DET-TRONICS

INSTRUCTIONS

Universal Air Shield/Flange Mount Assembly Model Q1118

DESCRIPTION

The Q1118 Universal Air Shield/Flange Mount Assembly is a dual purpose device. As an air shield, it provides a constant flow of clean air across the outside surface of the detector window, thereby reducing contamination buildup and extending maintenance intervals.

The flange mount on the Q1118 allows the detector to be mounted directly to a duct or wall. It is compatible with Det-Tronics X3301, X3302, X2200, X5200 and X9800 detectors and is recommended for use in applications where high levels of airborne contaminants are present in the environment.

The assembly is available in aluminum or stainless steel and attaches directly to the detector housing. It is easily removed when performing detector maintenance. See Figure 1 for dimensions.

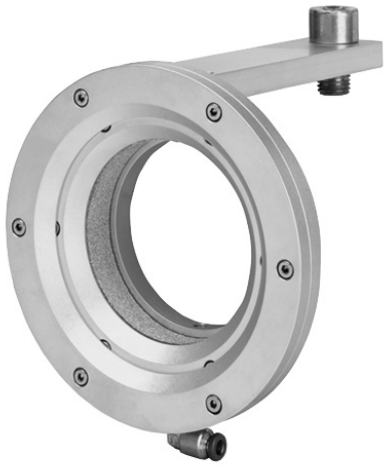
The use of the Q1118 does not interfere with:
- Detector mounting
- Detector cone of vision
- Manual or automatic **oi** testing of the detector.

The Q1118 is rated for 0°F to +150°F (-18°C to +66°C). However, if the air inlet fitting (designed for plastic tubing) is replaced with a standard elbow fitting (designed for metallic piping), the temperature range can be expanded to -40°F to +257°F (-40°C to +125°C).

AIR SUPPLY

NOTE

Instrument grade air is required. A dedicated regulator for each unit is also required. Filtration should be used to ensure that the air is dry and oil free. The presence of oil in the air supply must be avoided, since it can accumulate on the detector viewing window and reduce the sensitivity of the detector. In addition, oil can clog the sintered metal ring and reduce the effectiveness of the air shield.



Connection to the compressed air supply is provided using a quick connect coupling. The recommended tubing is 1/4 inch O.D. parflex nylon with a minimum wall thickness of 0.035 inch. The air supply should be between 10 and 30 psi, at 3 to 20 cubic feet per minute.

NOTE

The length of the tubing run affects the diameter of tubing required to deliver the proper air flow at the detector. Increase tubing diameter as needed to ensure adequate air flow.

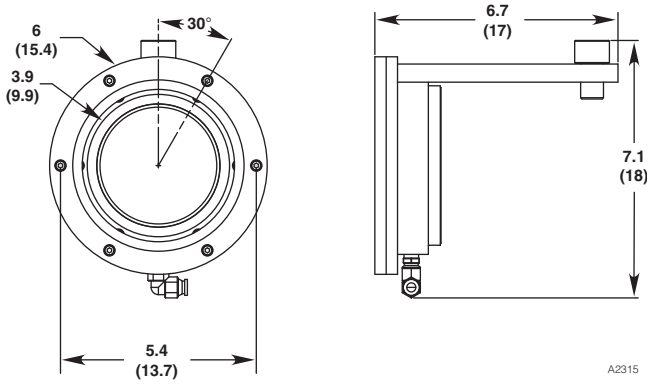


Figure 1—Dimensions of Q1118 in Inches (Centimeters)

INSTALLATION PROCEDURE

Duct Mount Installation

NOTE

The use of flexible conduit is required to allow easy removal of the detector for maintenance purposes.

1. Using Figure 3 as a template, cut out the mounting holes in the duct or wall.

2. Mount the air shield to the duct or wall. See Figure 4. A rubber or neoprene gasket (not provided) can be placed between the air shield and mounting surface if needed.

3. Prior to installing the air shield, clean the detector viewing windows and **oį** plate using the procedure described in the “Maintenance” section of the detector instruction manual.

4. Insert the detector into the air shield.

5. Tighten the retaining bolt to hold the assembly securely in place.

6. Attach the air supply to the air shield.

7. Apply power to the detection system and turn on the air supply.

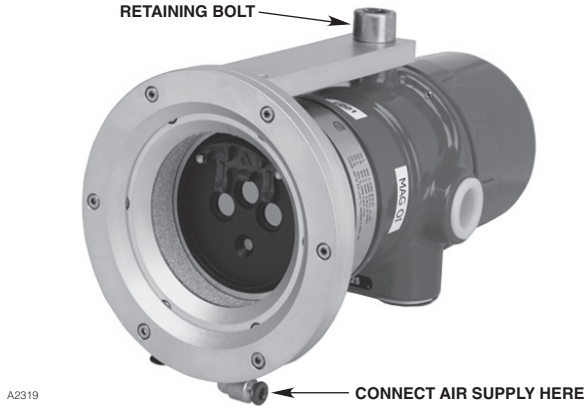


Figure 2—Q1118 Air Shield Attached to X-Series Detector

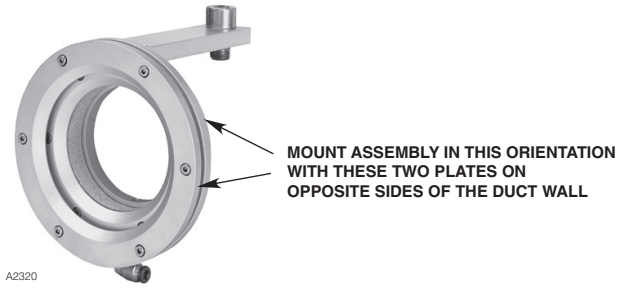


Figure 4—Duct Mount Installation

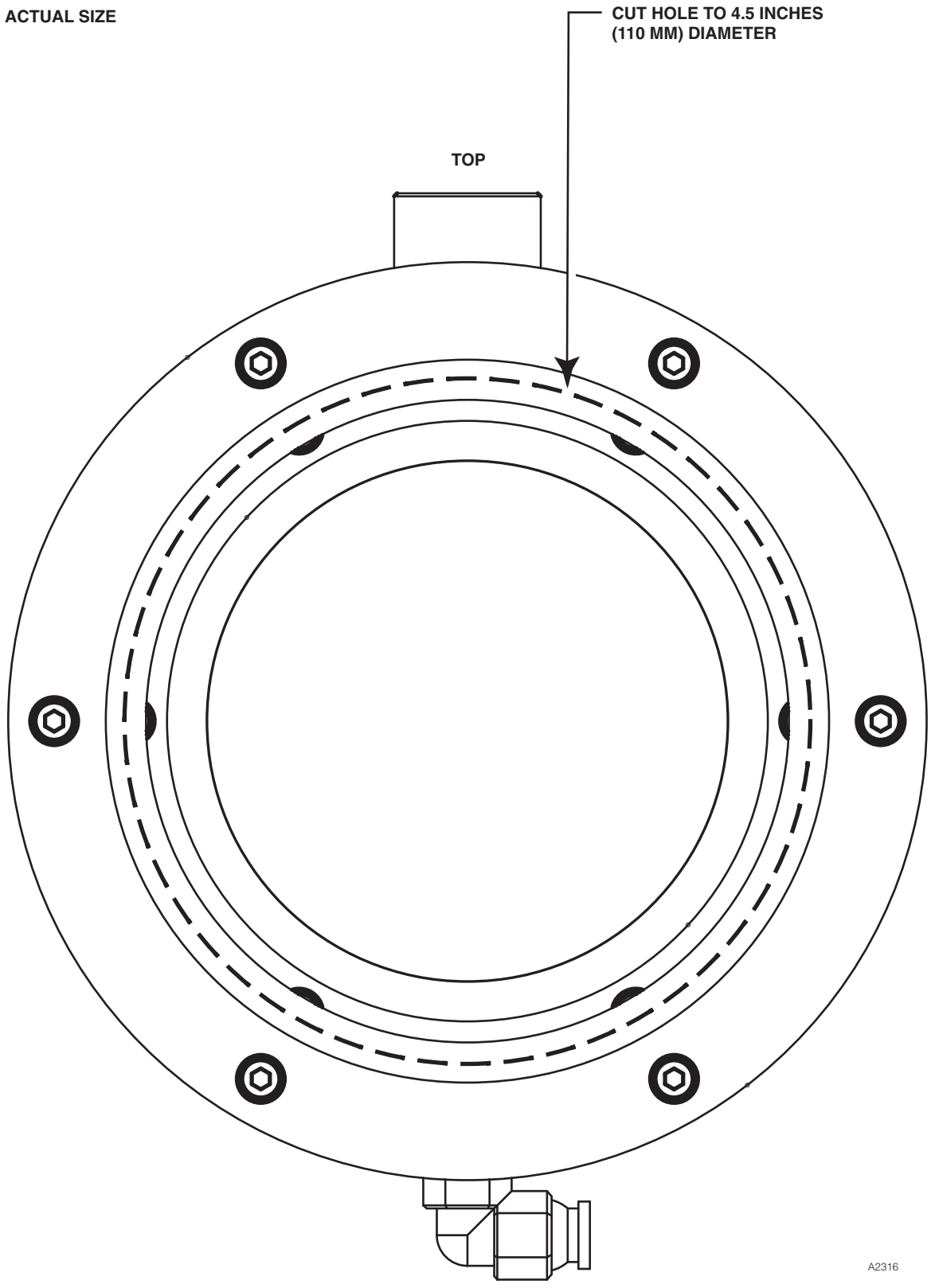


Figure 3—Template for Duct Mount Installation

MAINTENANCE

Air Shield

No routine maintenance is required. However, as contaminants accumulate on the sintered metal diffuser ring over time, the effectiveness of the air shield will be reduced.

When an accumulation of contaminants causes a reduction in the effectiveness of the air shield, it should be cleaned (if possible) or replaced. To replace the ring, remove the gasket and unscrew the retainer from the inside of the air shield. Replace the diffuser ring and reassemble the air shield.

Recommended Cleaning Procedure for Detector Windows and oi Plate

If the detector indicates an **oi** fault, the detector windows and **oi** plate must be cleaned. The following procedure is recommended for cleaning the detector viewing windows and **oi** plate:

1. Secure output loads (or place the controller/panel in the TEST or BYPASS mode).
2. Remove the air shield assembly from the detector.
3. Remove the **oi** plate from the detector.
4. Thoroughly clean the detector viewing windows with a clean cloth and Det-Tronics window cleaner.

NOTE

If paint overspray or similar contaminants are present in the environment, the use of solvents may be required to clean the detector viewing windows. After cleaning the viewing windows with a solvent, always use Det-Tronics window cleaner and a clean cloth to remove any solvent or other residue.

5. Clean the **oi** plate. If the reflective surfaces cannot be restored, the plate must be replaced. It is essential for the plate to be highly reflective to ensure proper operation of the **oi** system.
6. Re-install the **oi** plate.
7. Re-install the air shield.
8. Return the system to normal operation.

ORDERING INFORMATION

When ordering, please specify:

Part Number	Description
007818-001	Q1118 Air Shield - Aluminum
007818-002	Q1118 Air Shield - Stainless Steel
001680-001	Window cleaner

For assistance in ordering a system to meet the needs of a specific application, please contact:

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