

SuperPASS™ 3 FEATURES

Reset Buttons
Alarm Button

LEDs Illuminate the Case During Sensing, Pre-Alarm & Full-Alarm Modes

Protective Silicone Cover Protects PASS from Severe Impact, Vibration & High Temperatures

Resonating Sound Ports

SA-Clip For Attaching PASS When Using Without SCBA

Wire Attachment Clips PASS to SCBA



ANSI/UL 913
CSA C22.2 No. 157
E112722
SuperPASS 3 and TPASS 4 Models - Intrinsically Safe per ANSI/UL 913. For use in Class I, Groups C and D; and Class II, Groups E, F and G; Division 1 Hazardous Locations.
• Operating Temperature Code T6
• Consult Instruction Manual before replacing batteries.
• Replace batteries with "AA" Alkaline, 1.5 volt, Duracell MN1500.
• Warning: To prevent ignition of a hazardous atmosphere, batteries must only be changed in an area known to be non-hazardous.
• Avertissement: Afin de prévenir l'inflammation d'atmosphères dangereuses ne changer les batteries que dans des emplacements désignés non dangereux.
Grace Industries, Inc. Fredonia, PA

GRACE INDUSTRIES SuperPASS™ 3

NFPA 1982, 2007ed., COMPLIANT PASS

MADE IN USA



SuperPASS™ 3 SPECIFICATIONS

Motion Sensor: 3-axis, solid-state, accelerometer enhanced durability

Activation: Auto-on with Proprietary Accountability Key

Case: Rugged, High Temperature, Impact Resistant, Translucent Yellow Radel polymer, encapsulated in a protective silicone cover

Attachments: Two methods - Wire clip and universal "SA-clip"

Silicone Cover: Rugged, Durable, High Temperature, Impact Resistant, Translucent, Protective Silicone Cover. Field replaceable.

Status Display: Large 6-character, Alphanumeric, LED read-out of PASS status and External Temperature (RTD Model Only)

Alarm Audio Output: Dual resonating sound cavities produce 95+ dBA @ 10ft with Sound Discernability 6 dBA against given background noise

Real Time Clock: Records accurate date and time information

Data Logging: Records over 8,000 PASS status changes in a non-volatile memory with date and time log. Data is downloadable to any PC

Switching: Solid-state magnetic activation

Batteries: 4 Duracell MN1500, AA, 1.5 Volt Alkaline

Battery Life: Over 200 hours in Sensing Mode and 10 to 12 hours in Alarm

Product Life: 3 to 5 years depending on frequency of use

Dimensions: 3" wide, 4-9/16" high, 2-5/16" deep

Weight: 16 ounces with batteries (without Accountability Key)

Certifications:

- Certified Compliant: to NFPA 1982, 2007 edition
- Certified Intrinsically Safe to ANSI/UL 913: Class 1, Groups C and D; and Class II, Groups E, F and G; Division 1 hazardous locations
- CSA Compliant: CSA C22.2 No.157
- Ingress Protection: Rated equivalent to IP67 (dust tight, effects of immersion)

Warranty - 1 year from date of purchase



FLASHING LEDs When in Alarm

The ONLY Stand - Alone Personal Alert Safety System

GRACE INDUSTRIES, INC.
Solutions for Life Safety

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QUALITY SYSTEM REGISTERED TO ISO 9001-2000

SuperPASS™ 3 NFPA 1982, 2007ed., COMPLIANT PASS



Design

SuperPASS™ 3 was designed and tested to meet the life safety needs of firefighters. It is third party certified Compliant to NFPA 1982, Standard on Personal Alert Safety Systems (PASS), 2007 Edition.

Meets or exceeds the 2007 Edition Standard Requirements for PASS

- **PASSED!** High Temperature Functionality Test: 500° F for five minutes and exceeded 95 dBA sound pressure at 9.9 feet
- **PASSED!** Heat and Immersion Leakage Test: 6 cycles; 15 minutes at 350° F and then immersed in 64° F water, 4.9 feet deep for 15 minutes
- **PASSED!** Tumble - Vibration Test: Three hours at 15 rpm, for a total of 2700 revolutions/drops in a four foot diameter tumbling apparatus
- **PASSED!** Muffle Test: Sound level evaluated in all five testing positions, exceeded 95 dBA sound pressure at all positions at 9.9 feet

Motion Detection

Grace Industries employs a NEW state of the art method of detecting motion. This solid-state, 3-axis

accelerometer senses a broad range of motion and is not position sensitive. This results in fewer false alerts which are common in similar motion detectors.

Visibility

Grace Industries specializes in integration of high intensity LEDs that illuminate from inside the case, causing the PASS to glow. These LEDs strobe, flash and pulsate indicating PASS status; Sensing, Pre-alert and Alarm Modes. These colors and patterns include those that are most easily recognized.

