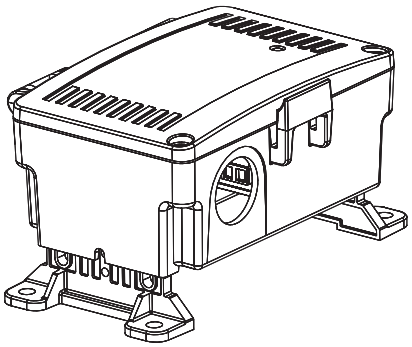
DUAL CHANNEL SPOT WATER DETECTOR

WLD2S Series - Installation Instructions



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INTRODUCTION

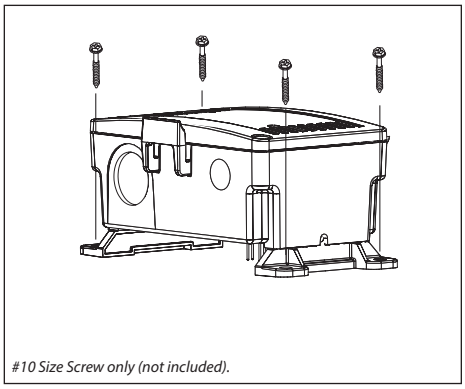
The dual channel spot water detector is used to detect the presence of water or conductive liquids. It features two sensing points, each with an independent relay output and is designed to signal alarms if one or more of three conditions are met: water is detected, power is lost to the unit, or if there is an internal failure.

The dual channel spot water detector features spot detection on channel 1, with sensing probes protruding from the bottom of the enclosure and on channel 2, the selection of either remote spot or conductivity cable which are available in several lengths.

It is housed in an IP65 rated enclosure with height adjustable mounting legs. An LED provides visual status indication.

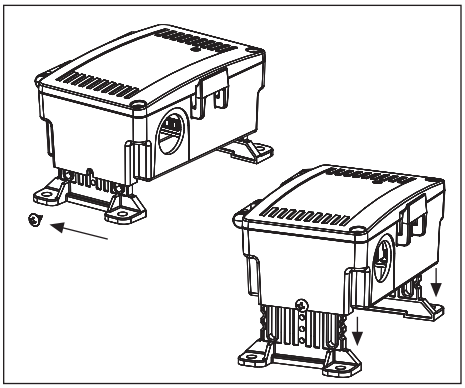
BEFORE INSTALLATION

- Read these instructions carefully before installing and commissioning the water detector. Failure to follow these instructions may result in product damage.
- Do not use in an explosive or hazardous environment, with combustible or flammable gases, as a safety or emergency stop device or in any other application where failure of the product could result in personal injury.
- **Take electrostatic discharge precautions during installation and do not exceed the device ratings.**

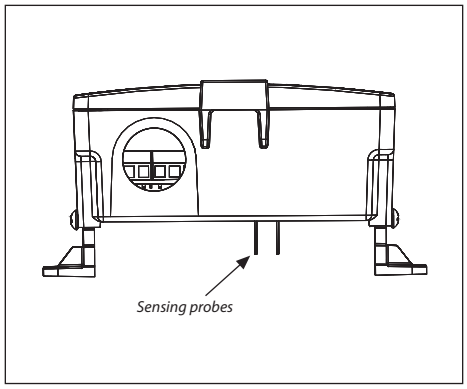


#10 Size Screw only (not included).

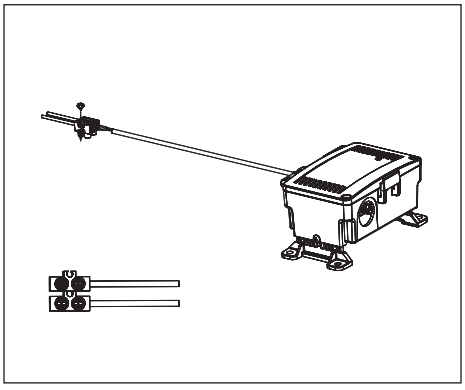
1 Select a suitable installation area to mount the device. Secure to the floor using silicone adhesive or with a #10 screw (not provided) using the integrated mounting holes.



