

DM-2 Diaphragm Monitor System

The Yamada® DM-2 Diaphragm Monitoring System is designed to protect your Yamada Pump and the environment against damage from corrosive, aggressive, or other harmful pumped fluids. Powered by standard line current, the DM-2 automatically disrupts air supply pressure to the pump and / or activates an indicator the moment a diaphragm leak is detected.

Advantages

- **Detects Diaphragm Leaks Instantly:** Sensitive moisture probes respond quickly to liquid in the pump air chamber keeping leaks from causing pump damage or product contamination.
- **Automatic Shutdown or Alarm Capability:** The DM-2 can be connected to a solenoid valve, alarm, or control system to automatically stop the pump and / or alert the operator the moment the leak is detected.
- **Compact and Simple:** Moisture probes are easily located at the bottom of each pump air chamber. Lights displaying LT or RT, indicate a diaphragm breach. Remote control enclosure is standard in NEMA 4X (watertight) and measures just 2-½" W x 3-¾" L x 2-¼" D (dimensional drawing on back). The enclosure can be easily mounted to any flat surface.
- **Sensitivity and Inspection:** The DM-2 is adjustable to provide the required sensitivity for a particular fluid pumped. The system can easily be inspected via simple probe removal from the pump air chamber and immersing in the fluid pumped.



Applications

- When positive head pressure is on the pump fluid inlet
- When pumping hazardous or toxic fluids for working & environmental safety
- Expensive fluids



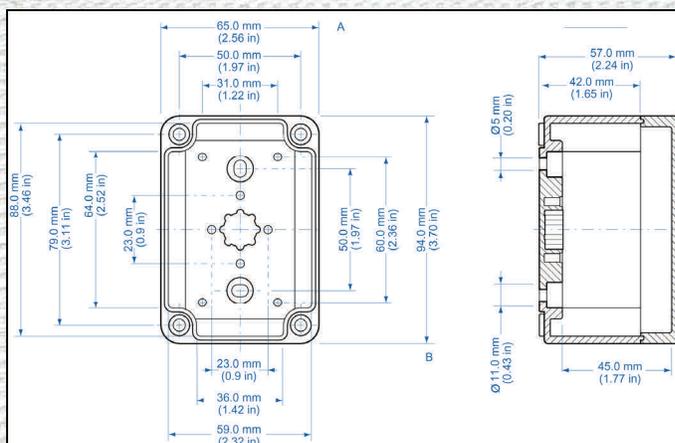
Principles of Operation

The DM-2 Diaphragm Monitoring System senses liquid entering the non-wetted portion of the Yamada Pump via a leaking diaphragm. A sensitive electronic moisture sensor, which operates on the principal of fluid conductance, is installed at the lowest point of each air chamber. In the event of a diaphragm rupture, liquid enters the airside of the pump, collects at the bottom of the air chamber where the probe is located, is detected by the sensor and a signal is transmitted to a remote master control. The controller, in turn, activates any connected alarm system, solenoid valve, or electronic device. The DM-2 Diaphragm Monitoring System can be factory installed on any Yamada industrial or FDA NDP-20, 25, 50, 50 & 80, or DP-10 Series pump. The system operates on either DC (with transformer) or AC power.

NOTE: DM-2 is to be utilized when pumping electrically conductive fluids ONLY.

Performance Specifications

Materials of Construction	ABS Plastic
Enclosure	NEMA 4X/IP66
Mounting	Flat Surface, #10 Fasteners
Weight	8.1 oz.
Power Supply (Standard Unit)	1 Phase, 50/60 hertz, AC or DC, 12 or 24 volt
Optional Transformer	1 Phase, 50/60 hertz, 120/12VAC
Operating Temperature Range	0°F to 125°F
Sensitivity Range	0-100,000Ω (0-5 Volt)
Cable Length (Probes)	Standard-2', Optional-up to 100'
Cable Power and Alarm (User to Supply)	4-Wire, 18 Gauge, Non-Shielded



R2	R1
Left	Right
Sensitivity Adjustment	
LT	RT
Diaphragm Failure	
Right Moisture Probe (Red)	RS
Left Moisture Probe	LS
Common (alarm or pump shutoff relay)	COM
Normally Closed	NC
Normally Open	NO
12/24 VAC/DC	V+
Ground (green)	G

Label:

