

SS-PROBE-D4120 & SS-PROBE-D4120W Multi Voltage Conventional Duct Probe

FEATURES

- ✓ 4-Wire Photoelectric, integrated low-flow technology
- ✓ Versatile mounting options: square or rectangular configuration
- ✓ Plug-in sensor
- ✓ One easy-access Test/Reset button and improved LED status
- ✓ Two DPDT Form-C relay contacts
- ✓ 24VAC/DC or 120VAC
- ✓ Air velocity rating from 0.5 m/s to 20.32 m/s
- ✓ Able to be installed as a stand-alone detector
- ✓ Replaceable sensor head
- ✓ Multiple input voltages



PRODUCT DESCRIPTION

The SS-PROBE-D4120 4-wire photoelectric duct smoke detector features a pivoting housing that fits both square and rectangular footprints and mounts to round or rectangular ductwork. This unit senses smoke in the most challenging conditions, operating in airflow speeds of 0.5 to 20.32 metres per second, temperatures of -20°C to 70°C, and a humidity range of 0 to 95 percent (non-condensing). A plug-in sensor head offers improved false alarm immunity and simple installation, testing, and maintenance. An improved cover design isolates the sensor head from the low-flow feature for simple maintenance.

The housing provides ample wiring space, a 20mm conduit knockout, and built-in short circuit protection to prevent damage to sensitive components during installation. High contrast terminal designations make wiring easy. As many as 50 detectors can be interconnected. When one unit senses smoke, all interconnected detectors will switch their relays; only the detector sensing smoke will go into alarm, thus pinpointing the fire source.

An easy-access Test/Reset button makes it possible to test the unit with the cover on. Three DIP switches can be used to configure field selectable settings: cover tamper delay, number of sensors to be controlled, and shut down on trouble option. Each power board has two LEDs that can be used to indicate the status of connected sensors, and a quick reference imprinted on the cover explains the LED status indications (Standby, Maintenance, Trouble, and Alarm).

* Includes detector. A sampling tube will need to be purchased separately.

Note: SS-PROBE-D4120W is an indent item, lead times may apply.

TECHNICAL SPECIFICATIONS

Dimensions	Rectangular:	370mm L x 127mm W x 66mm D
	Square:	197mm L x 229mm W x 64mm D
Operating temperature range	D4120: -20°C to 70°C	
Operating humidity range	0% to 95% relative humidity non-condensing	
Air duct velocity	0.5 to 20.32m/s	
Weight	1.14kg	
Environmental rating	IP66 (D4120W only)	

ELECTRICAL RATINGS

Power supply voltage	20-29Vdc	24VAC 50-60Hz	120VAC 50-60Hz
Input capacitance	270µF max.	270µF max.	N/A
Reset voltage	3.0Vdc min.	2.0VAC min.	10VAC min.
Reset time (with RTS151)	0.03 to 0.3 sec.	0.03 to 0.3 sec.	0.03 to 0.3 sec.
Reset time (by power down)	0.6 sec. max.	0.6 sec. max.	0.6 sec. max.
Power up time	35 sec. max.	35 sec. max.	35 sec. max.
Alarm response time	15 sec.	15 sec.	15 sec.
Sensitivity test	See detector label	See detector label	See detector label
Current requirements (Using no accessories)			
Max. standby current	21mA @ 24Vdc	65mA RMS@24VAC 60Hz	20mA RMS@120VAC 60Hz
Max. alarm current	65mA @ 24Vdc	135mA RMS@24VAC 60Hz	35mA RMS@120VAC 60Hz

CONTACT RATINGS

Alarm initiation contacts (SPST)	21mA @ 24Vdc (resistive)
Alarm auxiliary contacts (DPDT)	65mA @ 24Vdc (resistive); 10A @ 250VAC (resistive)
Note: Alarm auxiliary contacts shall not be connected to initiating circuits of control panels. Use the alarm initiation contact for this purpose.	
Supervisory contacts (SPDT)	0.03 to 0.3 sec.

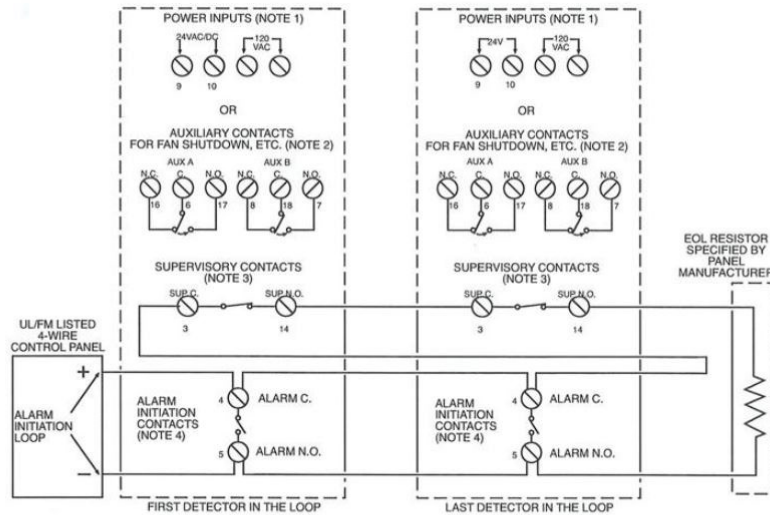
INSTALLATION

The SS-PROBE-D4120 sampling tube may be installed from the front or back of the detector. The tube locks securely into place and can be removed by releasing the front or rear locking tab (front locking tab shown below right).



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CONNECTION DIAGRAM



NOTE 1: 24V Power Inputs accept a non-polarized 24VDC or 24VAC 50-60Hz. 120VAC Power Inputs accept only 120VAC 50-60Hz. Connect power source to appropriate terminals of each detector. See specifications for additional power supply information.

NOTE 2: Auxiliary contacts shown in standby position. Contacts switch during alarm as indicated by arrows. Auxiliary contacts are not to be used for connection to the control panel. See specifications for contact ratings.

*Please refer to the corresponding installation manual for accessory wiring diagrams.

NOTE 3: Supervisory contacts shown in standby position. Open contacts indicate a trouble condition to the panel. See specifications for contact ratings.

NOTE 4: Alarm Initiation contacts shown in standby position. Closed contacts indicate an alarm condition to the panel. See specifications for contact ratings.

ACCESSORIES (TO BE ORDERED SEPARATELY)

SS-DST3	Duct detector sampling tube to suit duct 0.5m to 1.2m
SS-DST5	Duct detector sampling tube to suit duct 1.2m to 2.4m
SS-DST10	Duct detector sampling tube to suit duct 2.4m to 3.7m

APPROVALS

✓ ActivFire certified - Listing No. afp-2424