

# Model S270 Intrinsically Safe Smoke Detector



- **Photoelectric type Smoke Detector with removable, high performance chamber**
- **Two LED alarm indicators provide 360° visibility**
- **Optional Remote Alarm Indicator**
- **Certified by BASEEFA to II 1G EEx ia IIC T5 (-20°C to +55°C)**
- **Ingress protection IP42**
- **Suitable for installation in hazardous locations at ATEX gas classification category 1, 2 or 3**
- **LPCB approved to EN54-7 Fire Detection and fire alarm systems as an automatic smoke detector**
- **Certifications are approximately equivalent to US Class I Division 1 Groups A,B,C,D hazardous (classified) locations**
- **Germanischer Lloyd type approved for Marine use**

Intrinsically safe detectors are used in hazardous locations where explosive levels of gas or vapors are normally or potentially present. The Model S270 circuit power levels are limited so the potential to ignite an explosive atmosphere is eliminated.

Intrinsically safe detectors must be compatible with the system control panel for proper use. An intrinsically safe barrier must be installed at the point where the intrinsically safe circuit connects to the fire alarm control panel. The barrier limits the available voltage and current available on the circuit to safe levels.

The Model S270 Smoke Detector is a photoelectric detector designed for use in hazardous areas. Each detector incorporates a unique high performance photo chamber technology, removing the need to use

ionization detectors in a majority of applications. The high performance chamber has also enabled the detector threshold level to be increased, thereby improving the signal to noise ratio and reducing susceptibility to false alarms.

The smoke detector is installed into its accessory base with a simple twist-lock action. Operating power is provided over the 2-wire detection circuit from the Control System. Proper operation of the detector is indicated by two red Light Emitting Diodes (LED), which provides a local, 360° visual indication of detector status. For installations where the detector is not visible (such as above a false ceiling), a remote LED may be connected to the unit. When the detector senses a fire, it latches into alarm and remains in this condition until reset from the NOVA-5000 System control panel.



## TECHNICAL SPECIFICATIONS

<b>Detection Method:</b>	High Performance Photoelectric Chamber Chamber is removable for easy maintenance.
<b>Operating Voltage:</b>	15 to 30 VDC Provided over 2-wire detection circuit by the SST NOVA-5000 Control System.
<b>Quiescent Current:</b>	50 $\mu$ A
<b>Alarm Current:</b>	50 mA
<b>Operating Environment:</b>	+14 to +122°F, -10 to +50°C temperature Maximum 95% relative humidity Humidity should be below the dew point (non-condensing).
<b>Intrinsic Safety Rating:</b>	II 1G EEx ia IIC T5 (-20°C to +55°C)
<b>Ingress Protection:</b>	IP42
<b>Case Material:</b>	White or Ivory ABS Plastic
<b>Size/Weight:</b>	100 mm diameter x 38 mm high, 8 grams 3.94 inches diameter x 1.5 inches high, 4 ounces
<b>Base Mounting centers:</b>	48 to 74 mm 1.88 to 2.9 inches

## ORDERING INFORMATION

PART NUMBER	DESCRIPTION
270-02	<b>Model S270 Intrinsically Safe Smoke Detector</b> Requires mounting base for installation.
280-14	<b>Intrinsically Safe Mounting Base</b> Installs on US standard 3 to 4 inch round, square or octagonal wiring box. Provides twistlock plug-in for detector.
288-98	<b>Remote Alarm Indicator</b> Mounts on US standard single gang outlet box.



## REQUIRED ACCESSORY

PART NUMBER	DESCRIPTION
289-02	<b>Intrinsically Safe DC Isolator</b> Use quantity one to connect each intrinsically safe field circuits to the SST Model 5010 Smoke/Fire Detection Module.



**SAFETY SYSTEMS TECHNOLOGY (NV), INC.**

23282 Mill Creek Drive, Suite 215, Laguna Hills, California 92653 USA  
Tel. 1-949-583-1857 Fax 1-949-340-6643 <http://www.safetysys.com>