InnovairFlex D4120 Conventional Duct Smoke Detector



Conventional Initiating Devices

General

The Notifier InnovairFlex **D4120** and **D4120W** multi-voltage 4-wire photoelectric duct smoke detectors features a pivoting housing that fits various applications: both square and rectangular footprints and mounts to round or rectangular duct work.

The multi-voltage 4-wire design allows the D4120 and D4120W duct detectors to be used as a 4-wire device on a conventional fire detection system or as a stand-alone part of a HVAC system.

These units sense 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 InnovairFlex 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 InnovairFlex detectors can be interconnected. When unit senses one 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). The InnovairFlex duct smoke detector can be



D4120



D4120W

customized to meet local codes and specifications without additional wiring. The new InnovairFlex product line is compatible with all previous Innovair models, including remote test accessories.

Features

- Photoelectric, integrated low-flow technology
- Air velocity rating from 0.5 m/s to 20.32 m/s
- Versatile mounting options: square or rectangular configuration
- Able to be installed as a stand-alone detector
- Replaceable sensor head
- Patented sampling tube installs from front or back of the detector with no tools required
- Cover tamper signal
- Increased wiring space with a newly added 20mm conduit knockout
- Multiple input voltages

Approvals

CSIRO ActivFire listed to AS1603.13 - 1998

Specifications

Dimensions:	Rectangular Square	37cmL x 12.7cm 19.7cmL x22.9c	nW x 6.6cmD :mW x 6.35cmD	
Operating Temperature Range:		-20°C to 70°C		
Operating Humidity Range:		0% to 95% ralative humidity non-condensing		
Environmental Rating:		IP66 D4120W Only		
Power supply voltage:		20 - 29VDC	24VAC 50 - 60 Hz	120VAC 50 - 60 Hz
Input capacitance:		270 µF max.	270 µF max.	N/A
Reset voltage:		3.0 VDC min.	2.0 VAC min.	10 VAC min.
Reset time: (with RTS451)		.03 to 0.3 sec.	.03 to 0.3 sec.	.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.
Current Requirements: (Using No Accessories)				
Max. standby current:		21 mA @ 24VDC; 65 mA RMS @ 24VAC 60Hz; 20 mA RMS @ 120VAC 60Hz		
Max. alarm current:		65 mA @ 24VDC; 135 mA RMS @ 24VAC 60Hz 35 mA RMS @ 120VAC 60Hz		
Contact Ratings: Alarm initiation contacts: (SPST)		21mA @ 24VDC (resistive)		
Alarm auxillary contacts: (DPDT) 6		65mA @ 24VDC (resistive); 10A @ 250 VAC (resistive) ½ HP @ 240 VAC; ¼ HP @ 120 VAC		

Note: Alarm auxiliary contacts shall not be connected to initiating circuits of control panels. Use the alarm initiation contact for this purpose.

Product Line Information



DST1.5 - Metal sampling tube for duct widths up to 0.3m to 0.6m
DST3 - Metal sampling tube for duct widths up to 0.6m to 1.2m
DST5 - Metal sampling tube for duct widths up to 1.2m to 2.4m
DST10 - Metal sampling tube for duct widths up to 2.4m to 3.7m
ETX - Metal exhaust tube for duct widths up to 0.3m

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