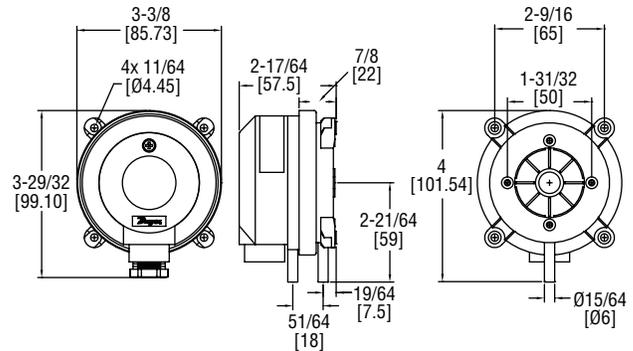




Series EWDP Wireless Communicating Adjustable Differential Pressure Switch

Bulletin P-EWDP

Specifications - Installation and Operating Instructions



The **SERIES EWDP** Wireless Communication Adjustable Differential Pressure Switch uses EnOcean® wireless technology to monitor pressure, vacuum, and differential pressures. The dual scaled adjustment knob in inches of water column and pascals allows changes to the pressure set point to be made without a pressure gage. The battery-powered switch is equipped with radio module for frequencies of 902 MHz or 868 MHz which sends a signal wirelessly to a receiver at each change of status. The silicone diaphragm makes this series ideal for use with air and other noncombustible gases. The EWDP is available with settings from 0.08 in w.c. (20 Pa) up to 20 in w.c. (5000 Pa). The compact size, adjustment knob, and wireless capabilities make the EWDP the perfect choice for HVAC applications in temporary installations or retrofits of existing buildings.

Use only with mediums such as air, or other noncombustible or non-aggressive gases. Otherwise operating faults or accidents may occur.

MOUNTING

Begin by checking the pressure switch to ensure there is no visible damage to the housing. If the housing is damaged and may leak, the pressure switch should not be used.

Position:

It is recommended that mounting is done in a vertical position with the pressure inlets pointing downward. If there is no potential for condensation forming, the pressure switch may be mounted with the pressure ports in a horizontal position. This is not recommended, and will result in readings that are approximately 0.08 in w.c. higher than indicated on the adjustment knob. When mounting horizontally, the device should be mounted lying down with the adjustment knob pointing upwards. Mounting should not be done with the pressure inlets pointing upwards, as the device will not be accurate.

Mounting with Screws or Brackets:

1. To mount the pressure switch, L-shaped A-288 and S-shaped A-289 mounting brackets can be ordered separately. To secure the bracket on the rear side of the housing, use only the sheet metal screws (3.5 X 8 mm) which are provided with the bracket. Otherwise, the base of the housing could be punctured resulting in the pressure switch leaking.

2. The pressure switch can also be mounted directly to a wall. To do this, use screws with a maximum diameter of 0.315" (8.0 mm). Do not over tighten screws allowing the housing to crack or deform. If cracks or deformation happens, the pressure switch can leak and readings will not be accurate.

SPECIFICATIONS

Service: Air and non-combustible, compatible gases.

Wetted Materials: Diaphragm material: Silicone; Housing material: POM; Switch body: PA 6.6; Cover: Polystyrene.

Temperature Limits: Process and ambient: 14 to 158°F (-10 to 70°C); Storage: -40 to 185°F (-40 to 85°C).

Pressure Limits: 40 in w.c. (10 kPa).

Process Connections: 5/16" (7.94 mm) outside diameter tubing, 1/4" (6.0 mm) inside diameter tubing.

Power Requirements: (1) 3 V CR2032 lithium metal battery, installed non-functional, user replaceable (included).

Enclosure Rating: NEMA 3 (IP54).

Mounting Orientation: Vertically, with pressure connections pointing downwards.

Weight: 5.3 oz (150 g).

Agency Approvals: CE.

INSTALLING HOSES

IMPORTANT: Pressure hoses cannot be kinked. When running hose over an edge, it is best to form a loop to ensure the hose will not kink. If the hoses are kinked, pressure readings will not be accurate.

For hose connection to the switch, use the provided hoses or one with an internal diameter of 0.25" (6.0 mm).

- Connect the hose with the higher pressure to socket P1 which is located in the lower section of the housing.
- Connect the hose with the lower pressure to socket P2 which is located in the upper section of the housing.

After installing the hoses, check them for tightness of fit at the connection points and ensure there are no kinks in the line.

SETTING THE PRESSURE RANGE

Removing The Cover:

To remove the cover, unscrew the black housing cover screw located in the recessed portion of the cover.

Adjusting:

Make certain that the jumper is in the 'system off' position before carrying out any pressure adjustments. Refer to Figure 1 for an example of the jumper in an off position.

Using the adjustment knob, set the desired differential pressure to trip the switch. When the pressure decreases, the switch will return to the resting position as soon as differential pressure drops below the deadband.

Note: Indications on the dial are only correct for the vertical mounting position.

Attaching The Cover:

Place the cover back on the device, ensuring it is on straight. Using the provided screw, tighten the cover back onto the housing.

TESTING THE SET POINT

Using a known pressure, slowly raise the pressure until the switch trips, then slowly lower it again until the device resets.

IMPORTANT: Observe the maximum permissible operating pressure of 40 in w.c. (10 kPa) which is indicated in the data sheet. If this is not followed, damage will occur to the device.

LINKING

The Series EWDP Differential Pressure Switches can be linked to Series USB-300 Wireless Receiver and DolphinView Basic software. (For information on that download process, see the instruction manual for USB-300.) To connect the two units, the EWDP must be turned on. See Figure 1 below to see how the unit should look when it is on.

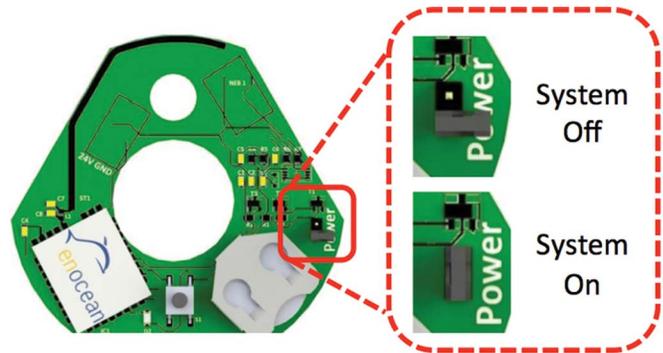


Figure 1

Once the unit is turned on, plug the USB-300 into the computer being used and open the DolphinView Basic. Within a few minutes, the EWDP should begin communicating with the software.

TEST MODE

To test the unit, press the button inside of the cover. For one hour, the LED will flash with each change of the switch status.

MAINTENANCE/REPAIR

Upon final installation of the Series EWDP, no routine maintenance is required. The Series EWDP is not field serviceable and should be returned if repair is needed. Field repair should not be attempted and may void warranty.

WARRANTY/RETURN

Refer to "Terms and Conditions of Sale" in our catalog and on our website. Contact customer service to receive a Return Goods Authorization number before shipping the product back for repair. Be sure to include a brief description of the problem plus any additional application notes.