Reliable®

Model DDV Diaphragm Deluge Valve with Remote Resetting Trims

(UL Listed, FM Approved)

Product Features

- Valve can be activated and reset remotely
- Pressure regulating trim option allows up to 400 psi (27.6 bar) inlet pressure
- Compact trim with all connections to valve body
- Suitable for horizontal or vertical installation

Product Description

The Model DDV deluge valve is a diaphragm-type deluge valve available in1-1/2" (40mm), 2" (50mm), 2-1/2" (65mm), 76mm, 3" (80mm), 4" (100mm), 6" (150mm), 165mm, and 8" (200mm) nominal sizes with multiple end configurations (see Table A).

The valve diaphragm seals against a seat machined in the valve body. Water pressure in the chamber between the diaphragm and the cover presses the diaphragm against the seat to prevent water flow through the valve. The release of water pressure from the chamber allows the diaphragm to deform away from the seat allowing water to flow through the valve.

Maintenance of the valve is simplified because all trim is connected to the valve body, and the diaphragm can be removed without disassembling the trim.

Trim options allow for either remote-resetting (on/off) operation or remote-resetting (on/off) operation with pressure regulation. In both configurations, water flows through the Model DDV valve when the solenoid trim is open. When the solenoid is closed, the Model DDV valve resets and water flow is stopped. The Model DDV is controlled by a solenoid valve in the trim. For UL systems, the solenoid is normally closed and is energized open upon activation of the release control panel. Removal of power from the solenoid causes it to close. For FM systems, the solenoid is a latching impulse solenoid that is energized open upon activation of the release control panel. The latching solenoid requires a separate "pulse" of power from the release control panel in order to close.



Representative photo; actual assembly may differ

For Model DDV valves with pressure regulating trim, a pressure regulator included in the trim allows the Model DDV valve to regulate the water pressure downstream of the valve in accordance with the values in Table C.

Note: The 8" (200mm) Model DDV Valve is not available with pressure regulating trim.

Both trim options include 300 psi (20.7 bar) water pressure gauges for the incoming water supply and control chamber; in addition, the remote resetting pressure regulating trim includes a 300 psi (20.7 bar) water pressure gauge for adjusting the outlet pressure. Optional 600 psi (41.4 bar) pressure gauges are available. Model DDV systems with groove end connections may be ordered with or without control valves (water supply valve and upper service valve). Control valves will be Reliable Model RBVG or REL363GT grooved end butterfly valves with integral tamper switches. Plugged outlets are provided for alarm devices which are ordered separately. For convenience, an optional alarm line test valve kit may be installed (see Figures 7 and 8).

End Configuration Options — **Table A**

GR x GR (ANSI/AWWA C606)	Class 150 FLG x FLG (ASME B16.5)	Class 300 FLG x FLG (ASME B16.5)	PN16 FLG x FLG (ISO 7005-2)	BS-E FLG x FLG (BS 10)	NPT THD x THD (ANSI/AMSE B1.20.1)	ISO 7/1 THD x THD
All Sizes	All Sizes (exc. 76 & 165mm)	All Sizes (exc. 76 & 165mm)	All Sizes (exc. 76 & 165mm)	All Sizes (exc. 76 & 165mm)	1-1/2", 2", 2-1/2", & 3" (40, 50, 65, & 80mm)	1-1/2", 2", 2-1/2", & 3" (40, 50, 65, & 80mm)

Note: Valves are intended to be installed on systems where the pressure does not exceed the working capabilities of the end configurations.

Technical Data: Remote Resetting Trim **Table B**

Valve Size	Maximum Flow gpm (L/min)	Valve Output Range psi (bar)	Maximum Rated Pressure psi (bar)	Approvals
1-1/2" (40mm), 2" (50mm), 2-1/2" (65mm), 76mm, 3" (80mm), 4" (100mm), 6" (150mm), 165mm, 8" (200mm)	Not Restricted	Not Regulated	175 (12.0)	UL
			300 (20.7)	UL
			300 (20.7)	FM

Note: Approvals vary by selection of solenoid release valve. See page 3.

