



PUMP SHUT DOWN MOISTURE SENSOR

MODEL VFD-WS

P10230 (04-01-2023)



OWNER'S MANUAL

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SAFETY SYMBOLS

 This is the safety alert symbol. When you see this symbol on your pump or in this manual, look for one of the following signal words and be alert to the potential for personal injury:

⚠ DANGER warns about hazards that will cause serious personal injury, death or major property damage if ignored.

⚠ WARNING warns about hazards that can cause serious personal injury, death or major property damage if ignored.

⚠ CAUTION warns about hazards that will or can cause minor personal injury or property damage if ignored.

The word **NOTE** indicates special instructions that are important but not related to hazards.

CALIFORNIA PROPOSITION 65 WARNING

⚠ WARNING This product and related accessories contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

GENERAL SAFETY

⚠ WARNING DO NOT USE WITH FLAMMABLE OR EXPLOSIVE FLUIDS SUCH AS GASOLINE, FUEL OIL, ETC. DO NOT USE IN EXPLOSIVE ATMOSPHERES.

DISCONNECT ALL ELECTRICAL SERVICE BEFORE WORKING OR HANDLING THE MOISTURE SENSOR.

Before proceeding with the installation or operation of the moisture sensor read all instructions thoroughly as well as comply with all Federal, State and Local Codes, Regulations and Practices.

The moisture sensor must be installed by qualified personnel familiar with all applicable electrical and mechanical codes and mechanical codes. Refer to the National Electrical Code (NFPA 70). Failure to properly install and test this product can result in personal injury or equipment malfunction.

OPERATIONS & INSTALLATION

DESCRIPTION

The Pentek VFD-WS Pump Shut Down Moisture Sensor is designed to shut off your Pentek IntelliDrive if water is detected. When water touches the two detection points on the bottom of the Moisture Sensor, it sends a signal to the VFD to shut it off.

OPERATION

1. When the sensor is dry and the system has power, the green Ready indicator will be illuminated (Figure 1).



FIGURE 1

2. The red Alarm indicator light will illuminate if water is touching both detection points on the bottom of the Moisture Sensor (Figure 2).



FIGURE 2

3. The Moisture Sensor can be automatically reset by wiping of the sensors on the bottom of the unit.

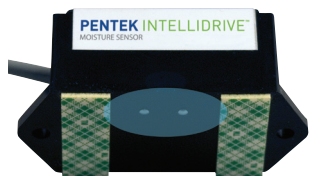


FIGURE 3

4. When the Moisture Sensor is dry, the green Ready indicator will illuminate.

INSTALLATION

1. Disconnect all power from the system.
2. Connect the Moisture Sensor to the VFD (Figure 4):
 - ◆ I1+ (left) = Green wire
 - ◆ I1- (right) = White wire
 - ◆ V+ (left) = Red wire
 - ◆ V- (right) = Black wire.

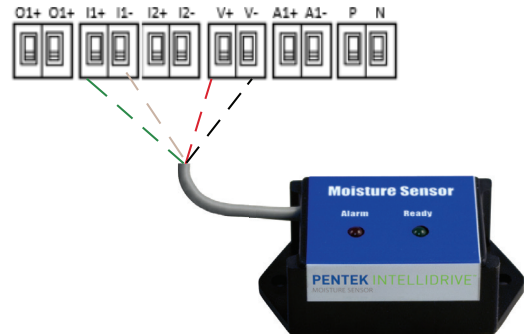


FIGURE 4

3. Program the VFD:
 - ◆ Push Password button.
 - ◆ Input 7777 and click Enter.
 - ◆ Push MAIN MENU button.
 - ◆ Push Down Arrow to I/O and click Enter.
 - ◆ For Digital Input 1, click Enter.
 - ◆ Push Down Arrow to External Fault and click Enter.
 - ◆ Push STATUS button to return to normal display.
4. Position Moisture Sensor where water is likely to appear.
5. Test the system:
 - ◆ When the PENTEK INTELLIDRIVE is running the pump, place the Moisture Sensor on a wet rag.
 - ◆ The sensor's red Alarm indicator should illuminate and the drive should fault out and stop the pump. Display will show EXTERNAL FAULT and will not restart.
 - ◆ After wiping off the sensor contacts the green Ready indicator light should illuminate.
 - ◆ Push the FAULT RESET button on the Intellidrive to reset the fault.
 - ◆ Push AUTO START to put the system back into service.

Limited Warranty

PENTAIR warrants to the original consumer purchaser ("Purchaser" or "You") of the products listed below, that they will be free from defects in material and workmanship for the Warranty Period shown below.

Product	Warranty Period
Water Systems Products – jet pumps, small centrifugal pumps, submersible pumps and related accessories	<i>whichever occurs first:</i> 12 months from date of original installation, 18 months from date of manufacture
PENTEK INTELLIDRIVE™	12 months from date of original installation, or 18 months from date of manufacture
Pro-Source™ Composite Tanks	5 years from date of original installation
Pro-Source™ Steel Pressure Tanks	5 years from date of original installation
Pro-Source™ Epoxy-Line Tanks	3 years from date of original installation
Sump/Sewage/Effluent Products	12 months from date of original installation, or 18 months from date of manufacture

Our warranty will not apply to any product that, in our sole judgment, has been subject to negligence, misapplication, improper installation, or improper maintenance. Without limiting the foregoing, operating a three phase motor with single phase power through a phase converter will void the warranty. Note also that three phase motors must be protected by three-leg, ambient compensated, extra-quick trip overload relays of the recommended size or the warranty is void.

Your only remedy, and PENTAIR's only duty, is that PENTAIR repair or replace defective products (at PENTAIR's choice). You must pay all labor and shipping charges associated with this warranty and must request warranty service through the installing dealer as soon as a problem is discovered. No request for service will be accepted if received after the Warranty Period has expired. This warranty is not transferable.

PENTAIR IS NOT LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, OR CONTINGENT DAMAGES WHATSOEVER.

THE FOREGOING LIMITED WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE FOREGOING LIMITED WARRANTIES SHALL NOT EXTEND BEYOND THE DURATION PROVIDED HEREIN.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to You. This warranty gives You specific legal rights and You may also have other rights which vary from state to state.

This Limited Warranty is effective June 1, 2011 and replaces all undated warranties and warranties dated before June 1, 2011.

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