xylem
Let's Solve Water

INSTRUCTION MANUAL
IM234R03

Moisture Sensor Relay

• Connections to Aquavar SOLO and SOLO^2 • Connections to S-Drive and SPD
• Connections to Aquavar AB2 (AquaBoost II) • Connections to e-SM Smart Motor
• Connections to Aquavar IPC • Connections to Hydrovar

INSTALLATION AND OPERATION MANUAL FOR 9K583, 9K584, AND 9K585

CentriPro
a xylem brand

SAFETY INSTRUCTIONS

TO AVOID SERIOUS OR FATAL PERSONAL INJURY OR MAJOR PROPERTY DAMAGE, READ AND FOLLOW ALL SAFETY INSTRUCTIONS IN MANUAL AND ON EQUIPMENT.

THIS MANUAL IS INTENDED TO ASSIST IN THE INSTALLATION AND OPERATION OF THIS UNIT AND MUST BE KEPT WITH THE UNIT.



This is a **SAFETY ALERT SYMBOL**. When you see this symbol on the pump, the controller or in the manual, look for one of the following signal words and be alert to the potential for personal injury or property damage.

⚠ DANGER Warns of hazards that **WILL** cause serious personal injury, death or major property damage.

⚠ WARNING Warns of hazards that **CAN** cause serious personal injury, death or major property damage.

⚠ CAUTION Warns of hazards that **CAN** cause personal injury or property damage.

NOTICE: INDICATES SPECIAL INSTRUCTIONS WHICH ARE VERY IMPORTANT AND MUST BE FOLLOWED.

THOROUGHLY REVIEW ALL INSTRUCTIONS AND WARNINGS PRIOR TO PERFORMING ANY WORK ON THIS CONTROLLER.

MAINTAIN ALL SAFETY DECALS.

⚠ WARNING Disconnect and lockout electrical power before installing or servicing any electrical equipment.

⚠ WARNING **ELECTROCUTION HAZARD. CONTROLLER INPUT GROUND TERMINAL (GND) AND ALL EXPOSED METAL PIPING, INCLUDING PRESSURE TRANSDUCER CASE, MUST BE CONNECTED TO THE SERVICE ENTRANCE GROUND TERMINAL.**

⚠ WARNING All electrical work must be performed by a qualified technician. Always follow the National Electrical Code (NEC), or the Canadian Electrical Code, as well as all local, state and provincial codes. Code questions should be directed to your local electrical inspector. Failure to follow electrical codes and OSHA safety standards may result in personal injury or equipment damage. Failure to follow manufacturer's installation instructions may result in electrical shock, fire hazard, personal injury or death, damaged equipment, unsatisfactory performance, and may void manufacturer's warranty.

5VDC MOISTURE SENSOR RELAY

INSTALLATION INSTRUCTIONS

The Sensor can detect the presence of water and provide a relay output for signal or control of an external device. The switch operates on voltage DC and functions as a Normally Closed Sensor, for a Closed Loop system. The Red and Black wires power the switch while the White and Green wires are the relay output wires.

For installation to an alarm panel, the Red wire is connected to the positive side of a voltage supply and the Black wire is connected to the negative. The Green and White wires can then be connected to any pre-selected Closed Loop zone. A resistor can be connected in series with either the Green or White wire for those panels that require end-of-line resistance.