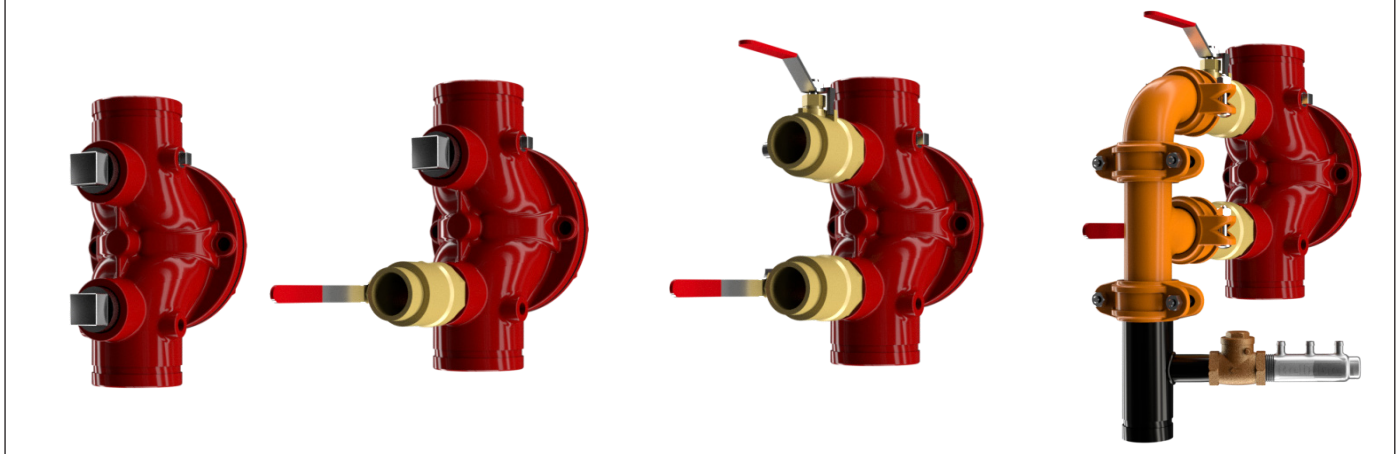
Technical Data: Remote Resetting Pressure Regulating Trim **Table C**

Valve Size	Maximum Flow gpm (L/min)	Valve Output Range psi (bar)	Maximum Rated Pressure psi (bar)	Approvals
1-1/2" (40mm)	225 (1023)	UL 100-200 (6.9-13.8) FM 50 – 210 (3.4 – 14.5)	400 (27.6)	UL (Parker Solenoid) FM (Burkert Solenoid)
2" (50mm)	250 (1137)			
2-1/2" (65mm), 76mm, & 3" (80mm)	400 (1514)			
4" (100mm)	1340 (5072)			
6" (150mm) & 165mm	3000 (11350)			

Notes for Pressure Regulating Trim:

1. Valves are intended to be installed on systems where the pressure does not exceed the working capabilities of the end configurations.
2. For cULus: Where inlet pressure is between 150 and 400 psi (10.3 and 27.6 bar), a regulated outlet pressure of 100 to 200 psi (6.9 to 13.8 bar) can be maintained within +/- 10% under flowing conditions for inlet pressures that are at least 50 psi (3.4 bar) greater than the outlet set pressure.
3. For FM Global: Where inlet pressure is between 85 and 300 psi (5.9 and 20.7 bar), a regulated outlet pressure of 50 to 210 psi (3.4 to 14.5 bar) can be maintained under flowing conditions with inlet pressures that are at least 35 psi (2.4 bar) greater than the outlet set pressure. Where inlet pressure is more than 300 psi (20.7 bar) and up to 400 psi (27.6 bar), a regulated outlet pressure of 50 to 210 psi (3.4 to 14.5 bar) can be maintained under flowing conditions with inlet pressures that are at least 50 psi (3.4 bar) greater than the outlet set pressure.

Drain Trim Options **Figure 1**



No Drain Valves **Single Drain Valve** **Two Drain Valves** **Full Drain Trim**

Note: 2" grooved version shown; 1-1/4"drain (2-1/2", 76mm, and 3" valves) and 1" drain (1-1/2" and 2" valves) will be threaded.

Model DDV Deluge Valve with Remote Resetting (On/Off) Trim

Technical Specifications
Pressure Rating:
See actuator limitations

Material Specifications
Body & Cover: Ductile Iron with Red Oxide Epoxy coating and Urethane external coating
Diaphragm: Fabric reinforced EPDM

End Connections
See Table A, page 2

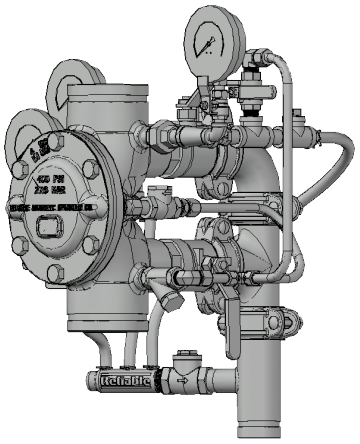
Installation Orientation
Not Restricted

Drain Trim Options
See Figure 1, page 2

Actuator (UL)
Parker Hannifin
73218BN4UNLVNOC111C2 [175 psi (12.1 bar)]
(Alternate) Parker Hannifin
73212BN4TNLVNOC322C2 [300 psi (20.7 bar)]

Actuator (FM)
Burkert Impulse Solenoid Type 5282
[300 psi (20.7 bar)]
PN 6871020250
www.burkert.com/en/type/5282
Protection Class: IP65 with cable plug accessory to DIN EN 175301-803 Form A

