



PRODUCT FEATURES

- Sensing of organic liquid (hydrocarbons and solvents) or water within seconds of contact
- Vapor and gases are ignored
- Remote monitoring capability with an RS-232 interface and relays
- UL Listed with Class 1, Division 1, Group C & D sensor circuits optional
- NEMA 4X Enclosure
- Up to 64 probes and 16 programmable alarm relays available

LiquidWatch® monitoring units have been engineered to meet a broad range of customer needs. The system can be configured with up to 64 probes and 16 alarm relays. The modular design allows for meeting current needs while allowing for future expansion of the system.

LiquidWatch employs a 2 line, 20 character backlit LCD with a membrane keypad for operator interface. The probe circuits are supervised and provide alarms for probe active, short and break conditions. The system can be programmed for a probe acti-

vation to operate one of 16 optional relays for remote alarm indication or operation of a shut down procedure.

LiquidWatch monitoring units are equipped with normally energized 10A, 250 VAC, SPDT relays: 1 common alarm relay and up to 16 optional programmable relays (in modules of four). The alarm console can be located up to 10,000 feet (3000m) from the probes. The probe modules (8 probes per module) can be mounted remotely to reduce wiring costs.

The patented hydrocarbon probes for

LiquidWatch are solid-state design and respond in seconds after contact with organic liquids or water. Hydrocarbon fumes or vapors have no effect, thereby virtually eliminating false alarms.

The **LiquidWatch** monitoring unit can also monitor any switch (float switch, thermostat, high level switch, dry contact, etc.), using the optional probe adapter.



Model	Part	Description
LW64	8027570	LiquidWatch Monitoring Unit
LW64-IS	8027571	LiquidWatch Intrinsically Safe - UL Listed
RPM-8	8 027636	LiquidWatch Probe Module
ORM-4	8 027637	LiquidWatch Relay Module
PA-10	8027638	LiquidWatch Probe Adapter
PHL-LW	8027901	LiquidWatch Hydrocarbon Probe Assembly
PFS-LW	8027902	LiquidWatch Float Probe Assembly
PSTV-LW	8027903	LiquidWatch 2" Tank Well Float Probe Assembly
PWS-LW	8027904	LiquidWatch Water Probe Assembly
PHFW-LW	8027905	LiquidWatch Monitoring Well Probe Assembly
PHFW-MLW	8027907	LiquidWatch Monitoring Well Probe Assembly - Modified
PTHL-LW	8027906	LiquidWatch Tank Overfill Probe Assembly

SPECIFICATIONS

PART 1 • SYSTEM

1.1

The discreet point monitoring system (D.P.M.S.) shall consist of a monitoring unit, probe module, relay module and probes. The D.P.M.S. shall be capable of detecting liquids in contact with the sensor probe connected to the monitoring panel. It shall not detect vapors or gases.

1.2

When liquid is detected, an audible alarm shall sound and LCD readout of the probe activation shall be visible on the front display. The D.P.M.S. system shall alarm within one (1) minute or less after contact with liquid

1.3

The system supplier shall have at least ten (10) year's experience in the manufacturing of leak detection systems.

PART 2 • COMPONENTS

2.1

The standard sensors shall be probes. The probes shall be less than 3/4" in diameter and less the 2" long for use with organic or conductive (water based) liquids. The probe shall be of solid state construction and corrosion resistant housing with no moving parts. The probes shall reset after liquids are removed from the probe. Lead wires shall consist of 24 AWG shielded conductor with color-coded insulation.

2.2

The use of other probes such as float switches, ground water monitoring or other devices shall use a dry contact to indicate an alarm condition. Float switch probes shall be resettable after fluids are removed and shall use material of construction suitable for liquids to be sensed for corrosion resistance.

2.3

The monitoring panel shall be modular in design and accept up to sixty-four (64) probes and sixteen (16) programmable alarm relays.

The LCD shall provide indication of the system's status. When a probe alarms, the type of alarm (active, short or break) and the probe number shall be indicated. Using the membrane keypad the operator shall be able to program the system and review the history archive. An RS-232 interface port shall be available for use in remote monitoring of the unit using ASCII commands. The enclosure shall be NEMA 4X.

PART 3 • SAFETY

3.1

The unit must be UL Listed and provide connections for intrinsically safe sensor circuits for use in Class 1, Division 1, Groups C&D hazardous locations (where required).

DESCRIPTION:

- Unit Dimensions: 11.31" H x 9.31" W x 5.43" D
(287mm x 236mm x 138m)
- Power: 120/240 VAC 50/60 Hz, 8VA
- Unit Weight: 7 lbs. (3.2 kg)
- Unit Operating Temperature: 0°F to 120°F
(-18°C to 50°C)
- Probe Operating Temperature: 0° F to 100° F
(-18°C to 40°C)

ALARM OUTPUTS:

- AUDIBLE ALARM
- RED LED OPTICAL ALARM
- ACTIVATION OF 10A OUTPUT RELAYS

TYPICAL PROBE RESETABILITY TABLE

Liquid	Reset
1, 1, 1, Trichlorethane	YES
Acetone	YES
Methyl Ethyl Ketone	YES
Xylene (mixed)	YES
Naphtha	YES
Gasoline	YES
Ethyl Acetate	YES
Isopropanol	YES
Kerosene	NO
Diesel Fuel	NO
Jet Fuel A, JP4, JP5	NO
Crude Oil Lt., Med., Hvy.	NO
New Motor Oil	NO

The LiquidWatch hydrocarbon probe responds to all liquids listed above in less than one (1) minute.

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