

EXHIBIT C

Instructions

95-8576

Protect•IR® Multispectrum IR Flame Detector
X3302





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Multispectrum IR Flame Detector

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IMPORTANT

Be sure to read and understand the entire instruction manual before installing or operating the flame detection system. Any deviation from the recommendations in this manual may impair system performance and compromise safety.

ATTENTION

*The X3302 includes the Automatic Optical Integrity (oi®) feature — a calibrated performance test that is automatically performed once per minute to verify complete detector operation capabilities. **No testing with an external test lamp is required.***

DESCRIPTION

The X3302 brings state-of-the-art IR flame detection to the difficult task of detecting invisible hydrogen flames. Focusing on the water-band IR emissions of hydrogen flame, the X3302 overcomes the limited detection range and false alarm tendencies of other flame detectors by employing field proven multispectrum infrared (MIR) technology. The result is unsurpassed flame sensitivity with discrimination of non-flame sources in situations where traditional flame detectors are unsuitable.

Utilizing the X3301's multi-patented* signal processing algorithms, the X3302 provides a breakthrough in flame detection/surveillance of hazardous materials that produce mostly water vapor, and little or no CO₂ in the combustion process. The detection capability of the X3302 is double that of traditional UV and UVIR detectors. At the same time, it attains complete solar resistance and insensitivity to artificial lights, lightning, and "blackbody" radiation, which still plague other detection technologies.

*oi is Detector Electronics' Trademark for its patented Optical Integrity Systems, U.S. Patent 3,952,196, United Kingdom Patent 1,534,969, Canada Patent 1,059,598.

Multispectrum technology advancements are covered under the following U.S. Patents: 5,995,008, 5,804,825 and 5,850,182.

The detector has Division and Zone explosion-proof ratings and is suitable for use in indoor and outdoor applications.

The standard output configuration includes fire, fault and auxiliary relays. Output options include:

- 4 to 20 mA output (in addition to the three relays)
- Pulse output for compatibility with existing controller based systems (with fire and fault relays)
- Eagle Quantum Premier (EQP) compatible model (no analog or relay outputs).

A multi-color LED on the detector faceplate indicates detector status condition.

Microprocessor controlled heated optics increase resistance to moisture and ice.

The X3302 housing is available in copper-free aluminum or stainless steel, with NEMA 4X and IP66 rating.