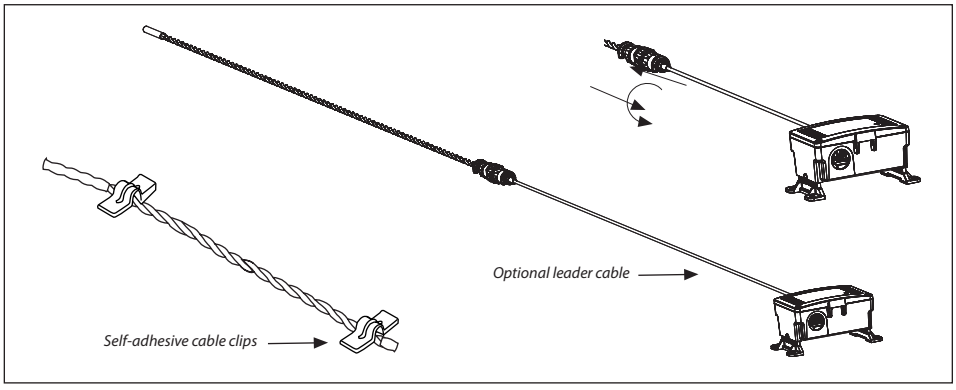
2 The legs have five pre-set heights. To adjust, remove screws from both legs. Pull/push the legs to the desired height, and re-insert screws.



3 The sensing probes distance to floor is 1 mm (0.04") on lowest leg setting and 26.5 mm (1.04") on highest leg setting.



4 If channel 2 is remote spot detection, route the cable to desired location. Mount the terminal block using a screw or adhesive. Make sure sensing probes do not contact any surface.



5 If Channel 2 is Conductivity Cable, Once laid in place, secure using the self-adhesive cable clips provided. For best results adhere clips at each end of the cable first. Clips are provided to secure cable approximately every 1.5 m (5').

NOTE: If the device was ordered with a leader cable, the conductivity cable can be disconnected to assist in installation. To remove, twist connector counter-clockwise and pull apart.

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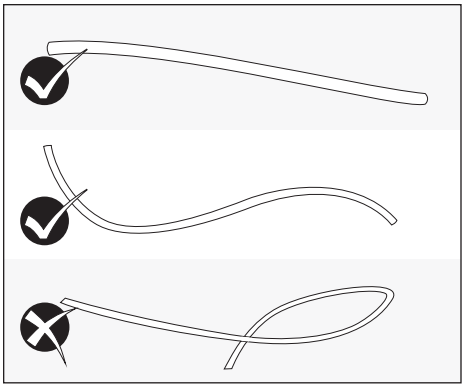
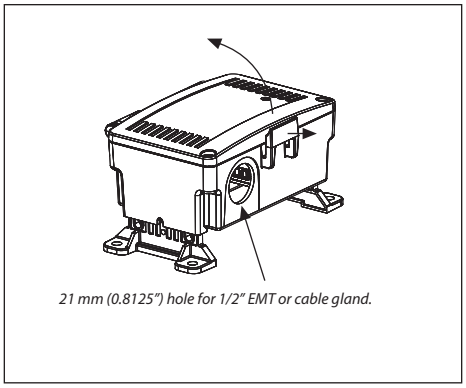
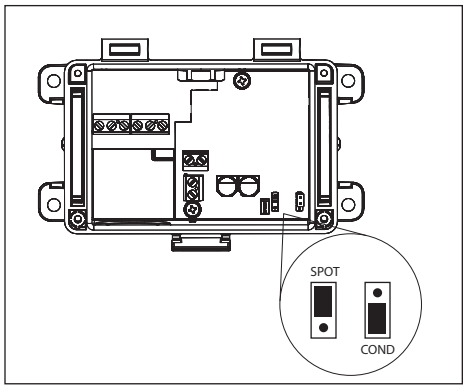


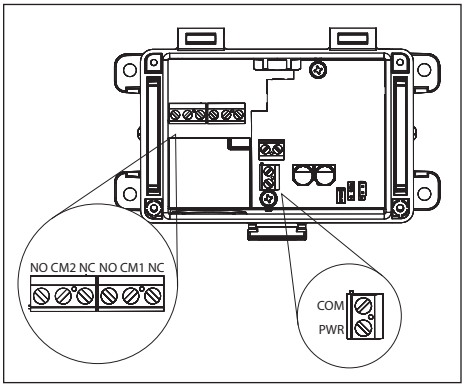
5 The cable may be laid in a straight line or in a serpentine configuration. Be careful not to kink cable.



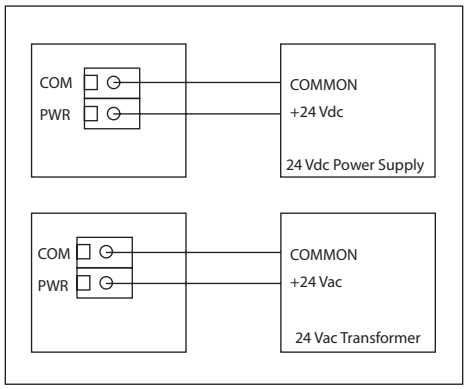
6 Open the cover by pulling slightly on the latch on the enclosure and at the same time pulling up on the cover.



