

# Vent Kit (R4300XFK12 or R4300XPVK12) Installation Instructions

## Supplement to Fisher™ 4320 Wireless Position Monitor with On/Off Control Option Instruction Manual

This supplement contains information for installing an IP66 Vent Kit, part number R4300XFK12 or R4300XPVK12, on the housing of a 4320 with on/off control option.

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### Note

Refer to the 4320 instruction manual ([D103621X012](#)), available from your [Emerson Automation Solutions sales office](#) or at [www.Fisher.com](http://www.Fisher.com) for all other information regarding the 4320 wireless position monitor.



This supplement also pertains to TopWorx™ 4310 Wireless Position Monitors with On/Off Control Option (Supported Status), see instruction manual ([D103622X012](#)), available at [www.Fisher.com](http://www.Fisher.com), for information regarding the 4310 wireless position monitor.

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## Included Tools

Note: Tools are included in R4300XFK12 only

- 5/8" Drill Bit
- 23/32" Drill Bit
- 1/2"-14 NPT Pipe Tap

## Included Parts

Note: Parts are included in both R4300XFK12 and R4300XPVK12

- 1/2 NPT Vent



- 1/2 NPT 90° Pipe Elbow



- 1/2 NPT Check Valve



- Pipe Sealant

**⚠ WARNING**

Always wear protective clothing, gloves, and eyewear when performing any maintenance procedures to avoid personal injury or property damage.

Do not remove the actuator from the valve while the valve is still pressurized.

Disconnect any operating lines providing air pressure, electric power, or a control signal to the actuator. Be sure the actuator cannot suddenly open or close the valve.

Use bypass valves or completely shut off the process to isolate the valve from process pressure. Relieve process pressure on both sides of the valve.

Use lock-out procedures to be sure that the above measures stay in effect while you work on the equipment.

Check with your process or safety engineer for any additional measures that must be taken to protect against process media.

**⚠ WARNING**

When using natural gas as the supply medium the following also applies:

When disconnecting any of the pneumatic connections or any pressure retaining part, natural gas will seep from the unit and any connected equipment into the surrounding atmosphere. Personal injury or property damage may result if natural gas is used as the supply medium and appropriate preventive measures are not taken. Preventive measures may include, but are not limited to, one or more of the following: ensuring adequate ventilation and the removal of any ignition sources.

In order to install the vent, a 1/2 NPT hole needs to be present in the instrument housing. New instruments are supplied with this hole available. If a 1/2 NPT hole is not available, follow the instructions below for drilling. If the hole is already drilled, proceed to Vent Installation instruction section.

## Instructions to Drill and tap conduit entry for vent assembly

1. Fully open the cover of the instrument; this action will move the power module out of the way for the next operation.

**⚠ WARNING**

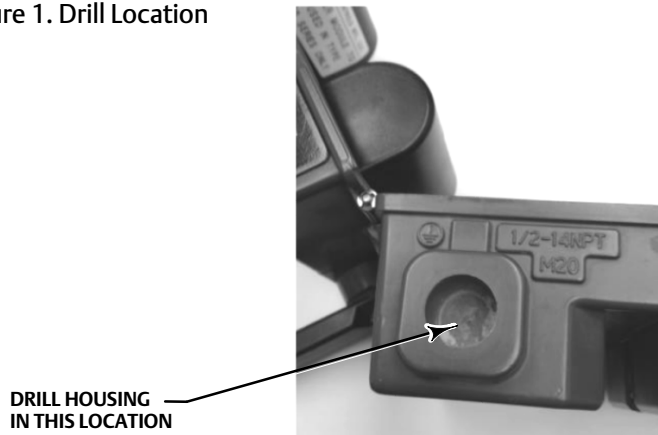
Ensure the power module is clear before the drilling operation. Remove the power module if required. Accidentally drilling into the power module may result in property damage, personal injury or death.

2. Drill an initial bore using 5/8" drill bit centered on the bottom housing boss. Using a 23/32" drill bit, follow by drilling through bottom boss of the instrument and tap for 1/2"-14 NPT (do not use M20) threading as required. Remove any aluminum particulate from inside of housing. Reference figure 1 for clarity.

**⚠ WARNING**

Always maintain a firm footing and control of the tool during drilling operation. Failure to do so could result in personal injury.

