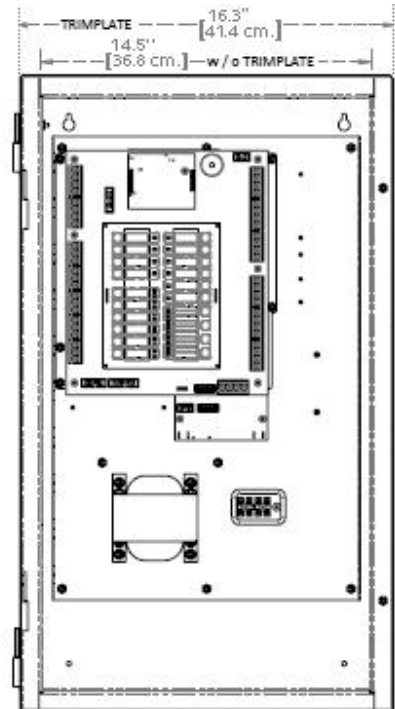
TXR-320 Dimensions



TXR-320 Panel
[Front View, outer door]



TXR-320 Panel
[Side View]



TXR-320 Panel
[Front View, without outer door]

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Notice: This marketing data sheet is not intended to be used for system design or installation purposes.
For the most up-to-date information, refer to each product's installation instructions.

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