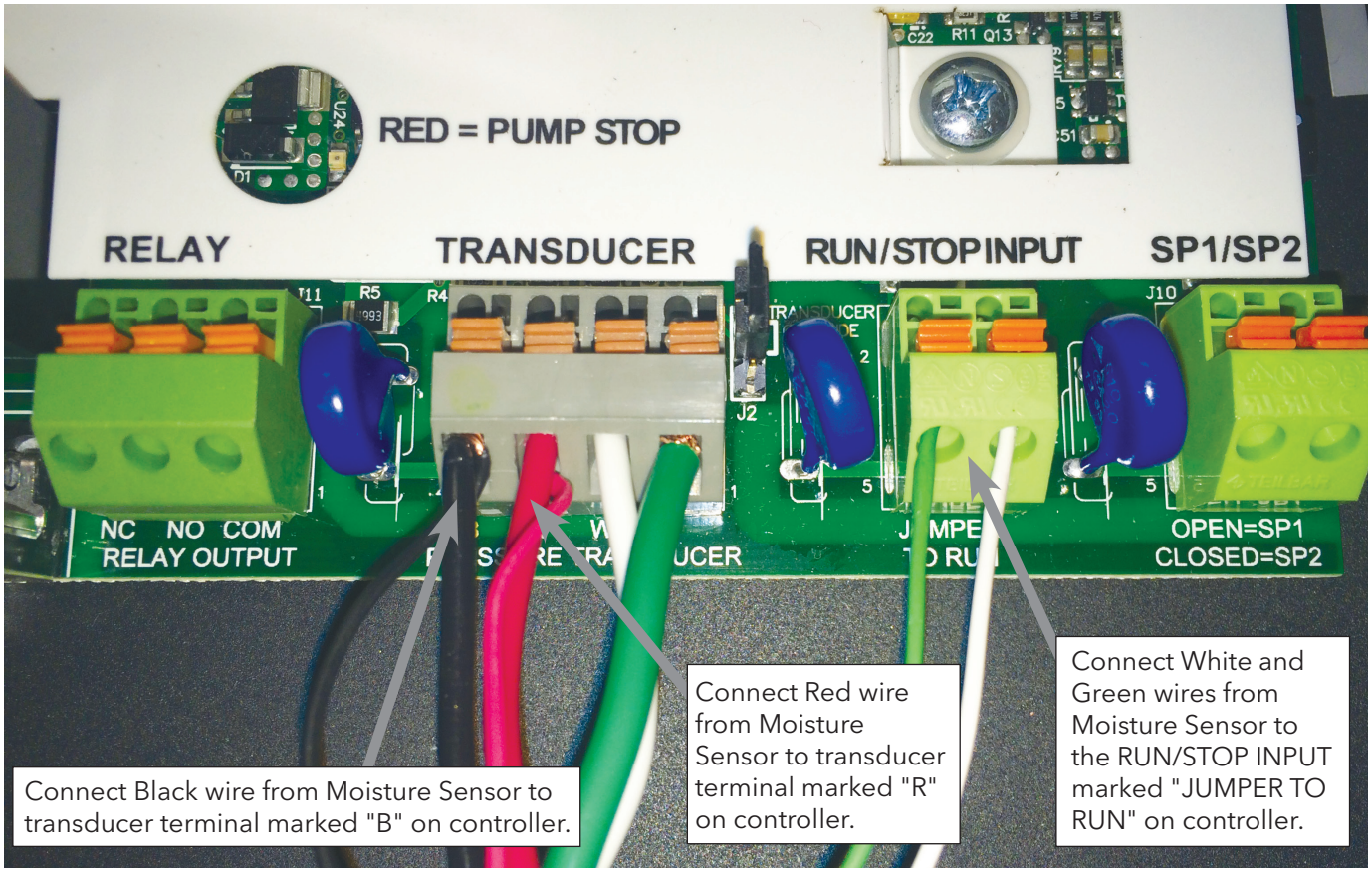
After installation these units should be tested with a damp sponge or paper towel and inspected annually. If there is any corrosion or damage the sensor should be replaced.

