

FHSD8330-EN

ModuLaser, detector module

General

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 a detector module. Each detector module can accommodate up to 250 meters combined sampling pipe. Display modules and detector modules communicate by RS-485 interconnections.

Display modules are available in three configurations: Standard with TFT color display, status LED's and navigation buttons, Minimum with only status LED's, and Command which is similar to the Standard but with the added functionality to control various modules over SenseNET. The Minimum and Standard Display Modules can each support up to 8 detector modules, while the Command Display Module can support up to 127 modules across the SenseNET network.

Detector module

The Detector Module is a fully self-contained unit, which aspirate the sampled air from the protected area, analyze the air and based on ClassiFire determine if a pre-alarm or alarm should be raise, if smoke particles would be present in the sampled air. If an alarm condition or fault condition would occur, then the unit will activate the corresponding local relay output, subjected to the programming of the relays. Simultaneously the alarm or fault condition would also be reported to the Display Module to which the Detector Module is connected.

Due to the modular nature of the ModuLaser, maintenance (for example routine filter replacement) can be done on a module per module bases, rather than a complete system. This in turn reduces the risk of the area which is unprotected during the maintenance period, as only one sampling pipe (protected zone) would be affected at a time.

Perfect solution

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.

Dettagli

- 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
- 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: bright easy-to-see color TFT display and universal navigation and control buttons take the guesswork out of programming and diagnostics
- Easy pipe connection: the quick fit pipe adaptor system locks down securely, yet leaves plenty of room for easy pipe connection and removal
- Quick location of smoke: each detector module is self-contained, which means no delays in determining in which zone (sampling pipe) smoke is present

FHSD8330-EN

ModuLaser, detector module

Specifiche tecniche

Generale

Indicazione stato	LED's
User interface	TFT and navigation buttons on Normal and Command Display Modules
Livelli di allarme	4 (Aux, Pre-alarm, Alarm and Alarm 2)
Registro eventi	20 000 events per module
Supporto RS485	Yes (SenseNET and SenseNET+)
Connettività	USB (x2), IP and APIC on Display Module

Elettrico

Tensione di esercizio	18 to 30 VDC
Consumo attuale	Display Module (at 24 VDC): 204 mA - Minimum Display Module 232 mA - Standard Display Module 232 mA - Command Display Module Detector Module (at 24 VDC): 260 mA - fan speed 1 380 mA - fan speed 6 (default speed) 940 mA - fan speed 16

Rivelazione

Principio di rilevamento	Laser light scattering mass detection and particle evaluation
Sensibilità	0.002 %obs/m to 25 %obs/m (0.0006 %obs/ft to 7.62 %obs/ft)
Area di copertura	Up to 3000m2 (subjected to local approvals and installation standards)
Intervallo di sensibilità delle particelle	0.003 to 10 microns

Tubo di campionamento

Lunghezza	Up to 250 m (820 ft.) combined per detector module
Quantità di fori di campionamento	Up to 20 - Class A per detector module Up to 40 - Class B per detector module Up to 50 - Class C per detector module
Dimensioni ingresso	27 or 25 mm (1.06 or 0.98 in) outer diameter
Posizione di ingresso	Top or bottom
Misura scarico	27 or 25 mm (1.06 or 0.98 in) outer diameter
Posizione di scarico	Top or bottom

Ingresso

Quantità in entrata	2 per module
Tipo di input e intervallo	Supervised
Termine	15 KΩ 5% 1/4 W
Programmabile	Yes

Uscita

Tipo di uscita e intervallo	Voltage free (contact rating 2 A at 30 VDC / NO/NC/C)
Programmabile	Yes

Fisico

Dimensioni fisiche	110.5 x 133.5 x 300 mm (W x D x H) 4.35 x 5.25 x 11.8 in (W x D x H)
Peso netto	Display module: 1.18 kg (2.6 lb.) Detector module: 1.57 Kg (3.46 lb.)
Colore	Grey-white (RAL 9002)
Tipo di montaggio	Montaggio a superficie
Cavo di entrata	2 at the bottom, 2 at the rear, 2 at the top on Detector Module, and 3 at the top on the Display Module

Ambientale

Temperatura operativa	Equipment: -10 to +60°C (14 to +140°F) Sampled air: -20 to +60 °C (-4 to +140 °F)
Umidità relativa	0 to 95% noncondensing
Ambiente	Interno
IP rating	IP40

Regolatorio

Conformità	REACH, RoHS
Certificazioni	BOSEC, CPR, EN54-20

Physical

Cable entry size	20 mm (0.5 in) - top and bottom
Detector module orientation	Vertical (0° or 180°)

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)

Sampling pipe

Inlet quantity	1 per detector module
----------------	-----------------------