



Fire Sentry Flame Detection for the Finishing Industry from Honeywell Analytics

DASTEC S.R.L.
Distribuidores Autorizados
Buenos Aires, Argentina
Tel.: (54-11) 5352-2500
E-mail: info@dastecsrl.com.ar
Web: www.dastecsrl.com.ar

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Fire Sentry FS10-R Detector and FS System 10

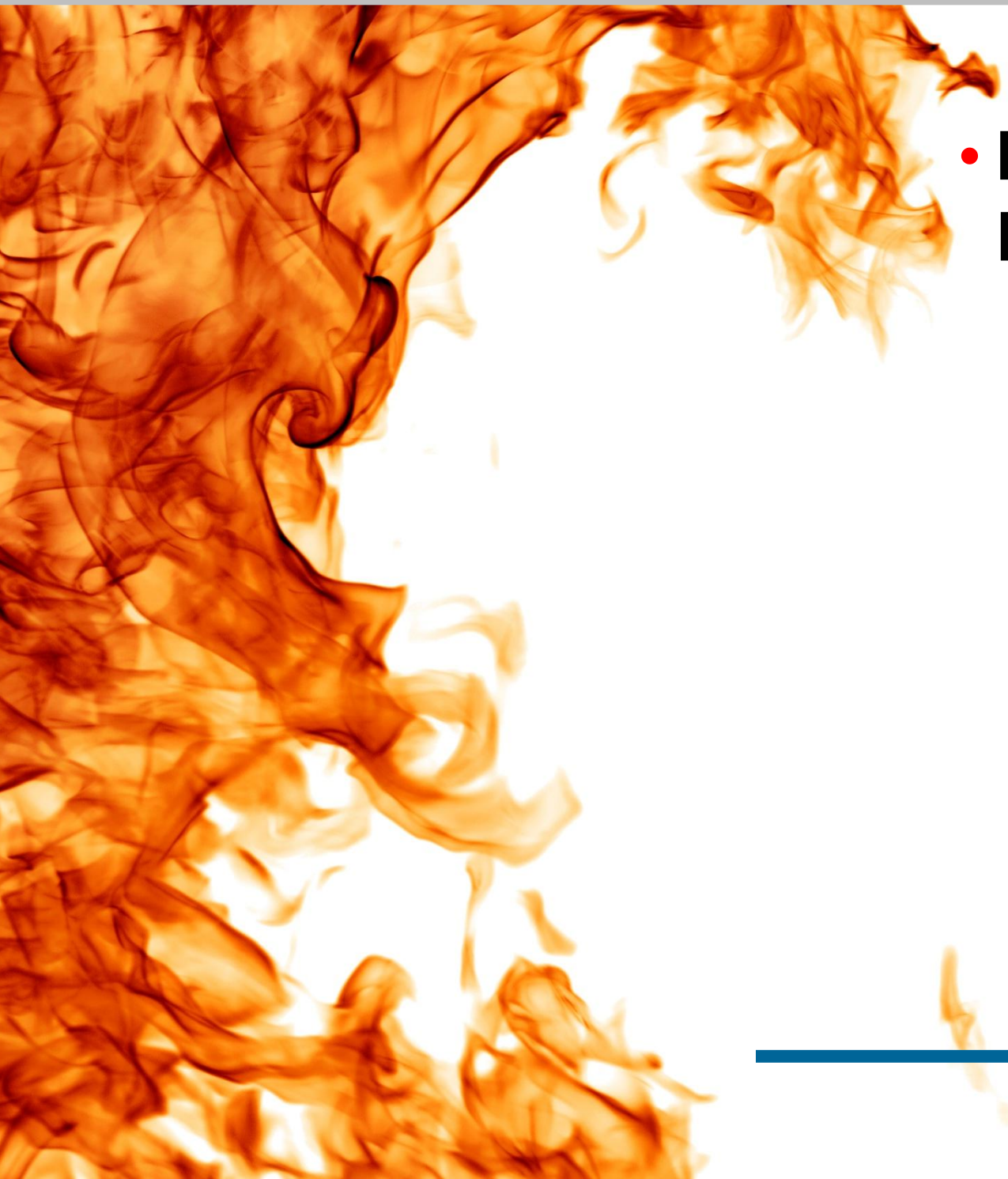
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- **High-speed, microprocessor-based fire detection (Fire Sentry FS10-R) and process control system (FS System 10) specifically designed for liquid spray paint and powder coating applications**
 - **All other manufactures of flame detectors use their standard UV, UV/IR or IR3 for finishing applications**
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Products and Applications

