

# FHSD8320 LaserSense ModuLaser, Command display 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 module, while the Command Display Module can support up to 127 modules across the SenetNET network.

#### Command display module

The Command Display Module features a user interface which consist of a TFT color display, navigation buttons and status LED's. Configuration of the Command Display Module (and associated detectors across the SenseNET network) can be done via the user interface, or via a computer using Remote software. The TFT color display support simple operations like changing configuration options via a menu driven structure, but also advanced features like viewing the chart recording in graphical format.

The Command Display Module support up to 127 modules across the SenetNET network. The 127 modules can be any combination of ModuLaser modules as well as Micra's and HSSD2's. The use of the Command Display Module creates an easy to use central point from where all modules/detector on the network can be accessed, and all alarms and faults are reported.

#### **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.



#### Details

- 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.

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### **Technical specifications**

Status indication	LED's
User interface	TFT and navigation buttons on Normal and
	Command Display Modules
Alarm levels	4 (Aux, Pre-alarm, Alarm and Alarm 2)
Event log	20 000 events per module
RS485 support	Yes (SenseNET and SeneseNET+)
Connectivity	USB (x2) and APIC on Display Module
Electrical	
Operating voltage	18 to 30 VDC
Current consumption	Display Module:
	204 mA - Minimum Display Module
	232 mA - Standard Display Module
	232 mA - Command Display Module
	Detector Module:
	260 mA - fan speed 1
	380 mA - fan speed 6 (default speed)
	940 mA - fan speed 16
Detection	
Detection principle	Laser light scattering mass detection and
	particle evaluation
Sampling pipe	
Length	Up to 250 m (820 ft.) combined per detector module
Quantity sampling holes	
Quantity sampling holes	Up to 20 - Class A per detector module
Quantity sampling holes	Up to 40 - Class B per detector module
	Up to 40 - Class B per detector module Up to 50 - Class C per detector module
Inlet size	Up to 40 - Class B per detector module Up to 50 - Class C per detector module 27 or 25 mm (1.06 or 0.98 in) outer diameter
Inlet size Inlet location	Up to 40 - Class B per detector module Up to 50 - Class C per detector module 27 or 25 mm (1.06 or 0.98 in) outer diameter Top or bottom
Inlet size Inlet location Exhaust size	Up to 40 - Class B per detector module Up to 50 - Class C per detector module 27 or 25 mm (1.06 or 0.98 in) outer diameter Top or bottom 27 or 25 mm (1.06 or 0.98 in) outer diameter
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Inlet size Inlet location Exhaust size Exhaust location Inlet quantity Input quantity Input quantity Input type and rating Termination	Up to 40 - Class B per detector module Up to 50 - Class C per detector module 27 or 25 mm (1.06 or 0.98 in) outer diameter Top or bottom 27 or 25 mm (1.06 or 0.98 in) outer diameter Top or bottom 1 per detector module 2 per module Supervised 15 KΩ 5% 1/4 W
Inlet size Inlet location Exhaust size Exhaust location Inlet quantity Input quantity Input quantity Input type and rating Termination Programmable	Up to 40 - Class B per detector module Up to 50 - Class C per detector module 27 or 25 mm (1.06 or 0.98 in) outer diameter Top or bottom 27 or 25 mm (1.06 or 0.98 in) outer diameter Top or bottom 1 per detector module 2 per module 2 per module 5 μpervised 15 KΩ 5% 1/4 W
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Inlet size Inlet location Exhaust size Exhaust location Inlet quantity Input quantity Input type and rating Termination Programmable Output Output quantity	Up to 40 - Class B per detector module Up to 50 - Class C per detector module 27 or 25 mm (1.06 or 0.98 in) outer diamete Top or bottom 27 or 25 mm (1.06 or 0.98 in) outer diamete Top or bottom 1 per detector module 2 per module 2 per module Supervised 15 KΩ 5% 1/4 W Yes 3 per module Voltage free (contact rating 2 A at 30 VDC /

#### Physical

Physical dimensions	WxDxH
	110.5 x 133.5 x 300 mm
	(4.35 x 5.25 x 11.8 in)
Net weight	Display Module:
	1.18 Kg (2.6 lb.)
	Detector Module:
	1.57 Kg (3.46 lb.)
Colour	Cream
Mounting type	Surface mount
Cable entries	2 at the bottom, 2 at the rear, 2 at the top on
	Detector Module, and 3 at the top on the Displa
	Module
Environmental	
Operating temperature	Equipment:
	-20 to +60 °C (-4 to +140 °F)
	Sampled air:
	-20 to +60 °C (-4 to +140 °F)
Relative humidity	0 to 95% noncondensing
Environment	Indoor
IP rating	IP40
Regulatory	
Compliancy	REACH, RoHS
Certification	BOSEC, CPR, EN54-20, LPCB, VdS
Environmental	RoHS, REACH
Mechanical	
Cable entry size	20 mm (0.5 in) - top and bottom
Detector module	Vertical (0 deg or 180 deg)
orientation	
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)



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