

WD1/LP Series

Low Profile Point Leak Detector

FEATURES

Adjustable Probe Height
Wide Range of Operating Voltages
Form "C" Relay Output for Alarms
(2Amp/120Vac Rated)
Silver Sensing Probes
Red LED Indicator Light
Encapsulated Electronics
Failsafe Circuitry (WD1-S Only)
Self Contained System
(No special monitor panel required)
Design Flexibility
Simple Installation



PO Box 459 Lone Oak, Texas 75453 Phone: 214-607-9991 Fax: 903-862-2058

WWW.DARWELLIT.COM



GENERAL

The DiT, Inc. WD1 –LP (Low Profile) series of Point Detectors featuring silver-plated probes and microchip technology for the highest level of water detection confidence. The design allows for a sturdier floor or pan mount as well as a lower height profile for clearances. All WD1-LP series detectors use the same proven and reliable WD1 electronics. All models can be operated from 12-24 Volts AC or DC. Alarm signaling is provided with one or two form "C" relay contacts, depending on the model ordered. Connect the WD1–LP to a DiT, Inc. MPR, GMP monitoring panel or a SCADA or BMS monitoring system to complete the monitoring package. A height adjustable, galvanized steel enclosure is standard.



The WD1-LP models change the relay contact state, and lights the red LED on the cover when

water is present at the sensing probes. The WD1-LP model provide a single or dual set of dry relay contacts. The WD1-LPS models include fail-safe circuitry to signal an alarm condition for an internal malfunction or loss of power to the sensor. The WD1-LPS models incorporate a reverse acting set of relay contacts that are closed in a normal condition.

OPERATION

The WD1-LP or WD1-LPS can be used with any "contact-closure" monitoring panel. The "dry" contact points may be wired normally open or normally closed, allowing wiring flexibility to handle most installations.

Relay contacts on the WD1-LP sensors, once powered, remain in the same state until water is applied to the sensing probes. When water is present, the relay contacts make.

On WD1-LPS sensors, the relay contacts are reverse acting and make as soon as power is applied.

When water is present at the sensing probes, the relay releases and returns to a non-powered state. During a powered steady state condition, the contacts will change states and signal an alarm condition if:

- A leak is detected
- 2. An internal malfunction occurs
- 3. Power is lost to the sensor

MOUNTING

The units mount directly on the floor or sub-floor. Two ¼" mounting holes are provided (one on each flange) for anchoring to the floor. Adjust the height of the sensing probes with the screws on the mounting legs. The mounting flanges are longer and sturdier to prevent accidental dislodging from cable pulls under the floor.

WIRING

The unit requires 12-24 Volts DC or AC power. Shielded cable should be used for wiring to prevent electrical noise. Electrical knockouts (1/2") are provided on each side or electrical conduit connection.

WD1-LP Wire Connections

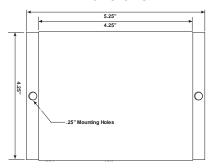
Red Positive Power White Negative Power

WD1-LP Models WD1-LPD Models

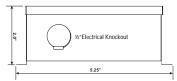
Orange Relay Common Blue N.C. Contact
Blue N.C. Contact Purple N.O. Contact
Yellow N.O. Contact Black Relay Common

Relay contacts are non-powered "dry" contacts. Relay contacts are reverse acting on WD1-LPS models.

Dimensions







WD1-LP or LPS Wire Connections

Red Positive Power White **Negative Power** Orange Relay Common Normally Open Yellow Blue Normally Closed Use 18-22 gauge stranded or solid core

WD1-LPD or LPDS Wire Connections

Red Positive Power White Negative Power Relay Common Orange Yellow Normally Open Normally Closed Blue Purple Normally Open Black Relay Common Normally Closed Brown Use 18-22 gauge stranded or solid core wire.

SPECIFICATIONS

Model Number WD1-LPXX

Power 12-24 Volts AC or DC @50MA

WD1-LP

Alarm Output One Form "C" Relay Contacts Contacts (2Amp/120Vac Rated)

WD1-LPS

One Form "C" Relay (Reverse Acting) Alarm Output

Contacts (2Amp/120Vac Rated)

WD1-LPD

Alarm Output Two Form "C" Relay Contacts Contacts (2Amp/120Vac Rated)

WD1-LPDS

Alarm Output Two Form "C" Relay (Reverse Acting)

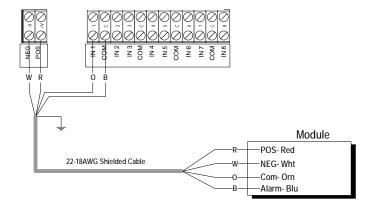
Contacts (2Amp/120Vac Rated)

Indicator Light Red LED

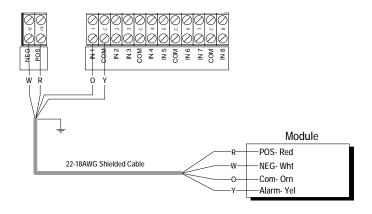
Environmental 32-125F/0-95%Rh 5"L x 5"H x 2.25"D Size Weight

1.4 lbs.

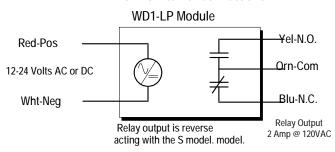
WD1-LP Wiring Diagram to MPR10XL Panel



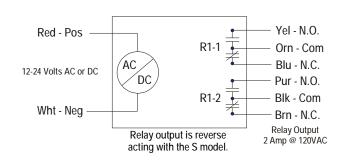
WD1-LP Wiring Diagram to SCADA Digital Inputs



WD1-LP / LPS Internal Connections



WD1-LPD Internal Connections





PO BOX 459, Lone Oak, Texas 75453 Phone 214-607-9991 FAX 903-862-2058 WWW.DARWELLIT.COM