

FLD-TSP7

Control Panel

FLD-TSP7 is a high-performance 7-inch touchscreen controller designed for powering and interfacing with Naftosense brand of monitoring modules. The communication with these modules is based on Naftosense long-range ERBUS proprietary bus. The controller is offered in IP54/NEMA 3S water-resistant wall-mounted enclosure, to be installed in control rooms and other remote locations where dripping water might be potentially present.

The primary use of FLD-TSP7 is to monitor up to three zones with long detection strings for hydrocarbons, alcohols, solvents, or conductive liquids of up to 9800ft (3000 m) each. Each zone on the FLD-TSP7 is capable of powering and communicating with up to 25 Naftosense monitoring modules. The communication protocol permits robust and reliable operation even in case of partial failure of the circuit of monitoring modules. Each individual monitoring module can be connected to several independent sensors and provides true multi-leak capability.



FLD-TSP7 provides power and multiplexed communications through the Naftosense ERBUS proprietary bus resulting in a lean communication infrastructure. The FLD-TSP7 has a high-level interfacing to DCS/SCADA is implemented through the RS-485 serial output with Modbus RTU, or through dry contacts. With options for up to 9 SPDT relays, alarms, and communications are easy to configure with the FLD-TSP7.

The maximum distance covered with this wired layout (accumulated sensor and jumper cables) is more than 2.3 miles (3.2 km). The optional loopback wiring increases the system reliability in case of cable breaks and shorts. The intuitive password-protected user interface on the touch panel provides flexible configuration and adjustable alarm threshold

Features and Benefits

- Extremely long range of leak detection circuit monitoring
- Easy T-branching – no special devices/components needed
- Adjustable alarm threshold
- Very wide operating temperatures range
- Able to interface with sensor modules for various types of liquids as water, acids, bases, hydrocarbons, alcohols, ketones, etc.
- 10-year warranty

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Typical Applications

- Pipe sections in remote facilities
- Detection of viscous hydrocarbons in substations, pumping stations, etc.
- Detection of leaking fuel from airport hydrant systems, military, and custody transfer installations in harsh outdoor, demanding environmental conditions
- Leak detection in data centers and commercial buildings



Agency Approvals

Approved for use in:

- 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 FLD-TSP7 Naftosense Monitoring Panel

Compatible Acquisition Modules

Model	View	Description
FLD-MXM (all versions)		Long-range multiplexed Monitoring module for monitoring of up to 8 sensing cables or probes for detecting hydrocarbons in both indoor and outdoor environment. Maximum length of sensor string per acquisition module: 400 ft (120 m)
FLD-FBS (all versions)		Long-range monitoring module with flexible wiring options and programmable detection algorithms for monitoring of up to 8 sensors for detecting hydrocarbons in both indoor and outdoor environment. Maximum length of sensor string per acquisition module: 400 ft (120 m)

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Technical Data	
Display Size and Resolution	7 in TFT, 800 x 480
Dimensions	12" x 12" x 8" (300 x 300 x 200 mm)
Fire Rating	Non-flammable, UL508 approved
Ingress Rating	IP54/NEMA 3S – indoor use only
Operating Temperature Range	32°F to 122°F (0°C to +50°C)
Power Supply Input	100-240VAC or 24VDC
Maximum Length of Cable	Accumulated Length of Sensor and Leader Cable: 2 miles (3.2 km)
Power Consumption	18.5W maximum
Mounting	Wall-mounted
Warranty	10 years

Warning! FLD-TSP7 monitoring panel is housed in a UL508 approved enclosure and is provided with a cULus Listed display controller. It shall be installed by qualified personnel in accordance with the relevant local regulations for electrical safety.

Product Codes	
FLD-TSP7-1C	Single-channel monitoring panel for up to 25 Naftosense acquisition modules for detecting liquid leaks, with Modbus RTU/TCP and 3 SPDT relay outputs
FLD-TSP-2C	Dual-channel monitoring panel for up to 50 Naftosense acquisition modules for detecting liquid leaks, with Modbus RTU/TCP and 6 SPDT relay outputs

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Product Codes	
FLD-TSP-3C	Triple-channel monitoring panel for up to 75 Naftosense acquisition modules for detecting liquid leaks, with Modbus RTU/TCP and 9 SPDT relay outputs
FLD-TSP-4C	Quadruple-channel monitoring panel for up to 100 Naftosense acquisition modules for detecting liquid leaks, with Modbus RTU/TCP and 12 SPDT relay outputs