

Description

Construction

MX compatible sensors have a rugged, robust and reliable construction that has undergone stringent environmental testing. They use durable, fire resistant FR110 plastic. Electrical contacts are molded into the plastic to eliminate movement.

Detection modes

The sensors use MX Technology communications to communicate to the Foundation Series FACUs. Each detector can operate in one of several detection modes to ensure it is easily optimized to the relevant risk.

Figure 1: Heat detector



Figure 2: Photo, Photo-Heat, or Photo-Heat-CO detector, on standard 4 in. base



Features

The following items are features of the MX Technology addressable smoke sensors, heat sensors, and multi sensors:

- Smoke sensors with accurate photoelectric sensing.
- Heat sensors with electronic heat sensing and multiple alarm options.
- Multi-sensors combine photoelectric sensing with heat sensing.
- Triple sensors combine photoelectric, heat, and CO sensing.
- Sounder bases with multiple tone and volume selections, available as MX Loop powered.
- Accessories include remote LED indicators and base adapters.
- Smoke sensors and accessories are listed to UL 268 7th edition, heat sensors to UL 521.

Compatibility

- For use with Autocall A050 and A250 Foundation Series fire alarm control units (FACUs).
- MX Technology is used to communicate Analog sensor information to the host FACU.

Installation and service features

- Each sensor comes with an integral dust cover for protection during storage and installation which you can remove when commissioning the system.
- Unique park position for commissioning and service.
- You can use the DIP switch in the sensor to hard set the address, or the Digital Enrollment mobile application to soft set the address.
- Bases with multiple mounting options to simplify installation.

Sensor details

The A4098-5704 Triple Sensor, see [Figure 2](#), incorporates optical and heat sensors combined with a CO sensor. The Triple Sensor uses powerful algorithms for use in life safety applications, and applications where environmental conditions present challenges to standard sensors. It is a multi-sensor device which simultaneously monitors smoke, heat, and CO levels to accurately determine the presence of fire.

The A4098-5704 Multi-sensor, see [Figure 2](#), has the features of the A4098-5701 Photoelectric Sensor and the Heat Sensor from the A4098-5703. As a result, the A4098-5704 can satisfy detection applications with multiple risks.

The A4098-5701 Photoelectric Sensor, see [Figure 2](#), incorporates a unique optical chamber design with a signal-to-noise ratio. This provides high resilience to dust, dirt, and small insects for reduced service cost. The unique chamber cover draws slow moving smoke into the chamber for more responsive detection.

The A4098-5703 Heat Sensor, see [Figure 1](#), returns analog temperature readings to the FACU for evaluation. Construction includes a high quality thermistor with very low thermal mass to provide fast and accurate temperature readings for heat detection determination. Select heat detection settings at the FACU for 135°F (57.2°C) or 200°F (93°C) either with or without rate-of-rise detection, 15°F (8.4°C) a minute.

Standard sensor base and accessories details

The A4098-5261 4 in. base, see [Figure 3](#), is a standard mounting base.

The A4098-5207 5 in. base, see [Figure 5](#), is a standard mounting base for use with 4 in. octagonal back boxes.

Both standard bases can drive the A2098-9808 Remote LED Alarm Indicator.

Use the 4098-9799 6 in. adaptor, see [Figure 4](#), with a 5 in. base when mounting on a 4 in. octagonal back box.

The A2098-9808 or Remote LED Alarm Indicator, see [Figure 6](#), provides a remote indication that the sensor is in alarm. See [Table 7](#) for dimensions.

Figure 3: A4098-5261 4 in. base



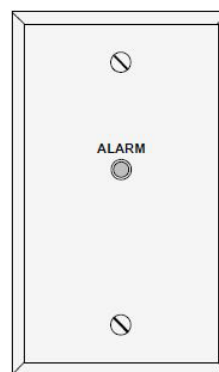
Figure 4: 4098-9799 6 in. adaptor for 5 in. base



Figure 5: A4098-5207 5 in. base



Figure 6: A2098-9808 Remote LED Alarm Indicator



A4098-5210 non-addressable Loop Power sounder base details

General features

- The non-addressable low power sounder bases are loop powered from the A050 and A250 Foundation Series FACUs.
- Use as a single point of installation for detector and sounders.
- Listed to UL 268.
- The sounder base requires an associated detector to operate because it uses the address of the detector that is fitted to it.
- The sounder stops operating if the detector is removed, or if there is a loss of power to the loop.
- MX Loop powered, no separate power connection is required.
- The maximum sound level output is 85 dBA at 10 ft (3 m).
- The maximum alarm current is 24 mA, from the SLC.
- The standard base diameter is 4 in., 5 in. and 6 in. adaptor plates are also available.

