



# Analog/Addressable Photo Smoke Detector

**55000-650**

*Analog Addressable Photoelectric Smoke Detector  
XP95 series*

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## DESCRIPTION

The XP95 series photoelectric smoke detector, model 55000-650, uses an internal pulsing LED and a photo-diode at an obtuse angle. In clear air conditions the photo-diode in the XP95 detector receives no light from the LED and produces a corresponding analog signal.

The signal increases when smoke enters the chamber and light is scattered onto the photo-diode. The signal is then processed by the circuitry and transmitted to the control equipment in exactly the same way as in case of the ionization smoke detector.

The photoelectric smoke detector is externally identical to the ionization detector, but is distinguished by having a clear indicator LED which emits red light when the detector is in alarm.

The XP95 series analog/addressable photoelectric type smoke sensor head is molded from white polycarbonate material with wind resistant smoke inlets and an insect resistant screen.

Stainless steel wiper contacts connect the sensor to the terminals, which are polarity insensitive, in the mounting base. Inside the sensor case is a circuit board with the sensing system on one side and the address capture, signal processing, and communication electronics on the other side.

The photoelectric system operates on the light scattering principle. When smoke enters the optical chamber it scatters light in proportion to the smoke characteristics and density. The sensor's electronics read the analog value, convert that value to a digital signal and communicate the digital signal to the FACP. The alarm threshold is programmed into the FACP.

Each detector can be addressed from 1 to 127, using a binary setting principal. A programming card is inserted into the base to give the detector head its address. Each programming card has removable binary numbers to make up the address. The removable numbers are 1, 2, 4, 8, 16, 32, and 64. As an example, a detector addressed at number 10 would have the numbers 8 and 2 removed.



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## FEATURES

- UL Listed
- MEA Listed
- CSFM Approved
- Compatible with the G-Force 4200 panel
- Wind resistant smoke inlets
- Insect resistant screen
- Alarm flag for fast alarm reporting
- Alarm address for fast location of alarm
- Automatic addressing with the XPERT card
- Electronics free 4" or 6" bases
- Slide-easy bases
- Ease of installation
- Elegant design
- Manufactured by Apollo Fire Detectors Ltd.



**4" base & XPERT card**



55000-650

## Analog/Addressable Photo Smoke Detector

### ORDERING INFORMATION

<u>Model No.</u>	<u>Description</u>
55000-650	Analog/Addressable photoelectric smoke detector head
45681-250	6" EZ fit base for XP95 addressable detectors
45681-242	6" relay base for XP95 addressable detectors
SDR-XP95	6" sounder base for XP95 addressable detectors, steady or temporal

### SPECIFICATIONS

<b>SLC Wiring:</b>	2 wire supply, polarity insensitive	<b>Remote Alarm LED:</b>	4mA @ 5V
<b>Supply Voltage:</b>	16-28VDC	<b>Termination:</b>	Stainless Steel, Nickel Plated
<b>Current Consumption:</b>	280 $\mu$ A (.00028 Amp)	<b>Field Wiring/Base</b>	
<b>Wind Speed:</b>	3000 ft./min. (15m/s) Caution: sensors subjected to continuous velocities above 300 ft./min. may require more frequent maintenance	<b>End-of-Line resistor:</b>	None
<b>Ceiling Spacing:</b>	30ft.	<b>Chamber Configuration:</b>	Horizontal optical bench housing an infrared emitter and sensor arranged radially to detect forward scattered light
<b>Sensitivity:</b>	2.05 $\pm$ 1.55%/ft. nominal for 55 counts fixed alarm threshold	<b>Storage Temperature:</b>	-20° F to + 175° F (-29° C to +80° C)
<b>Terminations: (Detector Head)</b>	Stainless steel wiper contacts	<b>Operating Temperature:</b>	0° F to + 155° F (-18° C to +68° C)
<b>Style:</b>	Styles 4, 6, and 7	<b>Continuous Operating Range:</b>	+32° F to + 100° F (0° C to +38° C)
<b>Address Setting:</b>	XPERT Card, binary	<b>Humidity:</b>	0% to 95% RH (No condensation or icing)
<b>Alarm Indicator:</b>	Clear LED emitting red light	<b>Dimensions:</b>	4" x 1.65" (100mm x 40mm)
<b>Materials:</b>	Sensor housing is white polycarbonate, V-O rated to UL 94	<b>Weight:</b>	3.75 oz. (106g)
<b>Atmosphere Pressure:</b>	Unaffected	<b>Mounting:</b>	4" or 6" round base



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