7 All jumpers are factory set. Improper positioning will cause device to be in constant alarm state.
Spot = SPOT position
Remote Spot = SPOT position
Conductivity Cable = COND position

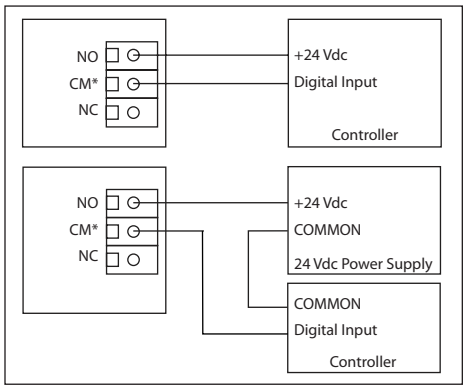


8 Make all connections in accordance with national and local codes. Use 14-22 AWG shielded wire and do not locate the device wires in the same conduit with wiring used to supply inductive loads such as motors. The device is reverse voltage protected and will not operate if connected backwards.



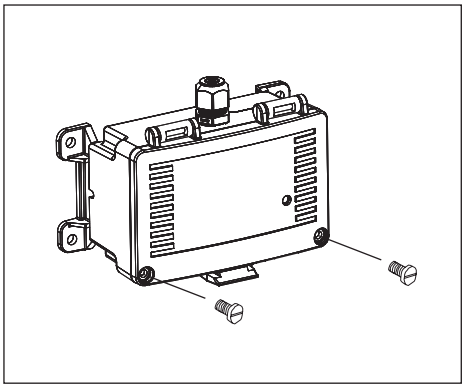
9 To prevent electrical shock or equipment damage make all connections before applying power. Connect 24 Vac/Vdc to PWR & COM terminals.

NOTE: Use caution when wiring multiple devices or when grounding the secondary of a transformer to ensure that the circuit ground point is the same on all devices and the controller.



10 Do not exceed the device contact ratings. The relays are Form C type with both a normally open (NO) and a normally closed (NC) contact. Relay terminals are designated NO, CM* and NC.

NOTE: Each relay output is independent and isolated from the other and the relays COMs are not connected to the device COM.



11 Use the provided secturity screws to secure the cover.

OPERATION

When the sensor is powered on the controller will monitor the liquid detection channels. If a conductive liquid comes in contact with the sensor probes or conductive cable the controller will trigger the relays to indicate liquid is present.

The relays are fail-safe, meaning when power is applied to device the relay is powered. If power is lost to device the relay will de-energize signaling a fault to the system.

Channel 1: Relay Activates on water detection.
Channel 2: Remote Spot: Relay activates on water detection.
Channel 2: Conductivity: Relay activates on water detection or trouble.

LED: Green = No water detected
Yellow Solid = Channel 1 Water Detection
Red Solid = Channel 2 Water Detection
Red Flash = Channel 2 Trouble (Conductivity Cable Only)

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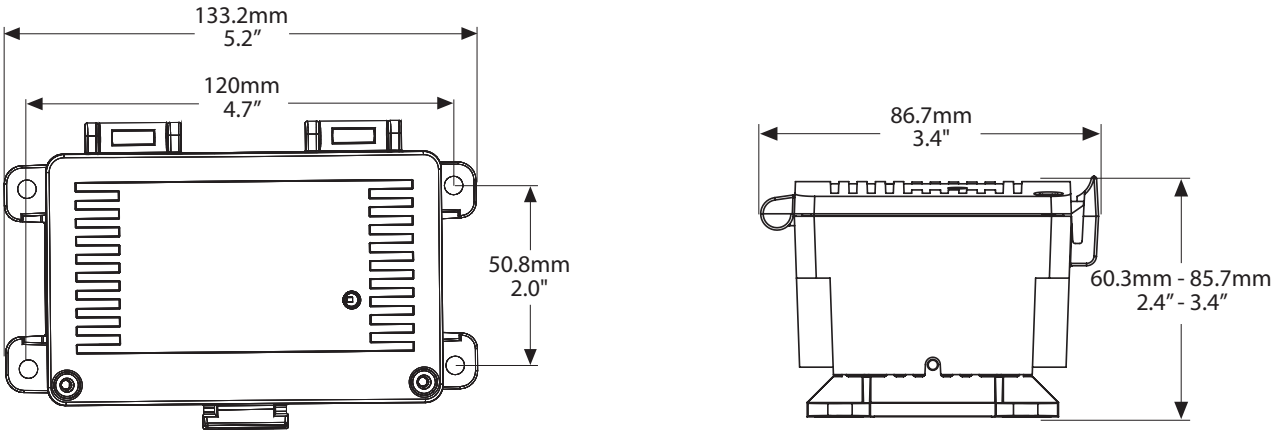
SPECIFICATIONS