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- **Multi-Spectral Electro-Optical Infrared Flame Detector**
 - Near Band IR: 0.7 – 1.1 micrometers
 - Wide Band IR: 0.7 – 3.0 micrometers
 - Visible: 400 – 700 nanometers
 - Senses the blackbody radiant heat emitted by a fire
 - Does not rely on the unpredictable CO₂ spike at 4.3μ
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Fire Sentry FS10 Overview

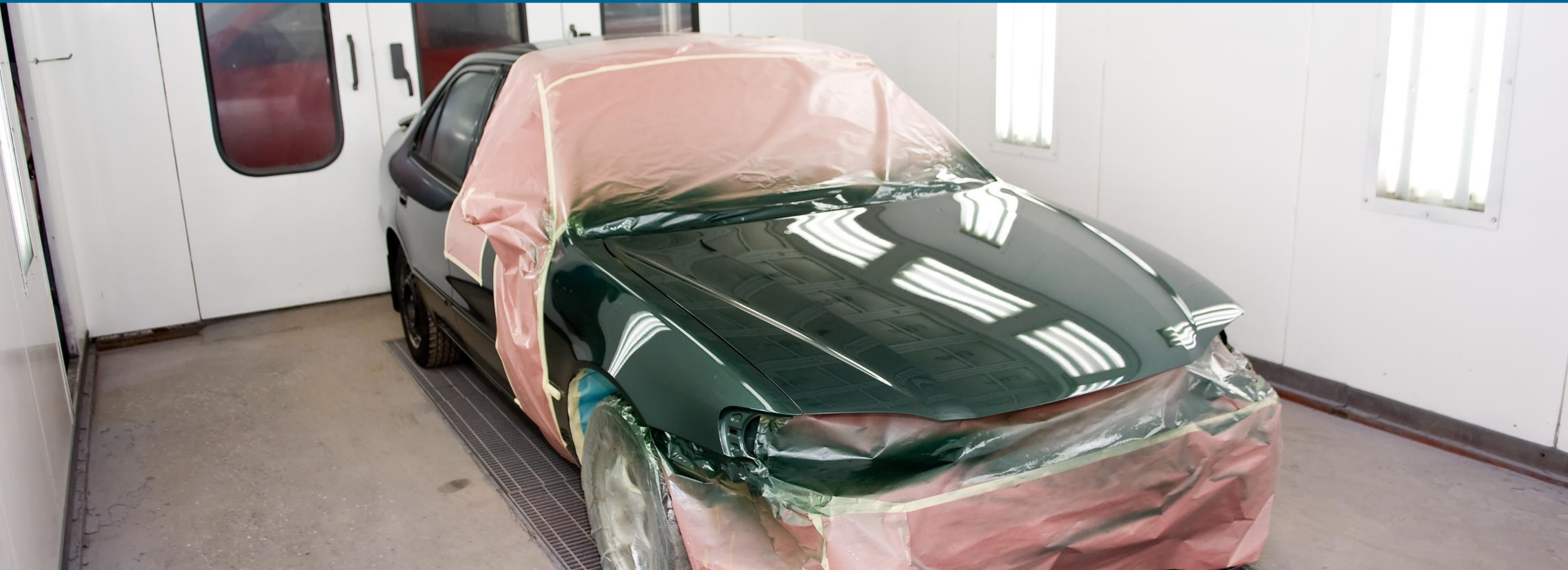
- Sees through smoke, contaminants on detector lens and aerosols. Cannot be blinded by smoke and paint over-spray mist in its optical path.
- Responds to fires within 500 milliseconds as required by NFPA 33 and does not false alarm to non-fire radiant energy sources.
- Air shield and disposable protective cover provide protection from contamination on the lens, substantially reducing the maintenance required for the cleaning of the flame detector lens.

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Fire Sentry FS10 Applications

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- Automotive Electrostatic Paint Spray Lines
- Liquid Paint & Powder Coating Spray Lines
- Liquid & Powder Coating Booths
- Paint Storage and Mixing
- Aerosol Filling Applications



Fire Sentry FS10 Detector

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- **For use with electrostatic powder and liquid paint applications**
- **TWO different SYSTEMS**
 - Standalone or Unitized Fire Sentry FS10-R detector
 - Fire Sentry FS10 Wall-Mount system



Fire Sentry FS10-R Unitized



General Finishing:

Liquid & Powder Coating



24 VDC

(1) ALERT Relay – NO Normally De-Energized (0.5 sec Response)

(1) FIRE ALARM Relay – NO Normally De-Energized (4 sec Response)

(1) FAULT Relay – NC Normally Energized

RS-485 FireBus II™ Protocol to PC

Note: Available detector sensitivity options: 15, 30, or 45 ft.