SPECIFICATIONS

Power Requirements:	**9K585**	**9K584**	**9K583**
Operating Voltage	5 Volts DC	12 Volts DC	24 Volts DC
Operating Current	10 mA	10 mA	10 mA
Contact Characteristics:			
Contact Resistance	100 mΩ	100 mΩ	100 mΩ
Switching Voltage	30 Volts DC Max	30 Volts DC Max	30 Volts DC Max
Switching Current	500 mA Max	500 mA Max	500 mA Max
Power	250 mW Max	250 mW Max	250 mW Max
Wire Connections:			
Red	5 Volts DC	12 Volts DC	24 Volts DC
Black	- Ground	- Ground	- Ground
Green	Relay Contact	Relay Contact	Relay Contact
White	Relay Contact	Relay Contact	Relay Contact

AQUAVAR SOLO, SOLO² AND BALANCED FLOW

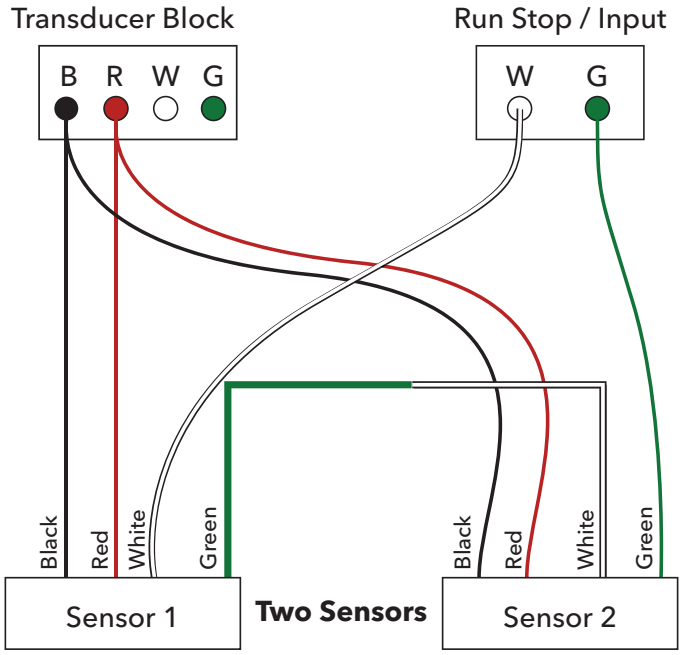
Connections for Moisture Sensor (Part Number 9K585) for Balanced Flow, Aquavar SOLO, SOLO² and 3AB2, 5AB2; AB2 Controllers



WIRING 2 OR MORE MOISTURE SENSOR RELAY IN SERIES

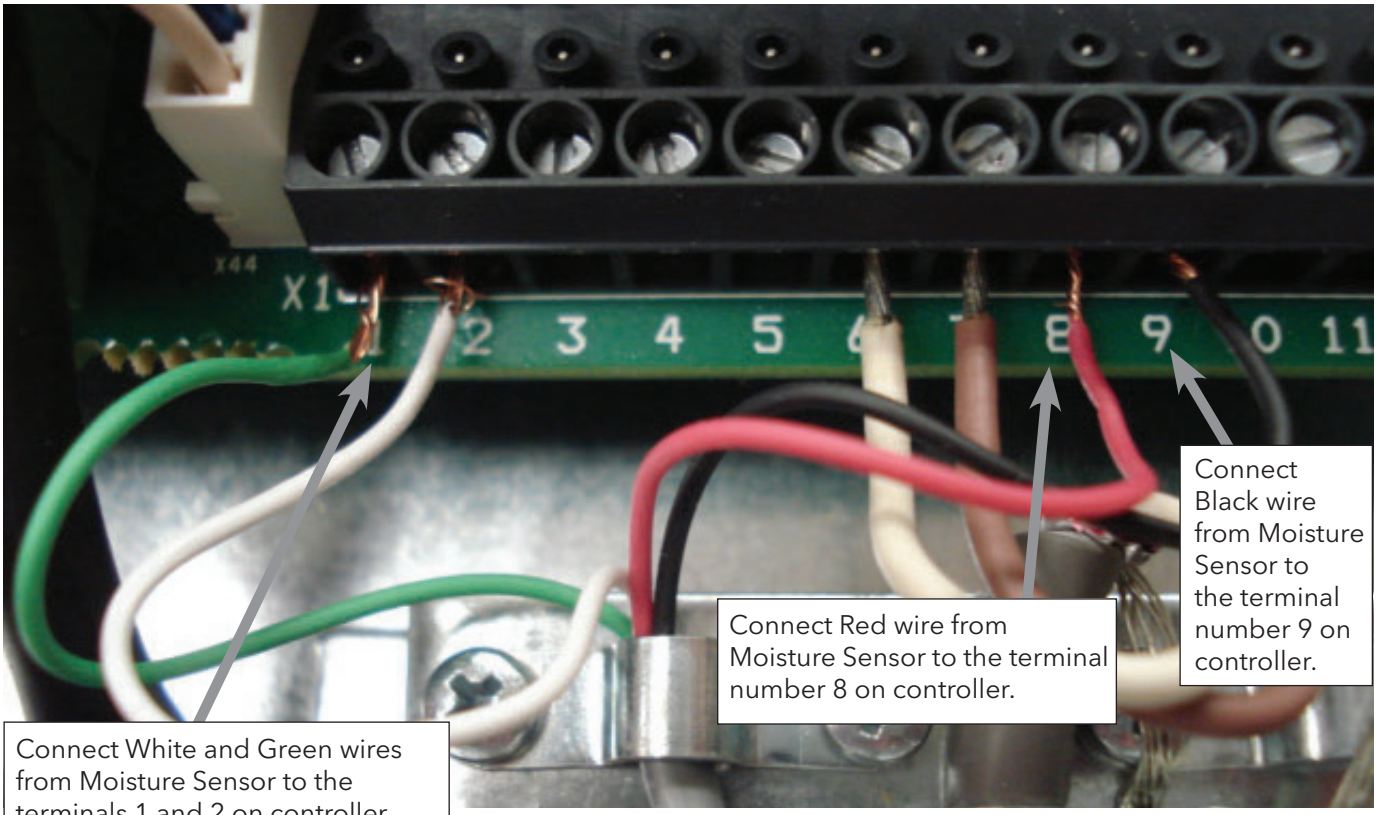
Connect Black and Red wires to the transducer terminal. Connect the white wire from sensor 1 and green wire from sensor 2 to the Run/Stop input terminal. Then wire the green wire from sensor 1 to the white wire of sensor 2. Now these sensors are wired in series. After all connections are made, perform a test to ensure the drive turns off when moisture is present at the sensors.