Figure 1. Drill Location



To maintain IP66 rating with the vent assembly the vent must be installed facing downward. A 90° elbow is provided for units mounted in non-vertical orientations. A non-vertical orientation is any orientation where the nameplate is not facing downward as mounted.

Continue with the appropriate Vent Installation procedure below based on your installation requirements.

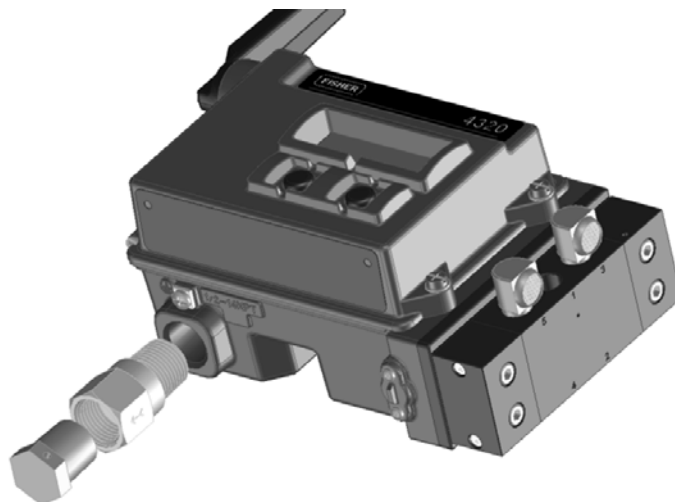
## Vent Installation

### Vent Installation for vertically mounted (nameplate facing downward) units only

An exploded view of this assembly is shown in figure 2.

1. Apply pipe sealant to male threads on the 1/2 NPT check valve.
2. Thread the check valve into the newly tapped 1/2 NPT connection of the wireless position monitor. Ensure the connection is tight.
3. Apply pipe sealant to male threads of the 1/2 NPT Vent.
4. Thread the 1/2 NPT vent into the check valve. Ensure the connection is tight.
5. Ensure all connections of the vent assembly are tight.

Figure 2. Vent Installation for Vertically Mounted Units

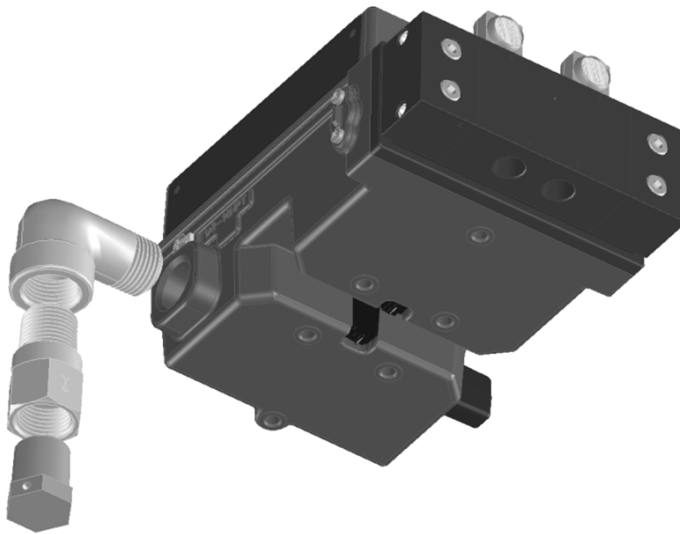


## Vent Installation for non-vertically mounted (nameplate not facing downward) units

An exploded view of this assembly is shown in figure 3.

1. Apply pipe sealant to male threads of the 1/2 NPT 90° pipe elbow.
2. Thread the 1/2 NPT 90° pipe elbow into the newly tapped 1/2 NPT connection of the wireless position monitor. The 90° pipe must be facing downward to maintain an IP66 rating. Ensure the connection is tight.
3. Apply pipe sealant to male threads on the 1/2 NPT check valve.
4. Thread the check valve into the 1/2 NPT 90° pipe elbow. Ensure the connection is tight
5. Apply pipe sealant to male threads of the 1/2 NPT Vent.
6. Thread the 1/2 NPT vent into the check valve. Ensure the connection is tight.
7. Ensure all connections of the vent assembly are tight.

Figure 3. Vent Installation for Non-Vertically Mounted Units



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