

FLD-MXM-PS

ERBUS-compatible Acquisition Module with Intelligent Thresholding

The FLD-MXM-PS is an advanced acquisition module designed for reliable detection and location of unwanted presence of polar solvents such as alcohols, ethanol, acetone/MEK, etc. It can also be used to detect hydrocarbon liquids and their vapors. The measurement frontend is engineered for interfacing with passive sensing probes offered by Naftosense. Advanced measurement techniques and data treatment algorithms are used to provide quick detection in a wide temperature range. The status of the module is indicated by embedded LED's for instant identification of the sensor string in alarm. The module provides the leak alarm level allowing adjustable thresholding from the associated monitoring panel. The FLD-MXM-PS module has built-in specific algorithm for tracking the electrical conductivity between the detection cable sensor wires for very efficient reduction of the false positives due to condensation, conductive dust, dirt, etc. (intelligent thresholding).



This monitoring module is controlled through the Evteam ERBUS proprietary field bus allowing reliable communication over distances exceeding 3.2 km / 2 miles. ERBUS also provides low voltage power supply to each FLD-MXM from a single multiplexed lead wire attached to a suitable ERBUS-enabled monitoring device. The approved monitoring devices are depicted below.

FLD-MXM-PS is approved for installation in classified locations according to Atex, IECEx and the North American regulations.

Features and Benefits

- Detects very quickly leaks of polar solvents and hydrocarbons
- Very reliable communication with associated control module
- Provides leak alarm level
- Intelligent thresholding
- Low power consumption for reliable remote monitoring over long distances
- Wide operating temperatures range
- 10-year warranty

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Typical Applications

- Monitoring of tank farms storing alcohols and hydrocarbons
- Monitoring of chemical and petrochemical facilities in demanding environmental conditions
- Leak detection in laboratories and storage rooms of chemicals
- Monitoring of marine terminals and methanol storage infrastructures

Agency Approvals

- IECEx Zone 0
- ATEX Zone 0
- C1D1 listing

Technical Information

Typical Detection Time at Ambient Temperature

20%-100% vol. alcohol in water	2 to 2.5 minutes
Gasoline and other hydrocarbons	30 seconds to 10 minutes
Hydrocarbon vapors	3 to 4 minutes

Compatible Sensors

FLD-PSP-xx	Sensing probe for polar solvents and hydrocarbons for outdoor applications - storage tank farms, chemical and petrochemical facilities, etc.
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Technical Data

Dimensions	3.75" x 2.6" x 1.6" (95 x 65 x 40 mm)
Weight	0.76 lb (245 g)
Fire Rating	UL94-V0
Ingress Rating	IP67/NEMA4X - suitable for outdoor/direct burial
Operating Temperature Range	-40°F to 176°F (-40°C to 80°C)

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Technical Data	
Power Supply Voltage Range	10 - 20 VDC
Power Consumption	20mA max.
Mounting	Wall-mounted with external mounting brackets
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
Tested and Approved Sensors	FLD-PSP
Approved Monitoring Devices	FLD-SMP, FLD-ERBC, FLD-TSP7, FLD-TSP10
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-PS	Acquisition module for interfacing with Naftosense sensing probes for polar solvents and hydrocarbons (monitoring by ERBUS proprietary bus)