

# DM-2 DIAPHRAGM MONITOR SYSTEM

Instructions | Read carefully before handling.

## INSTALLATION INSTRUCTIONS

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



DM-2 Diaphragm Monitor

### POWER

The DM-2 unit requires 5 Volts regulated DC to operate. It is supplied with a pre-connected adapter which allows the unit to be powered by 12-24 Volts CD/AC with no attention needed to polarity.

### MOISTURE PROBES

Terminals **WHT/GRY** and **YEL/GRY** are used for the moisture probes. Terminals **WHT/GRY** are used when a single moisture probe (2 wire)\* is used with a pump with a plastic air section.

\*Includes NDP-5/15, NDP-20(PP), NDP-25(PP) and NDP-50(PP).



Terminal Sensors

### TRUTH TABLE

Power	Leak	N.O. Contacts	N.C. Contacts
OFF	NO	OPEN	CLOSED
OFF	YES	OPEN	CLOSED
ON	NO	CLOSED	OPEN
ON	YES	OPEN	CLOSED

### RELAY

This unit is equipped with a SPDT (single pole double throw) relay. To provide "failsafe" against un-powering an alarming unit, the relay is engineered when the unit is powered and switches when an alarm is detected or the unit is un-powered. Be sure to understand the status of the contacts in the various conditions from the "Truth Table" before wiring up the relay.

The relay is rated for 2 AMPS @ 125 VAC and will switch according to the above "Truth Table". The unit alarm threshold is approximately 75 microSeimens, which is less conductive than tap water. To avoid false alarms, the unit rechecks an alarm 10 times in the first 2 seconds to confirm its validity.

### INDICATORS

When power is applied to the DM-2, it will go through a 2 second diagnostic testing the relay, LED and audible alert. The LED will then be green.

When a sensor is contacted by conductive liquid, the LED will turn red and blink in unison with the audible alert; once for the **WHT/GRY** pair and twice for the **YEL/GRY** pair.



LED

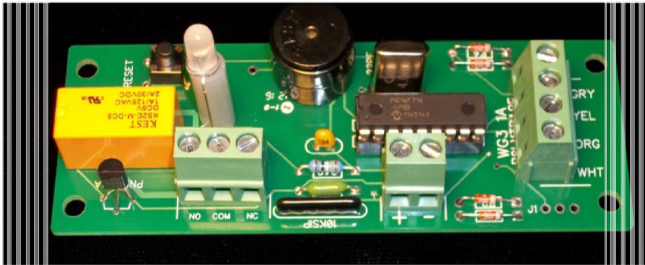
# DM-2 DIAPHRAGM MONITOR SYSTEM

Instructions | Read carefully before handling.

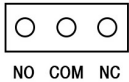
## INSTALLATION INSTRUCTIONS - continued

### DM-2 WIRING

Note: Wire Gauge (AWG) 18 thru 24 is acceptable.

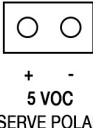


**RELAY**



Output Relay can be used for Solenoid or Alarm control.

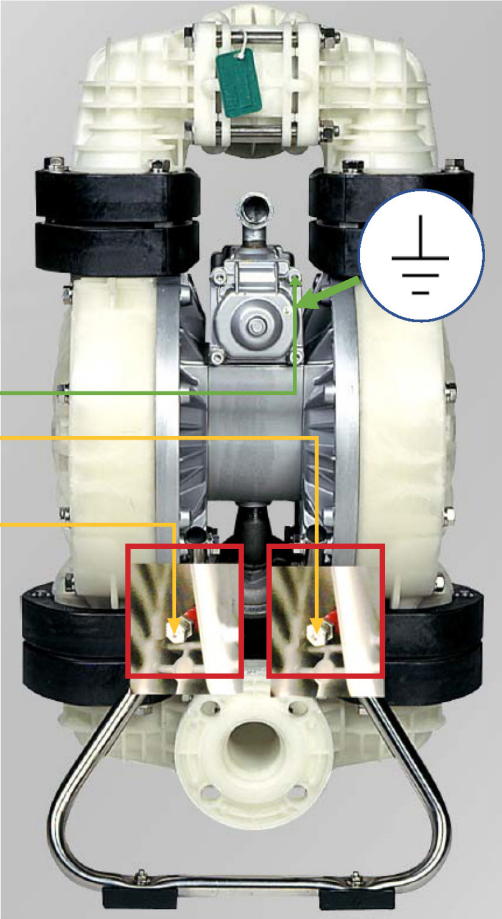
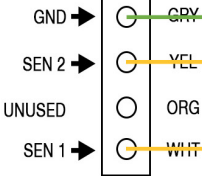
**POWER**



5VDC – Input Power, however, when the provided inline power transformer is used 12V to 24VDC can be used..



**SENSOR**



Example: NDP-50 Polypropylen Pump