Description

MX addressable manual stations contain an integral addressable module that constantly monitors status, and communicates changes to the connected FACU through MX communication wiring.

Features

Main features:

· MX addressable loop communications using a single wire pair
· EMI compatibility
· Choice of hard addressing with DIP switch, or soft addressing with digital enrollment
· Internally mounted addressable module similar to the design of the 4090-5258 Mini-IAM
· Available with single-action breakglass, double-action breakglass, or double-action push-type operation
· Pull lever that protrudes when the device is alarmed
· Break-rod supplied for optional use
· UL listed to Standard 38

Compatibility:

For use with Simplex® models 2050, 2250, 4007ES, 4010ES, and 4100ES series fire alarm control units (FACUs) with MX communications

Compact construction:

· Electronics module enclosure minimizes dust infiltration
· Mounts in standard electrical boxes
· Screw terminals for wiring connections

Security:

· Tamper-resistant reset key
· The lock shares the same key as the Simplex fire alarm cabinet.
· To reduce waste, pull stations do not include a key.

   Note: Order keys separately. For ordering information, see Table 2.

Multiple mounting options:

· Surface or semi-flush with standard boxes or matching Simplex boxes
· Flush mount adapter kit
· Adapters are available for retrofitting to commonly available existing boxes

Operation

Activation of the 4099-5214 single-action manual station requires a firm downward pull to activate the alarm switch. Pulling the switch breaks an internal plastic break-rod that is visible below the pull lever, use is optional. The break-rod is visible below the pull level to deter vandalism. You do not require additional force to pull the level with the break-rod in place. The pull lever latches into the alarm position and remains extended out of the housing to provide a visible indication.

Double-action breakglass stations: Strike the glass with the front-mounted hammer to expose the recessed pull lever. The pull lever then operates as a single action station.

Double-action push-type stations: To access the pull lever on double-action push-type stations, push the spring-loaded plate marked **PUSH**. The pull lever then operates as a single-action station.

Station reset: Use a key to reset the manual station lever and deactivate the alarm switch. If you use the break-rod, you must replace it.

Station testing: Pull the lever to test the station. Electrical testing works by unlocking the station housing to activate the alarm switch.

Institutional stations activate by key operation only. Manual alarm access can be limited to authorized personnel. Operation requires key insertion and opening of the station cover.

Figure 1: 4099-5214 Single action manual station, front and side view
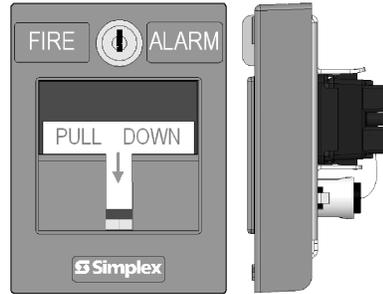

Figure 2: 4099-5214 Single action manual station with institutional cover, ordered separately

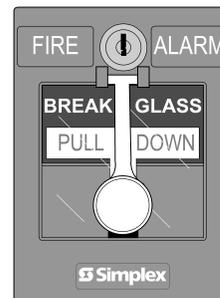Figure 3: 4099-5215 Double action breakglass manual station

Figure 4: 4099-5216 Double action push-type manual station

MX Technology addressable manual station product selection

Table 1: Addressable manual stations, red housing with white letters and white pull lever

Model	Description
4099-5214	Single-action operation
4099-5215	Double-action, breakglass operation
4099-5216	Double-action, push-type operation

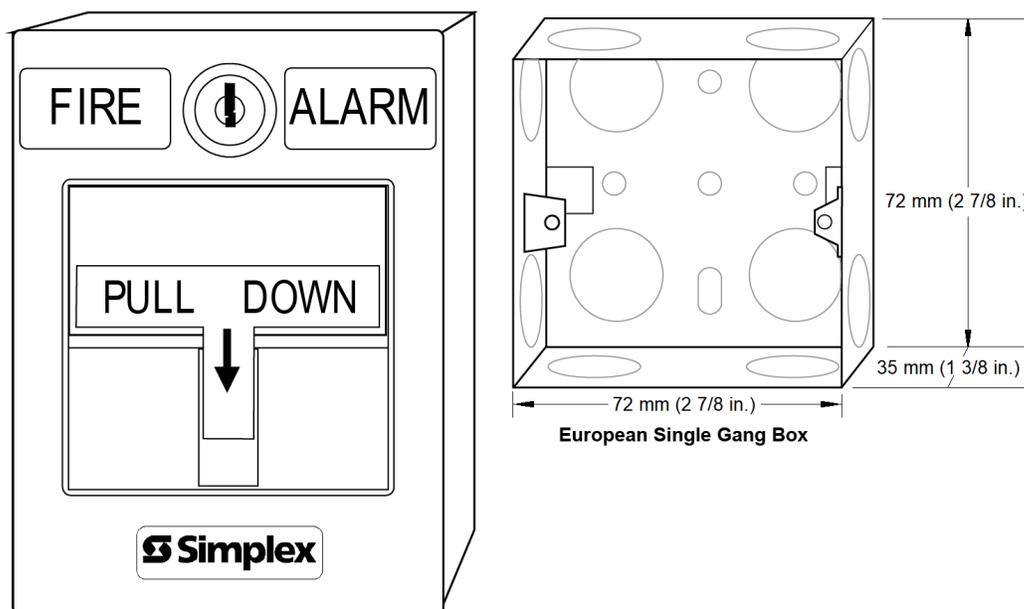**Table 2: Accessories**

Model	Description
2975-9178	Surface mount steel box, red, see Figure 6 for details
2975-9022	Cast aluminum surface mount box, red, see Figure 6 for details
2099-9813	Semi-flush trim plate for double gang switch box, red, see Figure 8 for details
2099-9814	Surface trim plate for wiremold box V5744-2, red, see Figure 8 for details
2099-9819	Flush mount adapter kit, black, see Figure 9 for details
2099-9820	Flush mount adapter kit, beige, see Figure 9 for details
2099-9803	Replacement breakglass
2099-9804	Replacement break-rod
2099-9828	Institutional cover kit for field installation on 4099-5214
252-019	B key for pull station activation and reset

Specifications

Table 3: Specifications

Specifications	Rating
Power and communications	MX Loop, one address for each manual station
Address means	Hard addressing using a DIP switch or soft addressing using Digital Enrollment with a QR code
Standby/Alarm current	Standby 0.043 mA / Alarm 4.51 mA
Wire connections	Terminal blocks, for wire size 20 AWG to 14 AWG (0.5 mm^2 to 2.5 mm^2)
UL listed temperature range	32°F to 120°F (0°C to 49°C), this is intended for indoor operation
Humidity range	Up to 93% RH at 90°F (32°C)
Housing color	Red with white raised lettering
Material	Housing and pull lever are Lexan polycarbonate or equal
Pull Lever color	White with red raised lettering
Housing dimensions	5 in. H x 3 3/4 in. W x 1 in. D (127 mm x 95 mm x 25 mm)
Installation instructions	579-1429

Addressable manual station semi-flush mounting

Figure 5: Addressable manual station semi-flush mounting
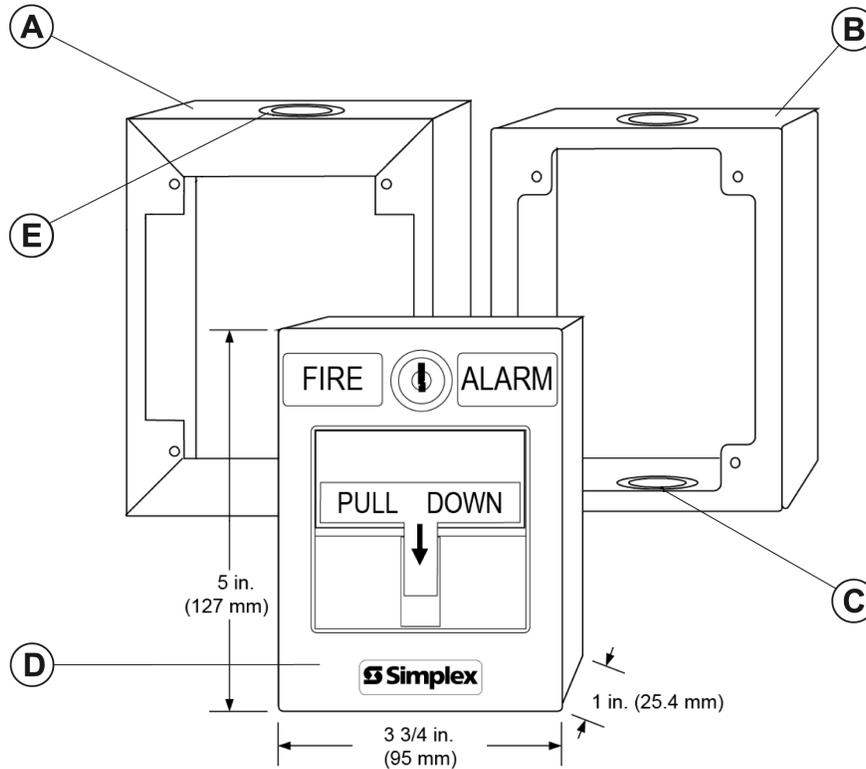

European Single Gang Box

The European Single Gang Box has a minimum depth of 35 mm (1 3/8 in.). Use the box with only two mounting tabs. Supplied separately.

