

Context plus

- Ionization smoke detectors
- Photo-electric smoke detectors
- Thermal detectors
- Range of bases



Context Plus Series 65A Thermal Detector

Thermal detectors operate by using a matched pair of thermistors to sense heat. One thermistor is exposed to the ambient temperature, the other is sealed. In normal conditions the two thermistors register similar temperatures, but, on the development of a fire, the temperature recorded by the exposed thermistor will increase rapidly, resulting in an imbalance, causing the detector to change into the alarm state. Rate-of-rise detectors are designed to detect a fire as the temperature increases, but they also have a fixed upper limit at which the detector will go into alarm if the rate of temperature increase has been too slow to trigger the detector earlier.

Externally, the thermal detectors are distinguishable from the smoke detectors by having wide openings to the surrounding atmosphere to allow good movement of air around the external thermistor.



Context Plus Series 65A Bases

The bases have been designed to enable detectors to be plugged in without any need for force - particularly useful when fitting to suspended ceilings. **All Context Plus bases are lockable.**

The standard base is identical to the Series 60 base, so uses the same part number, **45681-200 IMC**. It contains no electronic parts which could be damaged during installation.

Continuing our policy of bringing our customers the ultimate effectiveness in fire detection that current technology allows, Context Plus Series 65A has been developed from the highly successful Series 60 range of conventional detectors.

- ▲ wide operating voltage
- ▲ advanced electronic technology
- ▲ flashing LED
- ▲ can be used on security systems
- ▲ electrically compatible with Series 60
- ▲ mechanically compatible with Series 60
- ▲ proven detection performance
- ▲ designed to meet UL approvals



Context Plus Series 65A incorporates well-proven sensing technologies, together with advances in materials and electronics technology, including an IC based on that used in XP95 analogue addressable detectors.

Having a wide operating voltage of 9-33V, the Context Plus Series 65A range consists of ionization, integrating ionization and photo-electric smoke detectors, 2 grades of thermal detector and a standard base. The detectors are identical in appearance to Series 60. Each type of detector has an LED which flashes continuously in stand-by mode.



Context Plus Series 65A Ionization Smoke Detector

The sensing part of the detector consists of two chambers - an open, outer chamber and a semi-sealed reference chamber within. Mounted in the reference chamber is a low activity radioactive foil of Americium 241 which enables current to flow between the inner and outer chambers when the detector is powered up. As smoke enters the detector, it causes a reduction of the current flow in the outer chamber and hence an increase in voltage measured at the junction between the two chambers. The voltage increase is monitored by the electronic circuitry which triggers the detector into the alarm state at a preset threshold. An externally visible red LED lights up when the detector changes to alarm state.



Context Plus Series 65A Photo-electric Smoke Detector

Photo-electric smoke detectors incorporate a pulsing LED located in a chamber within the housing of the detector. The chamber is designed to exclude light from any external source. At an angle to the LED is a photo-diode which normally does not register the column of light emitted by the LED. In the event of smoke from a fire entering the chamber, the light pulse from the LED will be scattered and hence registered by the photo-diode. If the photo-diode "sees" smoke on the two following pulses, the detector changes into the alarm state and the indicator LED lights up. The detector housing is identical to that of the ionization detector but has an indicator LED which is clear in stand-by state but produces red light in alarm.

SPECIFICATION SUMMARY

Typical data at 73°F

Context Plus Series 65A ionization smoke detectors

Detector	Context Plus Series 65A Ionization/ Integrating Ionization
Features	Flashing LED
Part No	55000-226 IMC
Supply voltage	9 to 33V
Average stand-by current at 24V	45µA
Average stand-by current at 9V	21µA
Alarm current at 24V	52mA
Alarm current at 9V	17mA
Alarm indication	Red LED
Ambient temperature	32 to 158°F
Max wind continuous	2,000ft/min
Remote output (R-) characteristics	Current sink to -ve line, limited to 17mA. <i>Note: when using a remote indicator a current-limiting series resistor may be required.</i>

Context Plus Series 65A photo-electric smoke detectors

Detector	Context Plus Series 65A Photo-electric
Features	Flashing LED
Part No	55000-326 IMC
Supply voltage	9 to 33V
Average stand-by current at 24V	45µA
Average stand-by current at 9V	40µA
Alarm current at 24V	52mA
Alarm current at 9V	17mA
Alarm indication	Clear LED, Red in alarm
Ambient temperature	32 to 100°F
Max wind continuous	not affected
Remote output (R-) characteristics	Current sink to -ve line, limited to 17mA. <i>Note: when using a remote indicator a current-limiting series resistor may be required.</i>

Context Plus Series 65A thermal detectors

Detector	Context Plus Thermal Series 65A Thermal	Context Plus Series 65A Thermal
Features	Flashing LED	Flashing LED
Rating	Ordinary	Intermediate
Part No	55000-139 IMC	55000-145 IMC
Supply voltage	9 to 33V	9 to 33V
Average stand-by current at 24V	55µA	55µA
Average stand-by current at 9V	50µA	50µA
Alarm current at 24V	52mA	52mA
Alarm current at 9V	17mA	17mA
Alarm indication	Red LED	Red LED
Ambient temperature	32 to 100°F	32 to 100°F
Max wind continuous	not affected	not affected
Remote output (R-) characteristics	Current sink to -ve line, limited to 17mA. <i>Note: when using a remote indicator a current-limiting series resistor may be required.</i>	

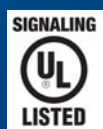
Context Plus Series 65A bases

Base type	Standard
Part No	45681-200 IMC
Supply voltage	9 to 33V
Normal operating temperature (no condensation or icing)	32 to 100°F

Context Plus Series 65A has been tested and approved to the following standards:

UL 268 – photo-electric and ionization smoke detectors (File No. S24127)

UL 521 – thermal detectors (File No. S24128)



Detectors have been declared as being compliant with the essential requirements of the EMC Directive 98/336/EEC and the Construction Products Directive 89/106/EEC.



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