

FLD-MXM

Multiplexed Monitoring Module

FLD-MXM is an intrinsically safe high-performance multiplexed monitoring module designed long line applications. FLD-MXM was built monitoring large arrays of leak detecting cables for rapid response to refined products, crude oils, or organic solvents. The device is engineered for outdoor installation in challenging hazardous and environmental conditions. The measurement frontend is designed for interfacing with reusable, fully passive hydrocarbon sensor cables and sensing probes manufactured by Naftosense.



Each individual FLD-MXM multiplexed monitoring module can support up to 4 individual sensor sections not exceeding 82 ft (25 m). Advanced measurement techniques and data treatment algorithms are used to provide intelligent thresholding for eliminating the nuisance alarm due to the presence of motor/lube oils, greases, residues of old leaks, etc.

This monitoring module is controlled through the Naftosense ERBUS proprietary field bus allowing reliable communication over distances exceeding 2 miles (3.2 km). ERBUS also provides low voltage power supply to each FLD-MXM from a single multiplexed lead wire attached to a FLD-TSP7 or FLD-SMP-MB.

FLD-MXM is approved for installation in classified locations according to FM, Atex, IECEx and other North American approvals. Designed only to be used with FLD-TSP7 and FLD-SMP-MB controllers.

Features and Benefits

- Detects reliably viscous hydrocarbons at very low temperatures
- True multi-leak capability
- Real-time transmission of sensor contamination
- Intelligent thresholding
- Low power consumption for reliable remote monitoring over long distances
- Very wide operating temperatures range
- Able to detect the vapors diffused in the soil after spill from underground pipes
- 10-year warranty

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Typical Applications

- Leak detection in Oil & Gas facilities
- Detection of leaking fuel from airport hydrant systems, military, custody transfer generators and plumbing in demanding environments installations in harsh outdoor, demanding environmental conditions
- Leak detection in refineries, tank farms, mainline pipe sections, or repair sites
- Leak detection in commercial buildings, downstream and fuel retail facilities

Agency Approvals

- In the US: Intrinsically safe - Class I, Division 1, Groups A, B, C and D, Class I, Zone 0, AEx ia IIC
- Atex: Intrinsically safe – II 1 G, Ex ia IIC Gb T4
- IECEx: Intrinsically safe – Ex ia IIC Gb T4
- Tested by FM Approvals for compliance as per FM Class 3610

Technical Information - Acquisition Module FLD-MXM

Typical Detection Time at 68°F (20°C) with FLD-HSC Sensor Cable

Unleaded Gasoline	1 minute 30 seconds
Diesel/Jet Fuel	2 to 3 minutes
Light Crude Oils	6 to 8 minutes
Heavy Crude Oils	12 to 16 minutes
Motor/Hydraulic/Silicone Oils	16 to 19 minutes
Bunker C Oil	45 to 55 minutes

Technical Data

Dimensions	5.709" x 2.592" x 1.575" (145 x 65.8 x 40 mm)
Weight	0.76 lb. (345 g)
Fire Rating	UL94-HB

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Technical Data	
Ingress Rating	IP67/NEMA4X - suitable for outdoor/direct burial
Operating Temperature Range	-40°F to 176°F (-40°C to 80°C)
Power Supply Voltage Range	12 - 20 VDC
Mounting	Wall-mounted with external mounting brackets
Power Consumption	20mA max.
Hazardous Locations Classification	IS/ I/ 1/ CD/ T4 ; I/ 0/ AEx/ ia IIB T4 ; Class I, Zone 0, Ex ia T4 Class I, Div. 1, Groups C,D; T4 II 1 G Ex ia IIB T4 Ga
Warranty	10 years

Warning! This is an agency-approved product. It shall be installed according to the corresponding hazardous location certificates. Any deviation from the conditions of use defined in the Control Drawing is strictly prohibited.

Product Codes	
FLD-MXM-4-xxx	Acquisition module for up to 4 sensors (monitoring by ERBUS proprietary bus)