

# PAV-WN/WNS

ECS Nitrogen Inerting Vent



## Features

ECS Nitrogen Inerting Vent (U.S. Patents No. 8,636,023)

- Patented redundant float design - Eliminates piping to a drain
- Cam-Lock Coupling - Easy installation and servicing
- Pressure Gauge - Visual monitoring from the floor
- Isolation Ball Valve Included
- Nitrogen Injection Port (PNIP-1) Included
- Available in Supervised (PAV-WNS)
- Entire Assembly is FM 1344 Approved - Air Vents for Automatic Sprinkler Systems
- Entire Assembly is UL VPMG Listed - Valves, Automatic Air Release

## General Description

The ECS Nitrogen Inerting Vent (PAV-WN/NS) is the only device that provides automatic controlled venting of trapped gases in wet pipe fire sprinkler systems during the Wet Pipe Nitrogen Inerting (WPNI) process. As a fire sprinkler system is filled with water, trapped gas migrates to the high point of the system near the vent installation location which allows for trapped gas to be vented.

Trapped air contains oxygen which is the primary cause of corrosion in fire sprinkler systems. Corrosion in wet pipe fire sprinkler systems is directly proportional to the amount of oxygen trapped within the system piping, so a reduction in trapped air will in turn reduce the internal corrosion activity of the fire sprinkler system. Venting the trapped gas in a wet pipe sprinkler system can also decrease water delivery time and reduce water flow alarms.

The controlled venting is achieved by integrating a pressure relief valve on the gas discharge piping assembly of the ECS Nitrogen Inerting Vent. During the wet pipe nitrogen inerting process, the vent remains closed to facilitate purging of corrosion causing oxygen from the FPS piping network. Once the piping has been appropriately inerted with nitrogen gas using the ECS WPNI protocol and filled with water, the vent allows trapped gases to vent from the piping as the system returns to normal pressure. When the PAV-WN/WNS is used in conjunction with the nitrogen inerting process to provide internal corrosion control for wet pipe fire sprinkler systems by injecting nitrogen gas into the piping network to achieve a nitrogen gas concentration of at least 98%, this controlled venting achieves the following:

1. Prevents premature venting of nitrogen gas during Wet Pipe Nitrogen Inerting process.
2. Allows for gas sampling in remote areas of the FPS piping network to measure the nitrogen concentration levels within the system.
3. Allows for venting the trapped gas within the system when the FPS is filled with water and put into service.

## Specifications

<b>Dimensions</b>	10" (W) x 7" (H) x 6" (D)
<b>Weight</b>	9 Lbs (4kg)*
<b>Service Pressure</b>	Up to 175 PSIG (12 Bar)
<b>Relief Valve Setting</b>	40 PSIG (2.8 Bar)
<b>System Connection</b>	Vent: ½" NPTM Injection Port: 1" NPTM
<b>Temperature Range</b>	40° F - 270° F (5° C - 132° C)
<b>Clear Height</b>	5.5"
<b>Optional Equipment</b>	Remote Inerting Station (RIS-1)

\*Support Hanger Not Required

## Installation

The ECS Nitrogen Inerting Vent must be installed as shown on the engineering design documents. If a location is not provided, install the vent at an accessible high point on the fire sprinkler system remote from the system riser where gas can be vented and at a location that the pressure gauge provided for visual monitoring can be viewed from directly below. The PAV-WN/WNS is also equipped with brass components that allows the device to be installed in areas subject to external corrosion. For detailed installation and operation please refer to the PAV-WN/WNS installation sheet.

## Maintenance

The ECS Nitrogen Inerting Vent (PAV-WN/WNS) require limited maintenance. ECS recommends inspecting annually, check the pressure gauge on the bottom of the vent assembly.

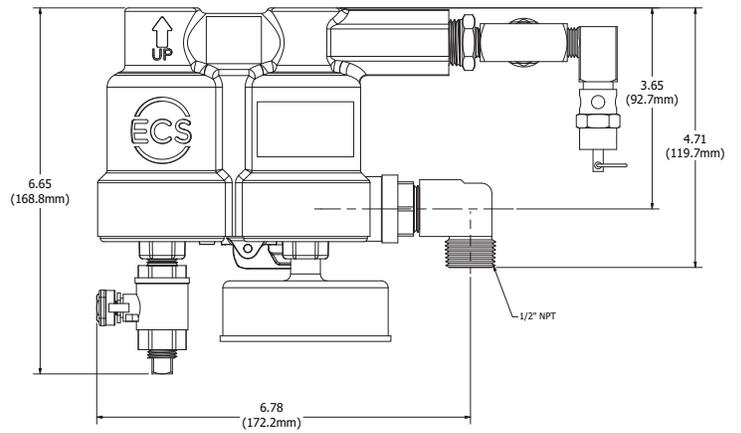
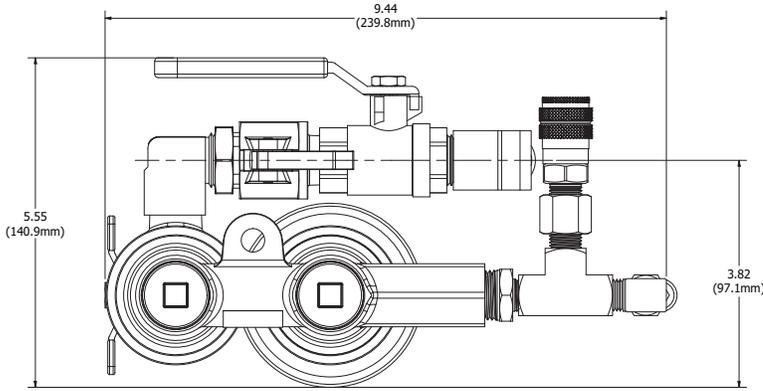


RIS-1 (Optional)

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## PAV-WN



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