

**Features**

- Detects smoke in building HVAC ducts
- Ships complete with housing and head
- Compatible with addressable IPA and AFC/ARC series panels
- SLC Class A, Class X & Class B
- Installation without removing the head
- Listed Air Velocity of 100 to 4,000 ft/minute
- No screens or filters in housing
- Durable plastic enclosure and clear cover
- Integrated cover tamper switch
- Utilizes simple snap in sampling tubes STN series
- One form C relay
- Compatible with supervised PAD100-DRTS remote test switch, MS-RA, MS-KA/R, MS-KA/P/R remote indicators
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control



**Description**

The PAD100-DUCTR is designed and built to meet all local requirements, as well as the NFPA regulations regarding duct smoke detectors. Air sampling is accomplished by two tubes which protrude into the duct. An exhaust tube of one standard length (7") is supplied in the installation kit with the smoke duct unit. Once the duct width has been determined the air intake sampling tubes must be ordered. Sampling tubes are supplied in three standard lengths: 2.5 ft., 5 ft., and 10 ft. and cut to size to fit the duct. Mounting the duct smoke unit is accomplished by the use of a template and 2 sheet metal screws, which are provided. Mounting can be achieved without the removal of the clear cover which is secured by 4 capture screws.

**Application**

The Potter Electric PAD100-DUCTR duct smoke detector provides early detection of smoke and products of combustion present in air moving through HVAC ducts in commercial, industrial and residential applications. The PAD100-DUCTR is compatible with the IPA and AFC/ARC series addressable fire alarm control panels.

**Technical Specifications**

Duct Detector Model Number	PAD100-DUCTR
Operating Voltage	24 VDC
Current Draw	500 $\mu$ A
Detector Head Model	PAD100-DD
Detector Head Type	Photoelectric
Alarm Set Point	Fixed at 2.5%/ft
Sensitivity Test Method	Self diagnostic test
Air Velocity	100 to 4000 ft./min
Ambient Temperature	32°F to 120°F (0°C to 49°C)
Humidity	10% to 85% Relative humidity (non-condensing)
Housing Material	Plastic backbox, clear plastic cover
Finish	Gray backbox with clear cover
Dimensions	13 1/2" L x 4 1/2" W x 2 1/4" H
Maximum Net Weight	2 lbs.
Sampling Tubes	2.5 ft., 5 ft., or 10 ft.
Relay contact rating	8A@30VDC, 10A@120VAC, 10A@250VAC

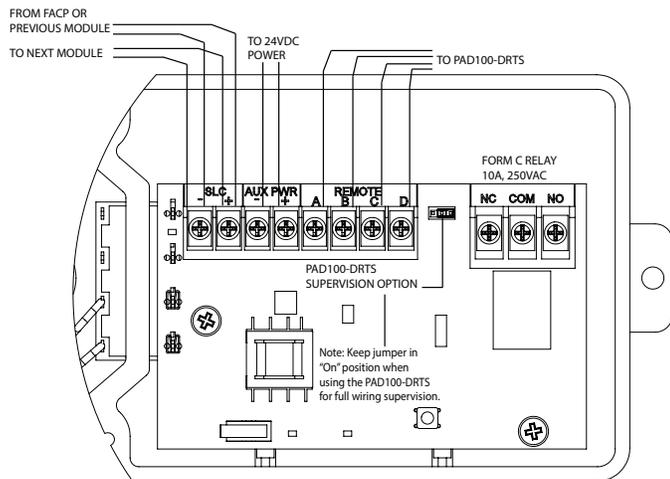
## Engineering Specifications

Air duct smoke detectors shall be Potter Electric PAD100-DUCTR Series. The detectors shall be listed by Underwriters Laboratories per UL 268A. The detectors shall operate at air velocities from 100 feet per minute to 4000 feet per minute. The duct detector housings shall be of plastic construction and complete mechanical installation may be performed without removal of detector cover. Visual indication of alarm and power must be provided on detector front. Detector heads shall not require additional filters or screens which must be maintained. The housing shall contain a detector base and PAD100-DD duct smoke detector head. Terminal connections shall be of the screw type and be a minimum of # 12 screw. All wiring must comply with local codes and regulations. Detector shall use the STN series of sampling tubes.

## Wiring Diagrams

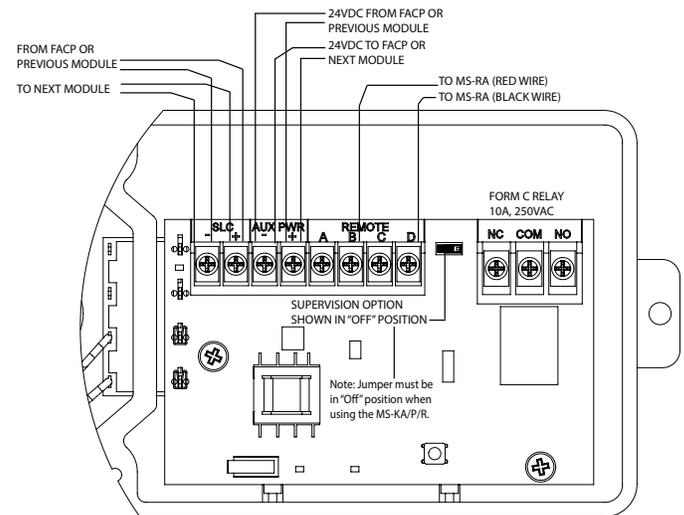
### PAD100-DRTS Wiring

Fig 1



### MS-KA/P/R Wiring

Fig 2



## Ordering Information

Model	Description	Stock No.
PAD100-DUCTR	Analog Addressable Duct Detector	3992712
PAD100-DRTS	Duct Remote Test Switch	3992711
MS-RA	Remote Annunciator	1000256
MS-KA/R	Remote Annunciator with Test/Reset Switch	1000254
MS-KA/P/R	Remote Annunciator with Test Switch	1000253

Model	Description	Stock No.
STN-2.5	2.5' Sampling Tube	1000274
STN-5	5' Sampling Tube	1000275
STN-10	10' Sampling Tube	1000276