Addressable manual stations surface mounting

Preferred mounting: To surface mount addressable manual stations, the preferred electrical boxes are shown in Figure 6.

Additional mounting reference: For Wiremold box mounting compatibility, see Addressable manual station, additional mounting information

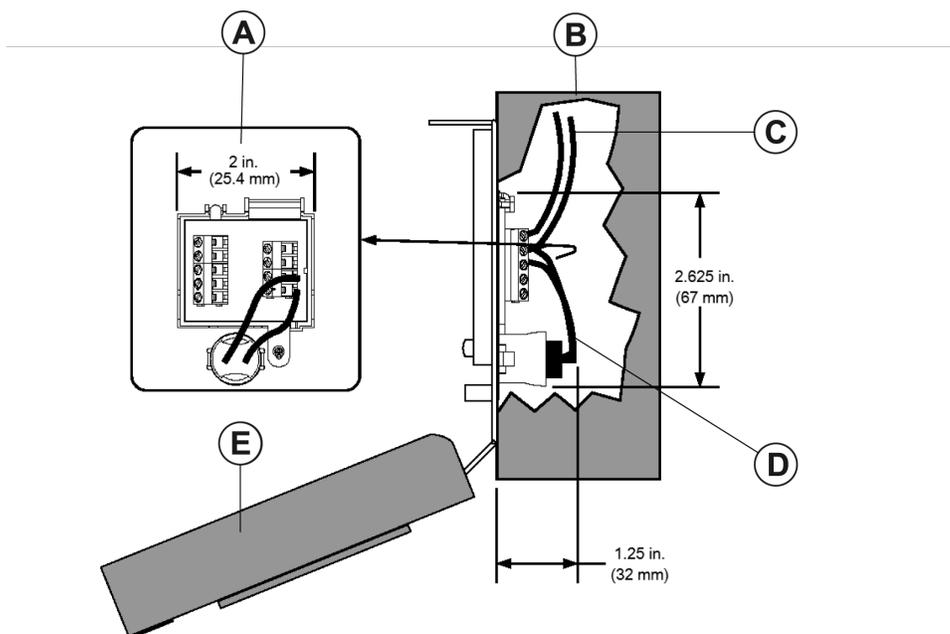**Figure 6: 4099 mounting**

Callout	Description
A	Box
	5 3/16 in. x 4 in. x 2 3/16 in., 132 mm x 102 mm x 56mm (Height x Width x Depth)
	Ordered separately
B	Cast box
	5 in. x 3 7/8 in. x 2 3/16 in., 127 mm x 98 mm x 56 mm (Height x Width x Depth)
	Ordered separately
C	Access for 3/4 in. threaded conduit located top and bottom
D	Series Addressable Manual Station
E	Knockouts located top and bottom

Surface mount side view with internal detail

Figure 7: Internal detail

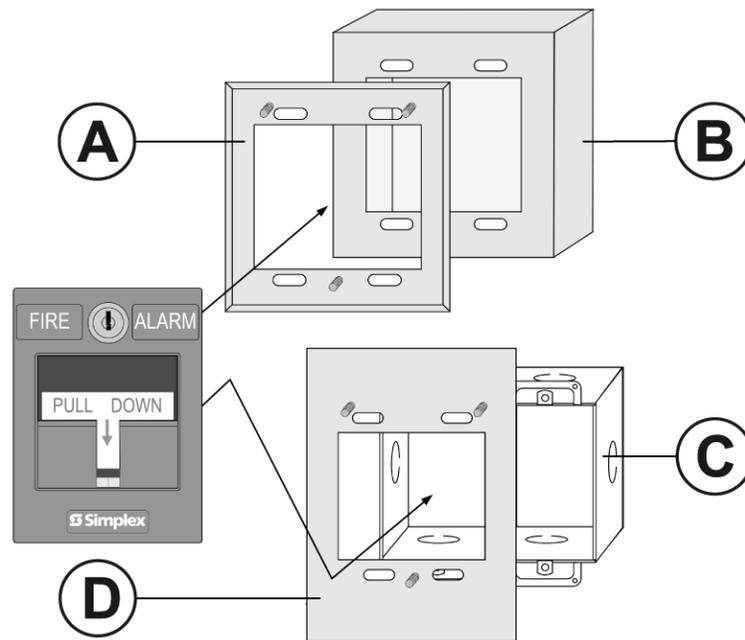| Callout	Description
A	Rear view
B	Box
C	Field wiring. Shown for reference
D	Switch wiring. Pre-wired
E	Station cover hinges open for installation access

Application reference

Refer to NFPA 72, the *National Fire Alarm and Signaling Code*, and all applicable local codes for complete requirements for manual stations. The following summarizes the basic requirements.