Fire Sentry FS10 Wall-Mount Controller



Primary Application: Paint Booths



120VAC or optional
240VAC



- (1) ALERT Relay – NO/NC Normally De-Energized (0.5 sec Response)
- (1) Fire Alarm Relay – NO/NC Normally De-Energized (3-5 sec Response)
- (1) FAULT Relay – NO/NC Normally Energized
- (3) PROCESS SHUTDOWN Relays – NO/NC Normally Energized
- RS-232 PC Communication

Note: Detector sensitivity options: 15 or 30 ft.

Fire Sentry FS10: Two-Stage Response

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- **1st Stage: *Alert / Early Warning***

- Response to a “fireball” type fire, signals to shutdown spray guns
- Alert: 0.3 sec. response with a 15 ft. sensitivity
- FEW (Fire Early Warning): 0.5 sec. with a 7.5 ft. sensitivity
- Relay Output: 1 NO De-Energized

- **2nd Stage: *Fire Alarm***

- Response to a burning fire, or if fireball does not self-extinguish, signals to take an action or initiate suppression discharge
- Alarm: 5 sec. response with a 30 ft. sensitivity
- Relay Output: 1 NO De-Energized



Fire Sentry FS10 Features

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- **Built-in automatic self-test includes a through-the-lens Optical Integrity test feature**
- **Detector enclosure rated for Class I, Division 1 & 2, Groups B, C, D**
- **Detector Sensitivity Options: 15, 30 or 45 ft. to a 1 sq. ft. gasoline fire**
- **Real-Time Clock**
- **Spectral Data: Six FirePics™**
- **Event Log: 200 Events**



Fire Sentry FS10 Features

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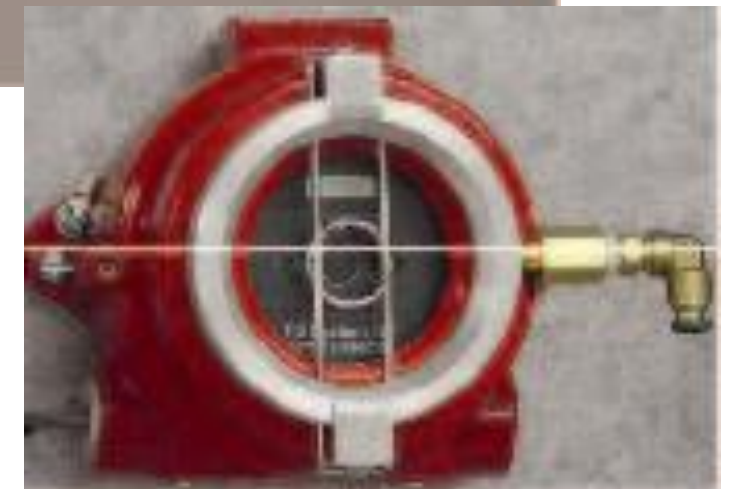
- **FirePic™** – Recorded pre-fire spectral data stored in the non-volatile memory, 6 events each 8 seconds in duration
- **Event Log** – History log of the recent 200 Events (alarms, faults, resets) with date and time stamp
- **Interfaces with approved fire alarm panels and control systems**
- **Low power consumption: 60 mA @ 24 VDC normal operation**



Fire Sentry FS10 Accessories

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- **A proven and effective air shield device (shown here) developed for FS10 detectors and used in Liquid and Powder Coating Applications**
- **Specially designed clear plastic disposable protective covers simply snap on and off the detector, protecting the lens from contamination from paint over-spray, eliminating unscheduled maintenance required to clean the detector lens.**



Fire Sentry FS10 Typical Usage

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- **Small Paint Booth (up to 10 ft.)**
 - 1 FS10-R Unitized Detector, or
 - 1 Card Controller + 1 Detector, or
 - 1 Wall-Mount Controller + 1 Detector
- **Large Paint Booth (10-36 ft.)**
 - 2 FS10-R Unitized Detectors, or
 - 2 Card Controllers + 2 Detectors, or
 - 1 Wall-Mount Controller + 2 Detectors



Fire Sentry FS10 Typical Usage

Honeywell

- **Large Powder Coating Facilities**
- **Automotive Liquid Spray Paint Lines**

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