Aquavar SOLO UIB Board

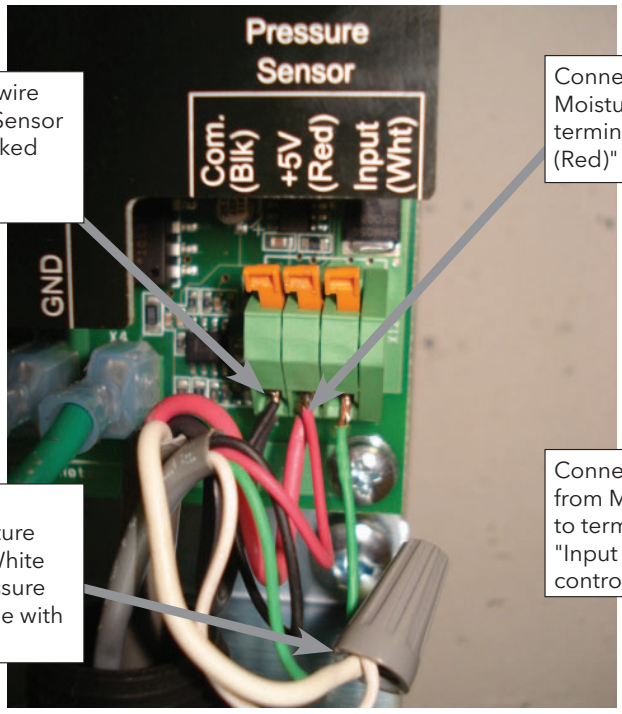


Wire 2 Sensors in Series

S-DRIVE AND AQUAVAR SPD



AQUAVAR AB2 OR AQUABOOST II



e-SM WITH MOISTURE SENSOR

Connections for Moisture Sensor (Part Number 9K584) for eSM Smart Motors



Connect red wire from Moisture Sensor to terminal 6 (15VDC) on eSM

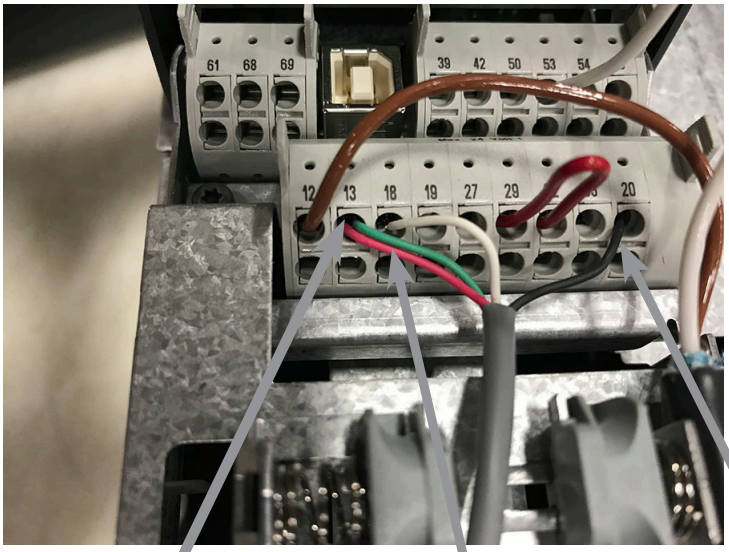
Connect green wire from Moisture Sensor to terminal 11 (Start) on eSM

Connect white wire from Moisture Sensor to terminal 12 (Stop) on eSM

Connect black wire from Moisture Sensor to terminal 17 (GND) on eSM

IPC WITH MOISTURE SENSOR

Connections for Moisture Sensor (Part Number 9K583) to IPC and Hydrovar

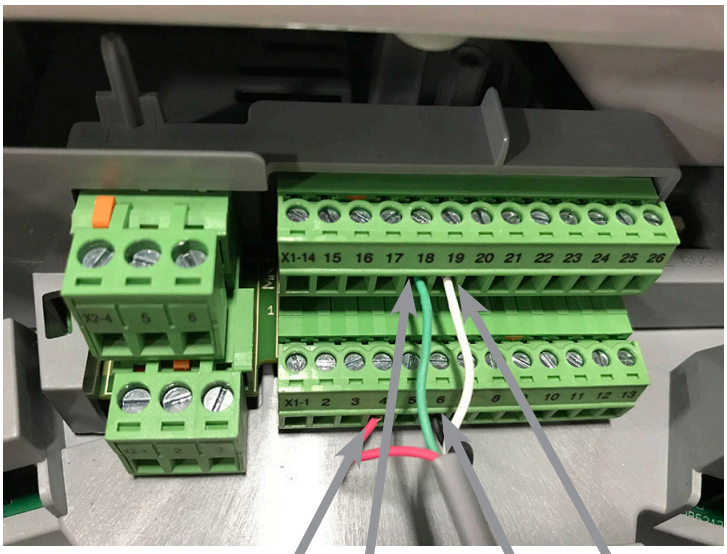


Connect red and green wires from Moisture Sensor to terminal 13 (24 V OUT) on IPC

Connect white wire from Moisture Sensor to terminal 18 (D IN) on IPC

Connect black wire from Moisture Sensor to terminal 20 (COM) on IPC

HYDROVAR WITH MOISTURE SENSOR



Connect red wire from Moisture Sensor to terminal 4 (24V) on Hydrovar

Connect black wire from Moisture Sensor to terminal 6 (GND) on Hydrovar

Connect green wire from Moisture Sensor to terminal 18 (ON/OFF) on Hydrovar

Connect white wire from Moisture Sensor to terminal 19 (GND) on Hydrovar

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