Multiple output tones

Eight tone selections are available. To select these and to satisfy local requirements, use the DIP switch at the base.

Adjustable volume at each base

For applications that require reduced sound level, you can use the Volume Trimmer Tool 517.050.015 to adjust the output volume at the sounder base.

Figure 7: A4098-5210 sounder base, with supplied mounting flange



Figure 8: 4098-5227 5 in. adaptor for A4098-5210 sounder base



Figure 9: 4098-5228 6 in. adaptor for A4098-5210 sounder base



Product selection

Table 1: Sensors and bases product selection

Model	Description	Installation instructions
A4098-5701	MX Photo Sensor with address switch	579-1452AC
A4098-5702	MX Photo/Heat Sensor with address switch	
A4098-5703	MX Heat Sensor with address switch	
A4098-5704	MX Photo/Heat/CO Sensor with address switch. Future availability	
A4098-5261	4 in. Detector Base with Remote LED Output	579-1089AC
A4098-5207	5 in. Addressable Sensor Base with remote LED output. Use with 4098-9799 on a 4 in. square box.	579-936AC
A2098-9808	Remote LED Alarm Indicator, for use with the bases listed above	—

Table 2: Sensor base accessories

Model	Description	Installation instructions
4098-9799	6 in. adaptor for 5 in. base. Also compatible with a 4 in. octagonal box	579-1475AC
4098-5227	5 in. adaptor for LP sounder base A4098-5210	579-1475AC
4098-5228	6 in. adaptor for LP sounder base A4098-5210	579-1475AC
553-805	Detector removal adaptor	—
4098-5214	Addressable duct sensor housing, see note.	579-962AC

Note: For further details on the 4098-5214 addressable duct sensor housing, refer to datasheet AC4098-0064

Specifications

Current is supplied by A050 or A250 FACU SLC, except where noted.

Table 3: Sensor current requirements

Product	Supervisory	In alarm/activated Note: Does not include remote LED current
A4098-5701 Photo sensor	0.6 mA	6.94 mA
A4098-5702 Photo/heat sensor		
A4098-5703 Heat sensor		
A4098-5704 Triple sensor		

Table 4: Audio output and current requirements for loop powered sounder base

Product	Volume	Supervisory current	Activated current for each audio output
A4098-5210 sounder base	Full volume at 85 dB at 10 ft (3 m)	10 μ A	24 mA

Table 5: General specifications

Specification	Rating
Communications	MX Loop, one address for each sensor base
Sounder base voltage	MX Loop powered, 20 VDC to 40 VDC maximum. No separate power connection is required.
Sensor base wire connections	Terminal blocks, for wire size 20 AWG to 14 AWG (0.5 mm ² to 2.5 mm ²)

Table 6: Operating temperature range, for indoor use only

Product	Operating temperature	
A4098-5251 Multi-Sensor with Isolator	32°F to 100°F (0°C to 38°C)	
A4098-5254 Triple Sensor with Isolator		
A2098-9808 Remote LED Annunciator		
A4098-5252 Photoelectric Sensor with Isolator	-13°F to 158°F (-25°C to 70°C) continuous; up to 194°F (90°C) short term	
A4098-5260 4 in. Continuity Base 4B-C UL		
A4098-5253 Heat Sensor with Isolator	135°F (57.2°C) setting	100°F (38°C) maximum ceiling ambient temperature
	200°F (93°C) setting	150°F (65.6°C) maximum ceiling ambient temperature
A4098-5209 Sounder Base	0°C to 38°C (32°F to 100°F)	
A2098-9808 Remote LED Annunciator		

Table 7: Additional specifications

Specification	Rating
Humidity range (for indoor use only)	Up to 93% RH non-condensing
Sensor dimensions	108 mm x 42 mm (4.252 in. x 1.653 in.)
A4098-5210 sounder base	110 mm x 37.5 mm (4.33 in. x 1.48 in.)

Table 7: Additional specifications

Specification		Rating
A2098-9808 remote LED indicator	Dimensions	Overall: 114 mm x 70 mm (H x W) (4 1/2 in. x 2 3/4 in.) Mounting holes: 83 mm (3 9/32 in.) apart (standard US single-gang box mounting).
	Current	1 mA
	Connections	Color coded wire leads, 18 AWG (0.82 mm ²)