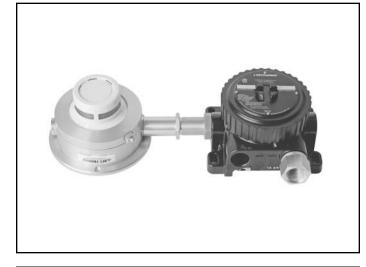
# A DET-TRONICS<sup>®</sup>

## SPECIFICATION DATA

### Smoke Detectors for Classified Areas

### U5005, U5006 Duct Mount



#### APPLICATION

The Det-Tronics U5005 Smoke Detector is a sensitive yet rugged, state-of-the-art protection device that is designed for classified areas in hazardous industrial and commercial locations. The detector is designed to operate effectively with both slow smoldering and fast burning fires. The U5005 Smoke Detector includes an external alarm indicating LED, as well as alarm, power supervision and auxiliary relays. Typical applications that use the U5005 include:

- · Combustible storage facilities
- Munitions manufacturing
- Volatile chemical storage
- Chemical processing plants
- · Petroleum refineries
- Turbine enclosures.

The Det-Tronics U5006 Air Duct Smoke Detector, using the technology of the U5005 Smoke Detector mounted inside a fiberglass NEMA 4X enclosure, is designed to detect the presence of smoke for the primary purpose of controlling blowers and dampers in air conditioning and ventilation systems. The unit mounts directly to heating, ventilating, and air conditioning ducts and uses a cross sectional sampling tube arrangement that allows large volume air sampling. The U5006 includes the same relay outputs as the U5005.

The detectors are intended to be connected to a control unit and function as part of a fire protection system (4-wire system, 2 wires for detector power and 2 wires for detector output).



FEATURES

- CSA Certified for use in Class I, Division 2, Groups A, B, C and D hazardous locations.
- Trouble-free photoelectric operation.
- Standard 4-wire 24 vdc operation.
- Designed to meet ANSI/UL 268A smoke obscuration limits.
- 600 to 4000 ft/min airflow range (duct mount model).
- Rugged design for environmental extremes.
- Self-checking circuitry ensures reliable smoke detection.
- Regulation photodiode, matched to the smoke detection circuit, adjusts output as necessary to compensate for accumulation of contaminants or environmental variations.
- Detector uses extensive filtering against RF and transient interference.
- Form A (SPST) N.O. alarm relay contacts (latching) for connection to alarm response circuitry.
- Form A (SPST) N.C. contacts for supervision of input power.
- Auxiliary Form C (SPDT) N.O./N.C. alarm relay for controlling remote annunciating devices.
- LED located on the outer surface of the housing is illuminated to provide a visual indication that an alarm condition has occurred.

SPECIFICATIONS						
OPERATING VOLTAGE	20 to 28 vdc filtered supply, with less than 1.4 vpp at 60 to 120 Hz.		WEIGHT	U5005: U5006:	1 ( 5 )	
OPERATING CURRENT	•	milliamperes. milliamperes.	DIMENSIONS	U5005:	L = 14.4 inches (36 W = 5.3 inches (13 D = 3.8 inches (9.7	.5 cm)
	Alarm: 50 r	milliamperes. milliamperes.		U5006:	L = 14.75 inches (3 W = 11.6 inches (2	9.5 cm)
TEMPERATURE RANGE		°F (–25°C to +60°C). °F (–55°C to +85°C).	SAMPLING TUBES	D = 6.1 inches (15.5 cm). Material: Galvanized steel tubing 3/4 inch EMT		
HUMIDITY RANGE (U5006 ONLY)	0 to 90% RH non-condensin	ng.	(U5006 ONLY)		length to be specified by customer (1, 3, 6,or 10 feet).	
AIR VELOCITY RANGE (U5006 ONLY)	600 to 4000 ft/min.			Return tube:	: 12 inch standard le tube.	ngth sampling
SENSITIVITY RANGE (U5006)	Meets ANSI/UL268A visible smoke obscuration limits: Grey smoke: 7.0% / ft maximum, 0.5% / ft minimum Black smoke: 10.0% / ft maximum, 0.5% / ft minimum.		ORDERING INFORMATION	When ordering, please specify:		
				U5005 Smoke Detector U5006 Air Duct Smoke Detector		
				When ordering the U5006, specify the air duct sampling tube length required. The air duct sampling tube provides a cross sec- tional sampling of air moving through the duct and is available in four lengths. The air duct sampling tube should cover the entire width of the duct, therefore, specify the shortest sampling tube that is at least the width of the duct to be protected. It can then be cut to the exact length at the job site.		
SENSITIVITY RANGE (U5005)	2.3% obscuration.					
ALARM AND SUPER- VISORY RELAY CONTACT RATING	1.0 ampere at 30 vdc, SPST.					
AUXILIARY ALARM RELAY CONTACT RATING	Y 2.0 amperes at 30 vdc, Form C, SPDT.			Available duct sampling tube sizes:		
FIBERGLASS ENCLOSURE (U5006 ONLY)	NEMA 4X. Cover is clea closed cell neoprene gasket stainless steel screws.			Description 1 foot length 3 foot length 6 foot length	n ST- 1 n ST- 3	Part Number 004783-001 004783-002 004783-003
CERTIFICATION	CSA Certified for Class I, Division 2, Groups A, B, C & D Hazardous Locations.			10 foot lengt	th ST- 10	004783-004

#### **Detector Electronics Corporation**

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**ISO 9001** 

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