

**THE CONCEPT:** To protect pump seals, impellers, motors (25-amp maximum motor draw), and your power supply from damage caused by dry running, we have introduced NOFLO™. The patent-pending process permits the connected pump to run indefinitely, as long as there is a supply of water and power, but safely shuts your pump off in 30-seconds in the event of loss of prime.

Models are also available with the same 30-second dry-tank shut-down mode, but that will limit the run time to a specific duration. Contact GROCO for details.

**INSTALLATION:**

**NOTE:** NOFLO™ does not sense reduced flow, but rather senses the presence of air in the plumbing, such as would be the case with a broken or leaking supply line or a dry supply tank. Choose a sensor location that will most reliably indicate this condition to the control module. (Refer to Sample Installation drawing.)

**NOTE:** The bronze fittings at either end of the sensor are not delicate, but the components within the white potting material are. When screwing fittings into the sensor always hold the bronze fitting into which you are making a connection with a pipe wrench or pliers to prevent it from turning (which may damage the internal components) while fittings are screwed into the sensor.

**SENSOR:** The sensor is comprised of several standard plumbing fittings, and it may be installed at either the pump inlet port or outlet port. In some instances you may choose to install the sensor away from the pump all-together. The threaded ends are interchangeable (there is no "IN" or "OUT").

Threaded fittings at both ends of the sensor may be used to suit the hose ID you are working with. Use TFE® thread tape on threaded connections; double-clamp hose connections.

**CONTROL MODULE:** The control module should be installed in a dry location near the pump to be protected. There are no user-serviceable parts inside the module.

**ELETRICAL CONNECTIONS:**

**POWER:** The control module has an internal relay with a maximum motor load of 25-amps. Refer to the wire size selection chart enclosed to make power connections to the control terminals marked DC (+) and DC (-).

**MOTOR:** Make connections between the pump motor and control terminals marked motor (+) and motor (-).

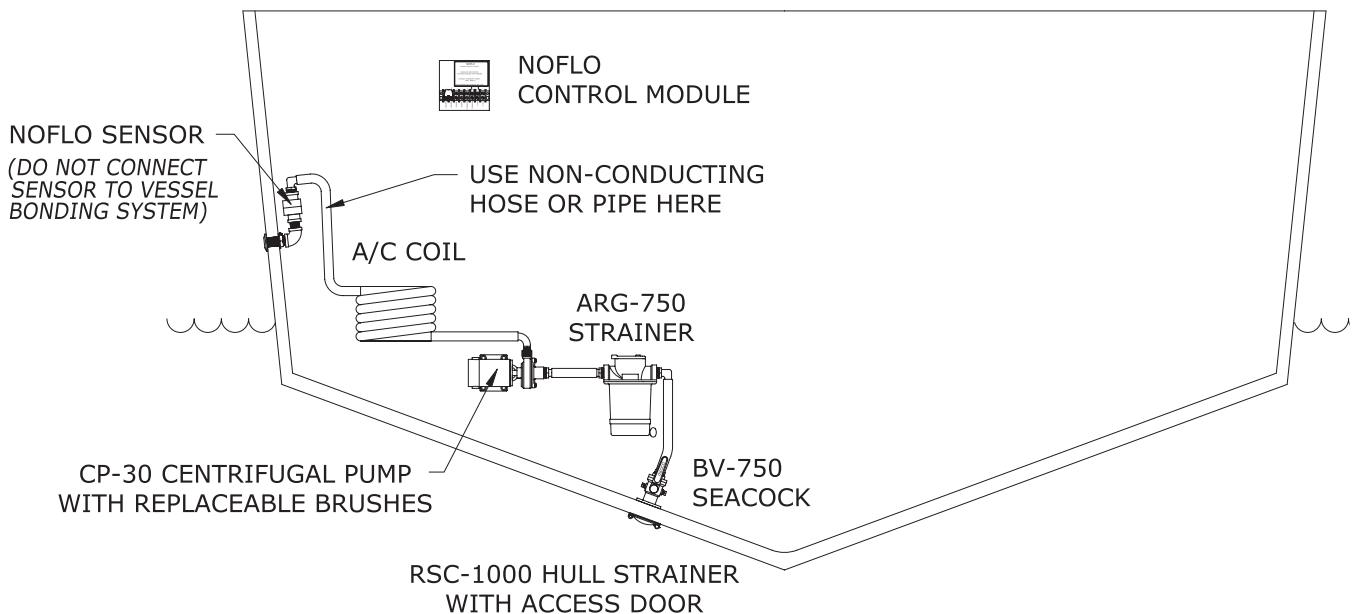
**SENSOR:** The sensor includes 10-feet of wire for connecting the sensor to the control module terminals marked NOFLO". These wires are interchangeable.



**SWITCH (OPTIONAL):** If a switch is used to control pump on-off operation it may be connected to the control terminals marked "switch". In this case the jumper must be removed. If a switch is not used, leave the jumper in place.

**OPERATION:** NOFLO™ will allow normal pump operation until the sensor detects a loss of prime for more than 30-seconds. The pump will not automatically re-start when prime has been re-established. To re-start the pump, after first identifying and correcting the cause of the loss of prime, shut off power at the breaker panel for 15-seconds and then turn the breaker back on. The pump will run normally.

NOFLO SAMPLE INSTALLATION FOR AIR CONDITIONING PUMPS



© 1999 GROSS MECHANICAL LABORATORIES, INC. ALL RIGHTS RESERVED.