

Model ASV-1 Automatic Shut-Off Valve Trim Component For Model DV-5 Deluge Valve Used In Deluge and Preaction Systems

General Description

The Model ASV-1 Automatic Shut-Off Valve (Ref. Figure 1) is intended for use with the Model DV-5 Deluge Valve in deluge and preaction systems. Provided as part of the DV-5 Valve trim arrangements, it is installed in the diaphragm chamber supply connections. When properly installed, it is intended to prevent inadvertent resetting of the DV-5 Valve after the DV-5 Valve initial operation.

WARNING

The Model ASV-1 Automatic Shut-Off Valve described herein must be installed and maintained in compliance with this document, as well as with the applicable standards of the National Fire Protection Association, in addition to the standards of any other authorities having jurisdiction. Failure to do so may impair the integrity of this device.

The owner is responsible for maintaining his fire protection system and devices in proper operating condition. The installing contractor or sprinkler manufacturer should be contacted relative to any questions.

Technical Data

Approvals

UL and C-UL Listed, as well as FM Approved, as a valve trim component for the Model DV-5 Deluge Valve.

Maximum Working Water Pressure
250 psi (17,2 bar).

Assembly

Brass body, cover, and center seat per UNS C36000, Type 316 stainless steel spring, and Nylon fabric reinforced, natural rubber diaphragm per ASTM D2000.

Operation

When the ASV-1 Automatic Shut-Off Valve is in its open position (Ref. Figure 2A) it permits water flow from its inlet to its outlet so that the Diaphragm Chamber of the DV-5 Valve can be pressurized and remain pressurized while the DV-5 Valve is in its set position. The 1/8 inch (3,2 mm) diameter orifice in the ASV-1 flow path restricts the make-up flow to the DV-5 Diaphragm Chamber so that when an actuation device releases water pressure from the DV-5 Diaphragm Chamber the Diaphragm Chamber can then become depressurized and the DV-5 Valve can then open.

Upon operation of the DV-5 Valve, the piping downstream of the DV-5 Valve becomes pressurized. The Pilot Chamber of the ASV-1 is then pressurized via its trim connection to the downstream side of the DV-5 Valve. Pressurization of the Pilot Chamber closes the ASV-1 (Ref. Figure 2B). After closing of the ASV-1, make-up pressure to the Diaphragm Chamber of the DV-5 Valve cannot occur. Even if the actuation device that originally released water from the Diaphragm Chamber were to close, the ASV-1 prevents the DV-5 Valve from inadvertently resetting after its initial opening.

Installation

Refer to the applicable technical data sheets describing the various options for installing the Model DV-5 Deluge Valve (i.e., deluge and preaction systems utilizing the Model DV-5 Deluge Valve).



Setting Procedure

The Model ASV-1 Automatic Shut-Off Valve automatically resets after the system piping downstream of the Model DV-5 Deluge Valve is drained and returned to its normal 0 psi gauge pressure.

Care and Maintenance

The following inspection procedure must be performed as indicated, in addition to any specific requirements of the NFPA, and any impairment must be immediately corrected.

The owner is responsible for the inspection, testing, and maintenance of their fire protection system and devices in compliance with this document, as well as with the applicable standards of the National Fire Protection Association (e.g., NFPA 25), in addition to the standards of any authority having jurisdiction. The installing contractor or product manufacturer

VALVE PARTS		
NO.	DESCRIPTION	QTY. KIT
1	Body	1 N/R
2	Cover	1 N/R
3	Spring	1 N/R
4	Diaphragm/Center Seat	1 N/R

N/R = Not Replaceable

**FIGURE 1
MODEL ASV-1 AUTOMATIC SHUT-OFF VALVE
— ASSEMBLY —**

turer should be contacted relative to any questions.

It is recommended that automatic sprinkler systems be inspected, tested, and maintained by a qualified Inspection Service.

NOTES

No attempt is to be made to repair an impaired Model ASV-1 Automatic Shut-Off Valve. The complete assembly must be replaced if there is indication of malfunction.

Before closing a fire protection system control valve for inspection or maintenance work on the fire protection system that it controls, permission to shut down the effected fire protection system must first be obtained from the proper authorities and all personnel who may be affected by this action must be notified.

After placing a fire protection system in service, notify the proper authorities and advise those responsible for monitoring proprietary and/or central station alarms.

**FIGURE 2A
OPEN POSITION**

**FIGURE 2B
CLOSED POSITION**

**FIGURE 2
MODEL ASV-1 AUTOMATIC SHUT-OFF VALVE
— OPERATION —**

INSPECTION PROCEDURE

The Model ASV-1 Automatic Shut-Off Valve must be inspected quarterly in accordance with the following instructions, and any impairment must be corrected by replacing the ASV-1.

Step 1. During the quarterly test of the actuation devices, verify that the ASV-1 has operated correctly as evidenced by the cease of waterflow from the actuating device to drain.

Limited Warranty

Products manufactured by Tyco Fire & Building Products (TFBP) are warranted solely to the original Buyer for ten (10) years against defects in mate-

rial and workmanship when paid for and properly installed and maintained under normal use and service. This warranty will expire ten (10) years from date of shipment by TFBP. No warranty is given for products or components manufactured by companies not affiliated by ownership with TFBP or for products and components which have been subject to misuse, improper installation, corrosion, or which have not been installed, maintained, modified or repaired in accordance with applicable Standards of the National Fire Protection Association, and/or the standards of any other Authorities Having Jurisdiction. Materials found by TFBP to be defective shall be either repaired or replaced, at TFBP's sole option. TFBP neither assumes, nor authorizes any person to assume for it, any other obligation in connection with the sale of products or parts of products. TFBP shall not be responsible for sprinkler system design errors or inaccurate or incomplete information supplied by Buyer or Buyer's representatives.

In no event shall TFBP be liable, in contract, tort, strict liability or under any other legal theory, for incidental, indirect, special or consequential damages, including but not limited to labor charges, regardless of whether TFBP was informed about the possibility of such damages, and in no event shall TFBP's liability exceed an amount equal to the sales price.

The foregoing warranty is made in lieu of any and all other warranties, express or implied, including warranties of merchantability and fitness for a particular purpose.

This limited warranty sets forth the exclusive remedy for claims based on failure of or defect in products, materials or components, whether the claim is made in contract, tort, strict liability or any other legal theory.

This warranty will apply to the full extent permitted by law. The invalidity, in whole or part, of any portion of this warranty will not affect the remainder.

Ordering Information

Orders for the ASV-1 must include the description and Part Number (P/N).

ASV-1:
Specify: Model ASV-1 Automatic Shut-Off Valve, P/N 92-343-1-021.