

## Model AD-1 Automatic Drain Valve Trim Component for Dry Pipe, Deluge, and Preaction Valves

### General Description

The TYCO Model AD-1 Automatic Drain Valve is designed for use with TFSDP Dry Pipe, Deluge, and Preaction Valves. Provided as a trim component for these valves, the Model AD-1 Automatic Drain Valve is used to automatically drain the normally dry alarm lines. In operation, the Model AD-1 Drain Valve is normally open to atmosphere to provide a visual indication of properly set water and/or air seats within the dry pipe, deluge, or preaction valve.

The Model AD-1 Automatic Drain Valve is a direct replacement for the Central Model AD, Gem Model F793, and Star Model S410 drain valves.

#### NOTICE

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

*Owners are responsible for maintaining their 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

The Model AD-1 Automatic Drain Valve forms a part of the overall approvals given in the applicable technical data sheets for the TFSDP Dry Pipe, Deluge, or Preaction Valves.

**Maximum Pressure**  
250 psi (17,2 bar)

#### Assembly

Body . . . . . Bronze  
Inlet connection . . . Galvanized steel  
Ball . . . . . Brass or  
Stainless Steel

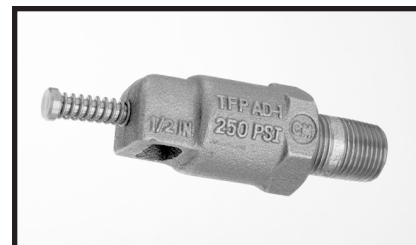
### Operation

The Model AD-1 Automatic Drain Valve is normally open to atmosphere. In the open position, it maintains the alarm line trim of dry pipe, deluge, or preaction valves at 0 psig until the system operates. When the Model AD-1 Automatic Drain Valve is in the normal open position, this valve provides a visual indication that water and/or air seats within the dry pipe, deluge, or preaction valve are properly set. Leakage or discharge from the Model AD-1 Automatic Drain Valve provides an indication of a problem requiring correction within the dry pipe, preaction, or deluge valve.

Upon system operation and flow of water through the alarm trim to the alarm devices, the Model AD-1 Automatic Drain Valve automatically closes upon increasing flow between 2 to 10 GPM (8 to 38 LPM), which will then divert waterflow pressure to the alarm devices such as a pressure alarm switch or water motor alarm. When the Model AD-1 Automatic Drain Valve is closed and pressurized, a small leakage past the ball seat is normal.

After system operation and upon draining the system, the Model AD-1 Automatic Drain Valve automatically opens at a pressure between 0.5 to 2.0 psig (0,03 to 0,14 bar).

The plunger on the Model AD-1 Automatic Drain Valve can be used to manually check that the Model AD-1 Automatic Drain Valve is in its normally open position by pushing in the plunger and assuring that the ball has not been inadvertently seated.



### Installation

The Model AD-1 Automatic Drain Valve is provided as a trim component for TYCO Dry Pipe, Deluge, or Preaction Valves. The Model AD-1 Automatic Drain Valve must be installed in accordance with the specific instructions provided with TYCO Dry Pipe, Deluge, or Preaction Valve technical data sheets.

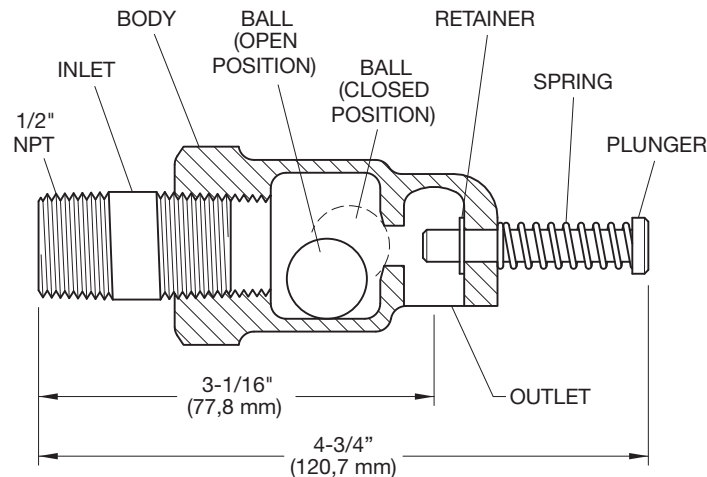
### Care and Maintenance

The TYCO Model AD-1 Automatic Drain Valve must be inspected in accordance with instructions provided with the TYCO Dry Pipe, Deluge, or Preaction Valve technical data sheets, in addition to any specific requirements of the NFPA. Any impairment must be immediately corrected.

#### NOTICE

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

*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 1**  
**MODEL AD-1 AUTOMATIC DRAIN VALVE**  
**—ASSEMBLY—**

Responsibility lies with the owner 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 (for example, NFPA 25), in addition to the standards of any authority having jurisdiction. Contact the installing contractor or product manufacturer regarding any questions.

Automatic sprinkler systems are recommended to be inspected, tested, and maintained by a qualified Inspection Service in accordance with local requirements and/or national codes and standards.

## Limited Warranty

Products manufactured by Tyco Fire Suppression & Building Products (TFSBP) are warranted solely to the original Buyer for ten (10) years against defects in material 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 TFSBP. No warranty is given for products or components manufactured by companies not affiliated by ownership with TFSBP 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 TFSBP to be defective shall be either repaired or replaced, at TFSBP's sole option. TFSBP neither assumes, nor authorizes any person to assume for it, any other obligation in connection with the sale of products or parts of products. TFSBP 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 TFSBP 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 TFSBP was informed about the possibility of such damages, and in no event shall TFSBP'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

The TYCO Model AD-1 Automatic Drain Valve is provided as a trim component for TYCO Dry Pipe, Deluge, or Preaction Valves. Contact your local distributor for availability.

Orders for replacement Model AD-1 Automatic Drain Valves must include a full description and Part Number (P/N).

### Black Steel Inlet

Specify: Model AD-1 Automatic Drain Valve with black steel inlet, P/N 52-793-1-004.

### Galvanized Steel Inlet

Specify: Model AD-1 Automatic Drain Valve with galvanized steel inlet, P/N 52-793-2-004.

### Brass Inlet

Specify: Model AD-1 Automatic Drain Valve with brass inlet, P/N 52-793-3-004.