

Model FSV-1 Fail-Safe Valve Trim Component for DV-5 Deluge Valve Used in Deluge and Preaction Systems

General Description

The Model FSV-1 Fail-Safe Valve (Ref. Figure 1) is intended for use with the DV-5 Deluge Valve in certain types of trim arrangements for deluge and preaction systems. Provided as part of specific DV-5 Valve trim arrangements, it is installed adjacent to the releasing devices (dry pilot actuator, solenoid valve, etc.). When properly installed, it is intended to prevent inadvertent resetting of the DV-5 Valve after initial operation of the DV-5 Valve.

NOTICE

The Model FSV-1 Fail-Safe 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 performance 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

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

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

Assembly

Body Bronze
Cover Bronze
Elastomer Water Seal Buna-N
Diaphragm. . . . Nylon-reinforced Natural Rubber



IMPORTANT

Refer to Technical Data Sheet TFP2300 for warnings pertaining to regulatory and health information.

Operation

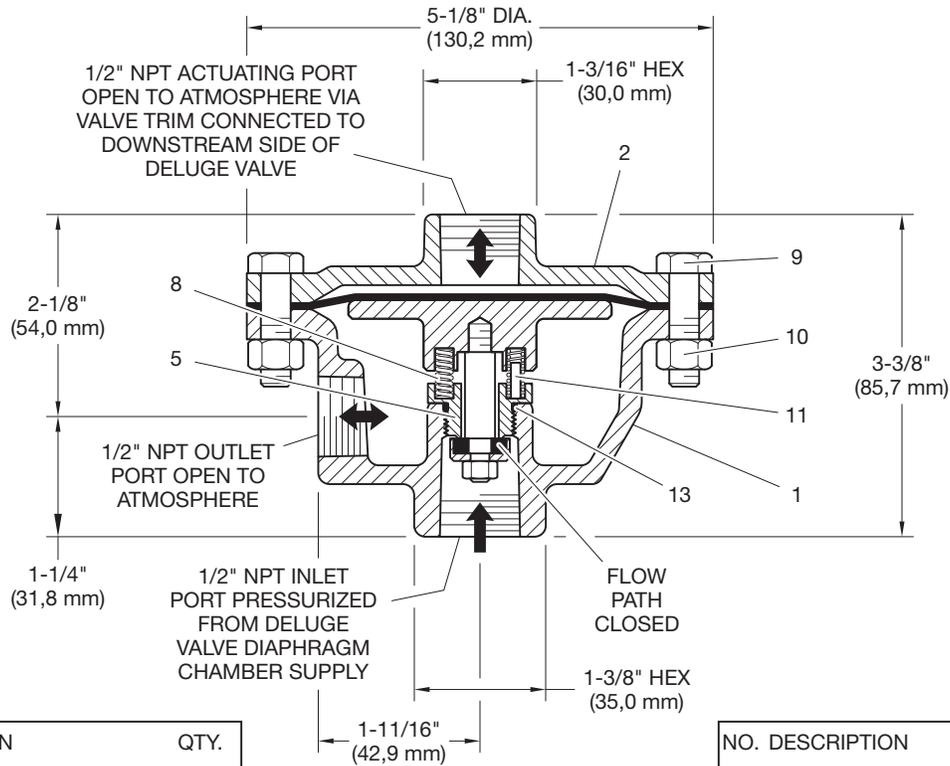
When the FSV-1 Fail-Safe Valve is in its closed position (Ref. Figure 1), it retains water pressure in the Diaphragm Chamber of the DV-5 Valve when the DV-5 is set for service. Upon operation of the DV-5 Valve, the piping downstream of the DV-5 Valve becomes pressurized. The Pilot Chamber of the FSV-1 is then pressurized via its trim connection to the downstream side of the DV-5 Valve. Pressurization of the Pilot Chamber opens the FSV-1 (Ref. Figure 1). After opening of the FSV-1, make-up pressure to the Diaphragm Chamber of the DV-5 Valve cannot occur. Even if the releasing device that originally released water from the Diaphragm Chamber were to close, the FSV-1 prevents the DV-5 Valve from inadvertently resetting after its initial opening. Upon operation, the FSV-1 will vent the DV-5 Diaphragm Chamber to atmosphere quicker than it can be repressurized through the 1/8 inch (3,2 mm) restriction in the diaphragm supply connection to the DV-5.

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 FSV-1 Fail-Safe 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.



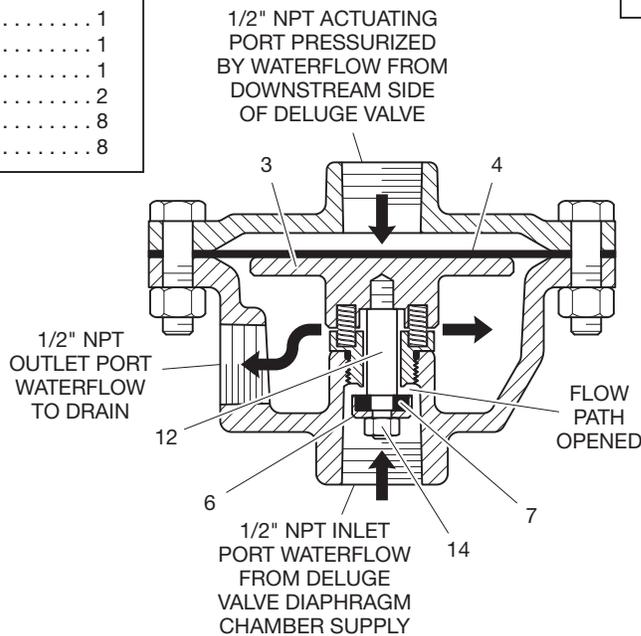
SET CONDITION

NO.	DESCRIPTION	QTY.
1	Valve Body	1
2	Valve Cover	1
3	Diaphragm Plate	1
4	Diaphragm	1
5	Valve Seat Ring	1
6	Valve Disc Retainer	1
7	Valve Disc	1
8	Spring	2
9	Hex Screw, M8 x 25	8
10	Hex Nut, M8	8

NO.	DESCRIPTION	QTY.
11	Spring Lead	2
12	Valve Shaft	1
13	O-Ring	1
14	Hex Nut, M5	1

NOTES:

1. Unit is not field serviceable, no replacement parts are available.



ACTUATED CONDITION

FIGURE 1
MODEL FSV-1 FAIL-SAFE VALVE
ASSEMBLY AND OPERATION

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.

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 affected 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 in accordance with local requirements and/or national codes.

No attempt is to be made to repair an impaired Model FSV-1 Fail-Safe 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 FSV-1 Fail-Safe Valve must be inspected quarterly in accordance with the following instructions, and any impairment must be corrected by replacing the FSV-1:

Step 1. When in the set position there should not be any water leakage from the outlet connection to drain.

Step 2. During the quarterly test of the actuation devices, verify that the FSV-1 has operated correctly as evidenced by a continuous waterflow from its outlet 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).

FSV-1

Specify: Model FSV-1 Fail-Safe Valve, P/N 52-343-1-001