ModuLaser-AirSense

AirSense Stratos ModuLaser High Sensitivity Smoke Detector

Description

ModuLaser is a scalable aspirating smoke detection solution that makes installation easier, maintenance quicker, and takes applications further than traditional air sampling detectors. Two basic module types comprise the ModuLaser solution: a display module, and up to eight detector modules. Each detector module can accommodate up to 100 meters of pipe. Control modules and detector modules communicate by RS-485 interconnections. Display modules are available in three configurations: keypad with TFT display; LED display only; and, TFT display plus keypad with command controls.

The patented ModuLaser design makes it possible for a single ModuLaser display module to serve as much as 800 meters of active sampling pipe among as many as eight discrete zones. This highly efficient layout also means the protected area can be served by shorter pipe runs, which makes response time faster when compared with traditional pipe configurations. But ModuLaser isn't just about efficient system design. It's also about easy connectivity, superb usability, and technology that now makes air aspirating detection a practical solution for nearly every application.

Thanks to advanced features that make it virtually impervious to dust and dirt, ModuLaser is ideal for use in hostile environments that would disable other kinds of smoke detectors. Forward scattering optical detection adds early warning capability without the risk of nuisance alarms normally associated with high sensitivity smoke detection, while exclusive environmental compensation technology adds a high degree of reliability to an already solid detection solution.

Applications

ModuLaser is ideal anywhere active air sampling provides a more effective solution than beam detection or point detection, which rely on convection currents in order for air samples to reach the smoke sensor. Unlike traditional point detection, ModuLaser sampling points do not require electrical devices, power, wiring, or junction boxes. In fact, servicing and testing need only be carried out at the display and detector modules, and at the sampling point furthest from the detector module. In addition, ModuLaser modules can be installed so they remain within reach, regardless of how inaccessible the sampling points are. This permits maintenance to be carried out and electrical connections to be made in a convenient location away from the protected space. Because aspirated air sampling actively draws air into the detector instead of relying on convection currents, it tends to provide a quicker reaction to incipient (developing) indicators of combustion. This makes it particularly well-suited to areas where the air is highly filtered for contaminants.

Standard Features

- Patented Modular Design
  Separate centrally-controllable detector modules allow efficient piping and discrete zones with no overlap.
- Zoned aspirating smoke detection
  Individual detector modules provide detection for individual areas or zones, specific zone alarm information can be transmitted to the main fire alarm panel via a common APIC address card in the display module or through dedicated alarm relays within each detector module.
- Versatile connectivity
  USB and IP interfaces break through connectivity barriers to bring remote access and easy data transfer to hard-to-reach aspirated detection applications.
- Simplified installation
  Ingenious docking station design allows detectors to be easily connected together as a group. Sensitive electronics are easily removed to ensure they will not be damaged during first fix installation. Aspirating pipework and cable entries can easily be made into either the top or the bottom of the unit.Intuitive user interface.
- Intuitive user interface
  Bright easy-to-see color TFT screen and universal navigation and control buttons take the guesswork out of programming and diagnostics.
- Easy pipe connection
  The patented quick fit pipe adaptor system locks down securely, yet leaves plenty of room for easy pipe connection and removal.

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Specifications

Supply	
Voltage	18 to 30 Vdc
Current Display Module (Normal and CM)	232 mA
Current Display Module (Minimum)	204 mA
Current Detector Module	236 mA at fan speed 1
	340 mA at fan speed 6 (default speed)
	815 mA at fan speed 16
Environmental	
Operating temperature	-20ºC to +60ºC (EN54-20)
Relative humidity	0 to 95% RH (non condensing)
IP Rating Display Module	IP30
IP Rating Detector Module	IP30 (IP 50 with exhaust fitted)
Mechanical	
Size (each module)	110mm (W) x 300mm (H) x 133mm (D)
Weight display module	1.18Kg
Weight detector module	1.57Kg
Colour	Cream
Cable entries (per module)	2 x M20 / 1/2" at the top
	2 x M20 / 1/2" at the bottom
	2 at the rear
Detector module orientation	Vertical (0 deg or 180 deg) or horizontal
Detection	
Detection principle	Laser light scattering mass detection and particle evaluation
Particle sensitivity range	0.003µ to 10µ
Measurement range (% Obs/m)	0.0015% to 25%
Alarm levels	4 (Aux, Pre-alarm, Alarm and Alarm 2)
Sampling pipework	
Inlets	1 per detector module
Lenght	100m per detector module
Diameter	27mm or 25mm OD
Holes	up to 50 holes per detector module
Exhaust	1 (optional) per detector module
Filter	
Internal filter in each detector module	Monitored with fault warning when filter is 80% blocked
Inputs	
Per module	2 - Programmable
Supervision	Optional
Supervision rating	15K ohm
Outputs	
Per module	3 - Programmable
Rating	2A @ 30V
User interface	
Indicators	LED (display and detector modules)
	LCD (Normal and CM display)
Navigation	Keypad
Connectivity	
Display module	IP and USB
	4 Email accounts
	APIC support
	SenseNET networking
	BACnet and Modbus (CM display only)
Event log	
Display module	20 000 events
Detector module	20 000 events
Chart recorder	
Sampling period	Adjustable between 1s and 60 s
Capacity	1 months @ 1s / Up to 5 years @ 60 s
Values recorded	Detector value, 4 alarm level values, flow value and temperature (all simultaneously)

Ordering Information

Part No.	Description
9-30780	ModuLaser - Minimum Display Module
9-30781	ModuLaser - Standard Display Module
9-30782	ModuLaser - Command Module Display
9-30783-1	ModuLaser - Advanced Detector Module

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