VISUAL INDICATION	Tri-color LED - Green,Yellow, Red
OPERATING TEMPERATURE	0 to 60°C (32 to 140°F)
DIMENSIONS	133.2mm L x 86.7mm W x 60.3-85.7mm H (5.2″ x 3.4″ x 2.4″- 3.4″)
SENSOR PROBE HEIGHT	1 mm - 26.5 mm (0.04" - 1.04") Adjustable
CABLE TYPE (REMOTE SPOT)	FT-6 Plenum rated
PROTECTION CLASS	III
POWER SOURCE UL	12-27 Vac/Vdc, 50/60 Hz, SELV, Class 2
CONSUMPTION	125 mA max @ 24 Vac
OUTPUTS	2A, 30 Vac/Vdc, 6000 cycles, resistive, 60°C, SELV Class 2 1 or 2 Form C relay alarms (NO/NC)
EU CONFORMITY	CE
UL MODEL#	WH2O22SR, WH2O22SC
CERTIFICATION	UL 60730 & CSA E60730
UL 2043 / CSA / ULC S142 COMPLIANT:	Suitable for Use In Air Handling Spaces in Accordance with Section 300.22, (C) of the National Electrical Code
ENCLOSURE	Type 4X and IP65, ABS w/ hinged & gasket cover
PURPOSE OF CONTROL	Operating Control, Water Detector
TYPE OF ACTION	Type 1. C Action
IMPULSE VOLTAGE	330V
POLLUTION DEGREE	3
COUNTRY OF ORIGIN	Canada

DIMENSIONS



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SENSING CABLE CARE AND MAINTENANCE

This guide outlines sensing cable care, maintenance, and troubleshooting.

Cleaning the Sensing Cable:

While the sensing cable is engineered to resist contamination from dirt and dust, periodic cable maintenance is recommended. This keeps your cable free of foreign particles and ensures the fastest, most reliable leak detection response.

There are two preferred ways to clean the sensing cable:

Clean the Cable with Isopropyl Alcohol

Cleaning the cable with alcohol allows you to clean the sensing cable without completely removing it from the installed location. You'll remove the section of cable you wish to clean from its J-clips, wipe it down, and reinstall the cable. This method will clean most contaminants from the cable and will sufficiently clean the cable in many cases.

1: Obtain a dye-free heavy cloth rag and a bottle of isopropyl alcohol.
2: Remove the first section of cable to be cleaned from its j-clips.
3: Soak the rag with alcohol.
4: Wrap the rag around the cable and squeeze firmly while pulling the rag down the length of the cable.
5: Flip the rag every several feet. Re-saturate the rag with alcohol as required.
6: Once you've reached the end of the first section of cable, place it back in the J-clips and proceed to the next section.
7: Replace the rag if it becomes too dirty.

Clean the Cable with Warm Soapy Water

If you still notice problems with your sensing cable after you've cleaned it with isopropyl alcohol, or if you believe the cable is so dirty that it requires a more intense scrubbing, clean the cable with warm soapy water. This process requires you to completely remove the cable from the installed location, submerge it in a soap and water solution, scrub it with a brush, and hang it to dry.

1: Remove the sensing cable from its installed location. To help with the reinstallation process, label the sections of cable or note their location.
2: Gather Dawn dish soap, a large bucket or plastic bin, warm water, soft-bristled scrub brushes, and clean rags.
3: Locate an area inside or outside your facility that will not be affected by water.
4: Add Dawn dish soap to a bucket of water. Use about 1 cup of Dawn to 1 gallon of warm water. To determine if your solution is concentrated enough, place your finger, and thumb in the water and rub them together. You should feel a slick/slimy residue. If you do not feel a residue, add more detergent to the water and gently mix to distribute the soap.
5: Submerge a section of the cable in the water.
6: Using a scrub brush or rag, scrub along the surface of the cable with firm pressure. Scrub all sides of the cable.
7: Remove the section of the cable from the soapy solution and rinse it in a bucket of clean, fresh water.
8: Ensure there are no oily deposits along the length of the cable. If the cable does not appear clean, repeat steps 6 and 7.
9: Hang up the cable to dry. Try to point the connectors down so water cannot pool inside the connectors. The drying process may take 6 to 48 hours, depending on the room conditions.
10: Once the cable is completely dry, reinstall it in its original location.

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