- Locate stations in the normal path of exit and distribute in the protected area so that they are unobstructed and readily accessible.
- Mount with the operable part not less than 3 1/2 ft (1.1 m) and not more than 4 1/2 ft (1.37 m) above floor level.
- Provide at least one station on each floor. Provide additional stations to obtain a travel distance not more than 200 ft (61 m) to the nearest station from any point in the building.
- When manual station coverage appears limited in any way, install additional stations.

Addressable manual station, additional mounting information

For retrofit and new installations, additional compatible mounting boxes and the required adapter plates are shown in Figure 8.
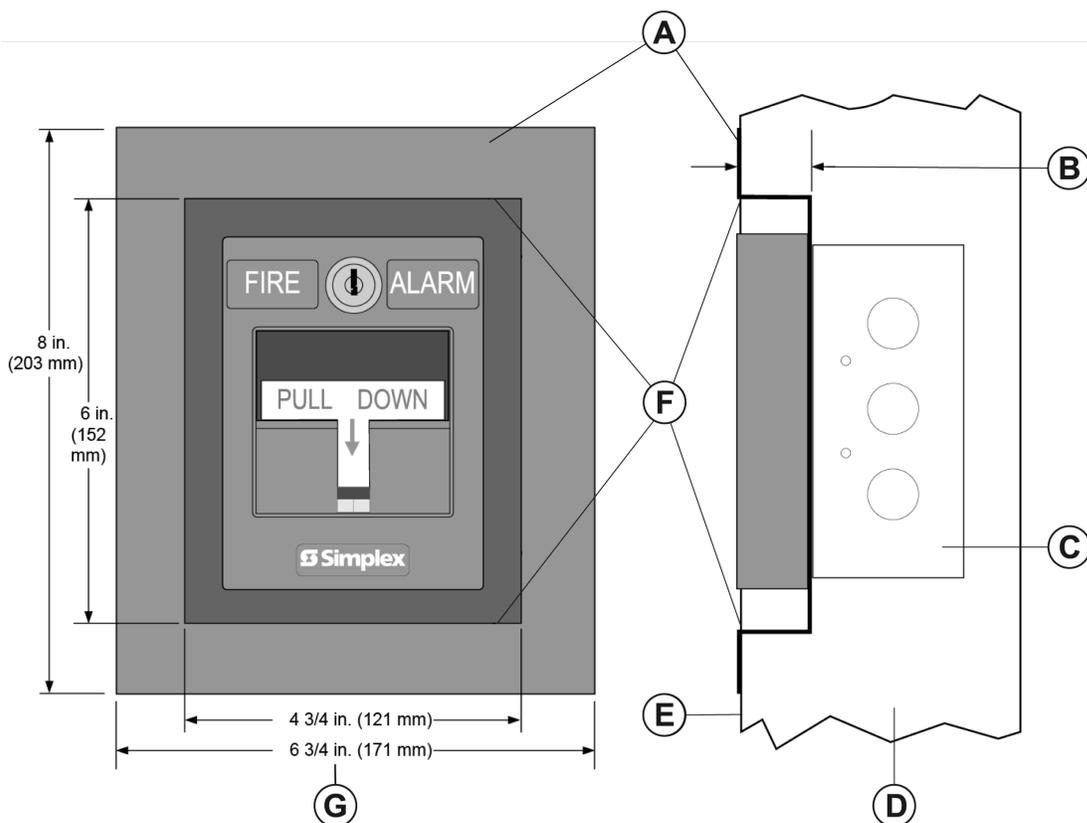
Figure 8: Additional mounting information

Callout	Description
A	Surface trim for Wiremold box
	5 1/8 in. x 5 in., 130mm x 127 mm (Height x Width)
B	Wiremold receptacle box model V5744-1
	Supplied by others
C	Two gang switch box, each
	3 in. x 2 in. x 2 3/4 in., 76 mm x 51 mm x 70 mm (Height x Width x Depth)
	Supplied by others
D	Semi-flush trim for 2 gang switch box
	6 in. x 4 1/2 in., 152 mm x 114 mm (Height x Width)

Addressable manual station, flush mounting information

Figure 9: Flush mounting information

Callout	Description
A	Flush mount adapter kit in black or beige
B	Box must be recessed into the wall by 1 in. to 1 1/8 in (25.4 mm to 29 mm)
C	4 11/16 in. (119 mm) square box
	2 1/8 in. (54 mm) minimum depth
	By others
D	Side view
E	Wall surface
F	Hole cutout must be a min. of 6 in. by 5 in., 152 mm x 127 mm (Height x Width)
G	Front view