

RT-3000 SERIES

NEMA 4X DUCT SMOKE DETECTORS
Weathertight, Hi-Temp, Low-Flow & No-Tools

FEATURES

- ❖ 180° visibility for all visual indicators with cover in place
- ❖ Operating voltages: 230VAC, 115VAC, 24VAC, 24VDC
- ❖ Patented cover tether retains the one-piece cover at unit
- ❖ Flashing LED on detector head indicates normal operation, can be viewed with cover on
- ❖ Ionization and Photoelectric versions available
- ❖ Interconnect up to 30 units for common functions
- ❖ Works with the complete range of APC remote accessories to include all legacy duct detectors and sample tubes from APC
- ❖ Compatible with building automation and fire alarm systems

Installation - Mechanical

- ❖ Patented cover latch offers the industry's only no-tools single point cover assembly
- ❖ Patented cover tether keeps cover at unit for convenience
- ❖ Patented no-tools front or rear loading and removing sampling/exhaust tubes
- ❖ All gaskets are permanently attached and pre-installed

Installation - Electrical

- ❖ Patented no-tools terminal blocks for easier wiring with built-in test meter probe access
- ❖ Intuitively labeled terminal positions
- ❖ Dedicated and segregated terminal blocks for power input, FACU interface, relay control, remote accessories and detector interconnection
- ❖ No confusing "special programming" required
- ❖ Permanently attached wiring diagram on inside front cover
- ❖ Two sets of 10A form "C" alarm contacts
- ❖ One set of 10A form "C" trouble contacts
- ❖ One set of 1A form "A" alarm contacts and one set of 7A form "B" trouble contacts for FACU interface

Testing

- ❖ Patented Maintenance Mode offers 3-minute interval for test and maintenance functions with no extra trouble reports to the system (auto shut-off upon cover latch engagement)
- ❖ Patented Test Port allows for aerosol smoke testing without cover removal
- ❖ Magnet test capability (magnet included)

Service

- ❖ Standard interchangeable "twist-in" UL268 photoelectric or ionization heads for easy cleaning and replacement
- ❖ Advanced detector head design yields internal dust filtering
- ❖ Front no-tools sampling tube removal and replacement provides for simple inspection of debris accumulation
- ❖ Compatible with all legacy APC remotes, duct detectors and sample tubes

Performance

- ❖ NEMA 4X watertight enclosure for non-hazardous indoor and outdoor applications, to include corrosive environments
- ❖ Listed for air velocities between 100-4000 ft./min
- ❖ Ion and Photo models listed for applications ranging from -4°F to 158°F (-20°C to 70°C)



The RT-3000 builds on our commitment to installer/servicer friendly products, and significantly reduces the total cost of ownership versus other comparable products. Our attention to detail has yielded a host of "No-Tools Required" features, as well as a multi-application performance level as yet unmatched in the industry.

The weathertight NEMA 4X rated corrosion resistant enclosure coupled with extended temperature listings allow installation in the widest possible range of indoor/outdoor environments. The RT-3000 can be installed in both horizontal or vertical configurations to match installation preferences.

A simple flip of the cover latch releases or secures the NEMA 4X enclosure which houses:

- a next-generation control board with color-coded, trade-dedicated output terminals
- twist-in photo or ion sensor heads, providing a choice in matching technology to application
- a push-button timed Maintenance Mode that allows test and maintenance functions with no extra trouble reports to the system
- a uniquely constructed chassis that prevents accumulation of condensate commonly generated by the severe temperature changes these devices are typically exposed to

The truly innovative built-in features save time and money during install, testing and maintenance cycles.

Distributed By:

JACKSON
SYSTEMS
Controls Done Right™

PRODUCT SPECIFICATIONS

MODEL NUMBER:	RT-3000-N	Ionization: 230VAC, 115VAC, 24VAC, 24VDC
	RT-3000-P	Photoelectric: 230VAC, 115VAC, 24VAC, 24VDC
DETECTOR MODEL NUMBER:	RT-3000-N	55000-225
	RT-3000-P	55000-328
SAMPLING TUBES:	FAST Tube	Sectional sampling tube, kit fits up to 90" duct width
	STN-1.0	Metal sampling tube for 6" to 12" duct width
	STN-2.5	Metal sampling tube for 12" to 3.0' duct width
	STN-5.0	Metal sampling tube for 3.0' to 5.0' duct width
	STN-10.0	Metal sampling tube for 5.0' to 10.0' duct width
ACCESSORIES:	MSR and MS-Series remote accessories, TG-2000 aerosol test gas, and T-PB power supplies (All available from Air Products and Controls Inc.)	
POWER REQUIREMENTS: (without accessories)	230VAC	17 mA
Standby:	115VAC	31 mA
	24VAC	122.6 mA
	24VDC	45 mA
Alarm:	230VAC	29 mA
	115VAC	50 mA
	24VAC	251 mA
	24VDC	100 mA
RELAY CONTACT RATING:		
Alarm Contacts:	Resistive load: 2 sets form "C" rated at 10 Amps @ 125VAC Resistive load: 1 set form "A" rated at 1 Amp (FACP) @ 30VDC	
Trouble Contacts:	Resistive load: 1 set form "C" rated at 10 Amps @ 125VAC Resistive load: 1 set form "B" rated at 7 Amps (FACP) @ 30VDC	
AIR VELOCITY:	100 to 4,000 ft./min.	
AMBIENT TEMPERATURE:	RT-3000-N	-4°F to 158°F (-20°C to 70°C)
	RT-3000-P	-4°F to 140°F (-20°C to 60°C)
HUMIDITY:	10% to 93% RH (@32°C) Non-Condensing / Non-Freezing	
WIRING:	Solid or stranded: #14 to #24 AWG terminals	
APPROVALS:	UL Listed (UL268A, UROX) File # S2829 CSFM Listed (3240-1004:105) (pending) MEA Accepted (73-92-E: VOL. 27) (pending)	
MATERIAL:	Grey plastic backbox, white plastic cover (Makrolon 94V-0)	
DIMENSIONS:	13 1/2" L x 5 1/2" W x 2 1/4" H	
MAX. NET WT.:	3 1/2 lbs.	
RADIOACTIVE ELEMENT:	For RT-3000-N (Ionization) Americium 241; 0.9 Micro-Curie	
HARDWARE:	7" exhaust tube, FAST Tube sectional sampling tube starter, sampling tube end cap, mounting template, test magnet, and mounting hardware included	
PATENTS:	6,741,181 • 7,204,522 • Other patents pending	

ENGINEERS & ARCHITECTS SPECIFICATIONS

- Air duct smoke detectors shall be Air Products and Controls Inc. RT-3000 Series. For ionization detectors the model number is **RT-3000-N**. For photoelectric detectors the model number is **RT-3000-P**. The detectors shall be listed by Underwriters Laboratories per UL 268A.
- The detectors shall operate at air velocities from 100 feet per minute to 4,000 feet per minute and at high temperatures of no less than 158°F (70°C).
- Shall provide visual pilot, trouble and alarm indications; shall provide instantaneous cover removal notification with maintenance by-pass
- The detector enclosure shall be NEMA 4X rated and shall prevent accumulation of condensate within the detection chamber
- Visual indication of alarm, trouble and power must be provided on the detector front, as well as a manual test and reset switch.
- Detector head shall not require additional filters or screens which must be maintained, and shall include both a standby and alarm visual indication.
- The housing shall contain a detector base which will accept photoelectric or ionization detector heads.
- Terminal connections shall require no tools for wire installation and shall be compatible with wire gauges between #14 and #22 AWG.
- Terminals shall be provided for remote pilot, remote alarm indications, strobe/horn, and remote test/reset switch. All wiring must comply with local codes and regulations.
- A method of testing the alarm function at the detector with a magnet and a method of smoke testing the detector without removing the cover must be provided.
- All unit, remote accessory, and common function connection designations must be permanently affixed to the unit.
- Cover and sampling/exhaust tube installation or removal must not require the use of tools.
- Capability for interconnection of up to 30 units shall be provided for common functions.
- Sampling and exhaust tubes shall be capable of removal/installation from the front and/or rear of the detector for inspection/maintenance.

NOTICE: The information contained in this document is intended only as a summary and is subject to change without notice. The products described have specific instructional/installation documentation, which covers various technical, approval, code, limitation and liability information. Copies of this documentation along with any general product warning and limitation documents, which also contain important information, are provided with the product and are also available from Air Products and Controls Inc. The information contained in all of these documents should be considered before specifying or using the products. Any example applications shown are subject to the most current enforced local/national codes, standards, approvals, certifications, and/or the authority having jurisdiction. All of these resources, as well as the specific manufacturer of any shown or mentioned related equipment, should be consulted prior to any implementation. For further information or assistance concerning the products, contact Air Products and Controls Inc. Air Products and Controls Inc. reserves the right to change any and all documentation without notice.