

Model ASV-1 Automatic Shut-Off Valve Trim Component for 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 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.

NOTICE

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 (NFPA), 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 their fire protection system and devices in proper operating condition. Contact the installing contractor or product manufacturer with any questions.

Technical Data

Approvals

(As a valve trim component for the DV-5 Deluge Valve)
UL and C-UL Listed
FM Approved

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

Assembly

Brass body, cover, and center seat per UNS C36000 or Stainless Steel body, cover, and center seat per UNS S31600

Type 316 Stainless Steel spring

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 DV-5 Deluge Valve (i.e., deluge and preaction systems utilizing the DV-5 Deluge Valve).

Setting Procedure

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

VALVE PARTS			
NO.	DESCRIPTION	QTY.	P/N
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

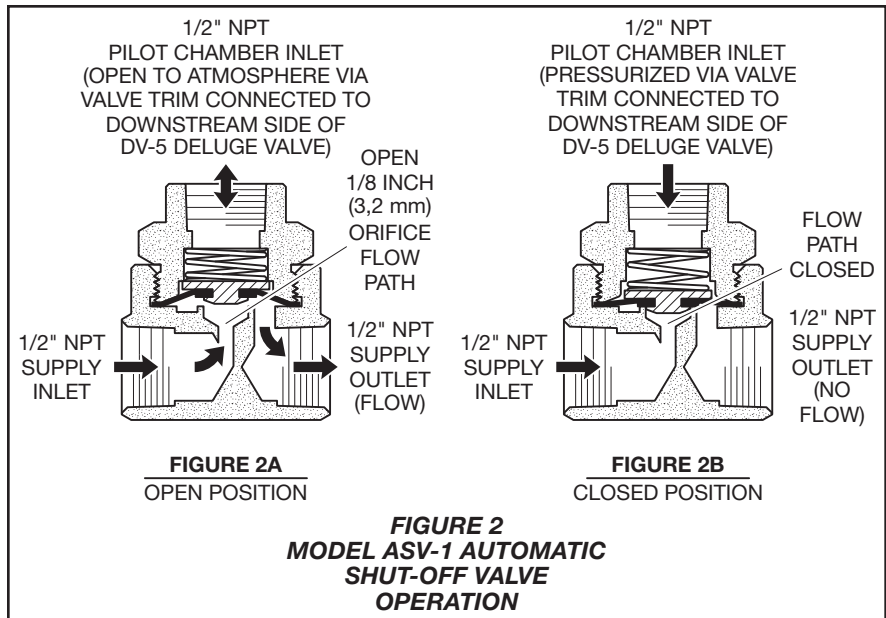
FIGURE 1
MODEL ASV-1 AUTOMATIC SHUT-OFF VALVE ASSEMBLY

Care and Maintenance

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

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.

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. Contact the installing contractor or product manufacturer with any questions.

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

Note: 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.

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

Inspection Procedure

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

Step 1. During the annual operating tests procedure of the DV-5 Deluge and Preaction Valve, verify that the ASV-1 has operated correctly as evidenced by the cease of waterflow from the actuating device to drain.

Limited Warranty

For warranty terms and conditions, visit www.tyco-fire.com.

Ordering Procedure

Contact your local distributor for availability. When placing an order, indicate the full product name and Part Number (P/N).

ASV-1
 Specify:

Model ASV-1 Automatic Shut-Off Valve, Brass Body, P/N 92-343-1-021

Model ASV-1 Automatic Shut-Off Valve, Stainless Steel Body, P/N 92-343-4-021