Sound Intensity and Sound Discernability

Dual resonating sound cavities produce 95+dBa, making SuperPASS™ 3 the loudest NFPA Compliant Stand-alone PASS available to the fire service. More important, the sound signature is designed to generate multiple tones that sweep through a range of 500 - 4,000 Hz. This sound signature incorporates a momentary pause every 4 seconds, allowing the PASS to be identified and tracked audibly.

Durability

Grace's new generation of PASS products were re-engineered to meet the rigorous durability requirements of the fire service. The primary function of the protective translucent silicone cover protects the PASS from severe impact, vibration and the adverse effects of high temperature exposure. The Radel plastic enclosure is a high temperature advanced polymer which protects the PASS from exposure to moisture, chemicals and other hostile agents.

Attachment Methods

Two methods of attachment are provided for ease of use. The time tested wire clip easily captures and securely holds the PASS to SCBA straps. Or use the "SA-clip" that enables the end user to easily attach the PASS to turn-out gear in a stand-alone configuration for use without an SCBA.

Data-Logging

The SuperPASS™ 3 automatically records a data-log of all PASS status change events. The data-log is stored in non-volatile memory and can be retrieved via the infrared port on the PASS by utilizing the Grace data-log retrieval software. The required data-log events are time and date stamped down to 1 second resolution. The last 8,192 events are stored.

Two Temperature Sensing Models

Resistance Temperature Detector - RTD



Top view of SuperPASS™ 3 Showing Temperature of the Present Environment

Introducing the first temperature display that provides firefighters with accurate feedback of the environmental temperature. The rugged RTD sensor monitors the temperature of the environment firefighters routinely encounter. The RTD accurately senses temperature readings up to 1,000° F with the reading displayed on a large LED readout. Temperature information is easy to read in a dimly lit or smoke filled environment. The RTD temperature readout can be displayed in Centigrade or Fahrenheit. An audible warning is activated when firefighters are exposed to potentially dangerous temperatures. A time weighted average of heat exposure activates the audible heat alarm when the environmental conditions reach predetermined levels. The SuperPASS™ 3 RTD feature is available only on Model SP3-RTD.

Integrated Temperature Detector

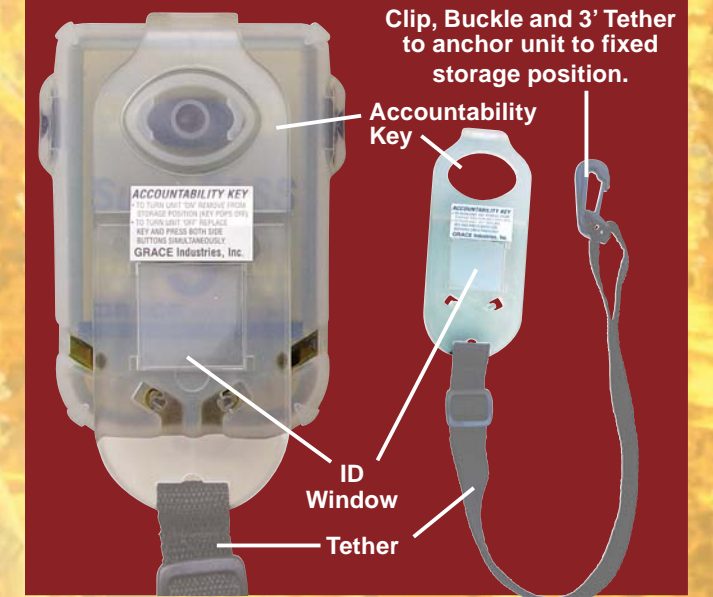
SuperPASS™ 3, Model SP3-H, is available with integrated temperature sensing. This internal sensor monitors thermal inertia exposure. When the firefighter exceeds a predetermined time weighted average temperature threshold, the audible heat alarm is activated.

Approximate response times for optional Integrated Temperature Detector:

350° F	6 Minutes	250° F	9 Minutes
300° F	7 Minutes	200° F	12 Minutes

* Response times listed are approximate due to the variance of environment factors and the thermal heat sensing system.

SuperPASS™ 3 Accountability Key



The Accountability Storage Key is an added benefit of Grace Industries' SuperPASS™ 3. The clear Identification Window provides the opportunity to specifically identify the user through the ability to personalize the keys with photos, names, numbers, department ID, bar-codes, etc. The clear access window easily snaps into place to protect the enclosed information and provide instant access for rapid identification.

When the Accountability Key is removed, SuperPASS™ 3 turns "On", and the operational signal is heard. A visual green LED wig-wag display indicates that the SuperPASS™ 3 unit is in the "Sensing" mode.

Manual Alarm

While in the "Sensing" mode, SuperPASS™ 3 may be put into "Alarm" at any time by manually pressing the "Alarm" button located on the front surface of the unit.

Battery Life

Re-engineered electronics and power supply, using four AA batteries triples previous PASS battery life. Expect over 200 hours in Sensing Mode and 10 to 12 hours in Alarm.