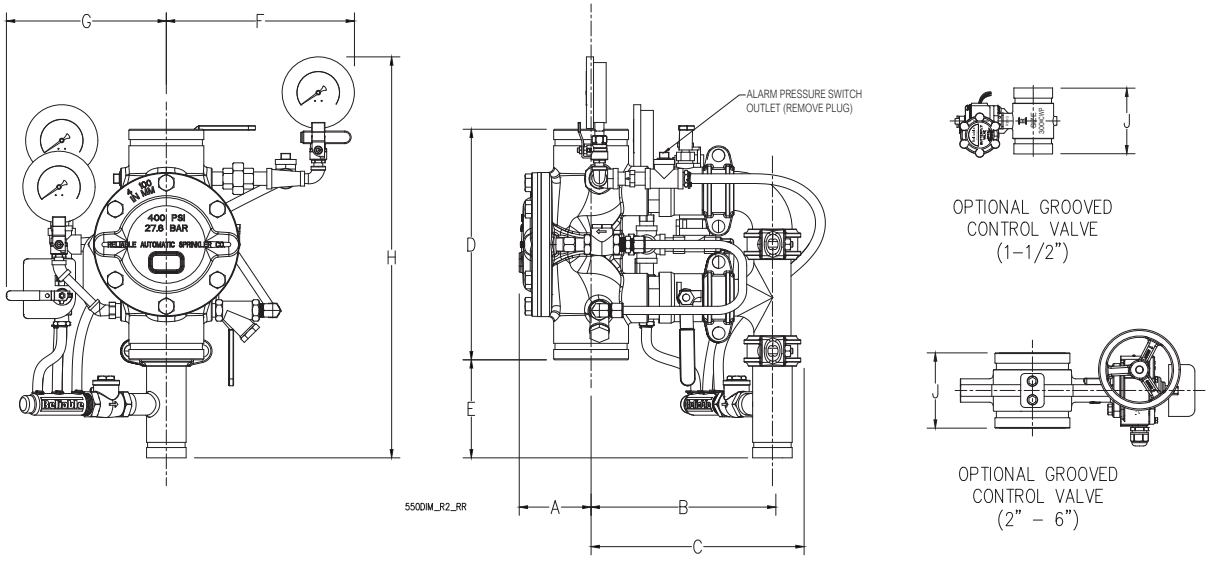
Approvals
UL Listed
FM Approved



(Shown with option alarm test line)

Model DDV Deluge Valve with Remote Resetting (On/Off) Trim Dimensions

Figure 2



Note: 2" grooved drain shown for 4" and larger valves. Drain on 2-1/2", 3", and 76mm valves is 1-1/4" threaded with 1-1/4" tee provided for connection of drain piping. Drain on 1-1/2" and 2" valves is 3/4" threaded with 1" tee provided for connection of drain piping.

Model DDV Dimensions with Remote Resetting Trim- in. (mm)

Table D

Valve Size	A	B	C	D	E	F	G	H	J
1-1/2" (40mm)	3 (76)	9-1/4 (235)	10 (254)	8 (203)	2-1/2 (64)	10-1/8 (257)	8-3/8 (213)	15-5/8 (397)	4 (102)
2" (50mm)	3 (76)	9-1/4 (235)	10 (254)	8 (203)	2-1/2 (64)	10-1/8 (257)	8-3/8 (213)	15-5/8 (397)	3-7/8 (98)
2-1/2 (65mm), 3 (80mm), & 76mm	3-1/2 (89)	11-3/4 (298)	12-1/2 (318)	11 (279)	3-1/8 (76)	10-7/8 (276)	8-3/4 (222)	18-1/4 (464)	3-7/8 (98)
4 (100mm)	4-3/8 (111)	11-1/4 (285)	12-7/8 (327)	14 (356)	6 (152)	11-3/8 (289)	9-1/2 (241)	24-3/8 (619)	4-9/16 (116)
6 (150mm), 165mm	6-1/2 (165)	11-3/4 (298)	13-3/8 (340)	18 (457)	4 (102)	12-7/8 (327)	11-1/2 (292)	24-3/8 (619)	5-7/8 (149)
8" (200mm)	9-1/8 (232)	12-5/8 (321)	14-1/4 (362)	22-1/2 (572)	1-3/4 (44)	14-3/8 (365)	13 (330)	24-3/8 (619)	5-1/4 (134)

Note: Control Valves not available with 76mm and 165mm valves. Dimension J not applicable.

General Operation

Under normal conditions the solenoid valve is closed maintaining hydraulic pressure in the diaphragm chamber. The captured hydraulic pressure holds the diaphragm against the valve seat. When the solenoid valve is opened by an electrical signal, or the Manual Emergency Release Valve on the trim is opened, pressure is released from the diaphragm chamber allowing water to flow through the Model DDV valve.

To remotely reset the Model DDV valve, the status of the solenoid valve must be changed from open to closed.

For UL Listed systems, the solenoid valve is normally closed and must be powered to open and remain open. Removal of power to the solenoid results in closing of the Model DDV valve.

For FM Approved systems, the solenoid is normally latched closed, and is latched into the open position upon activation of the release control panel. The solenoid must receive a separate "pulse" of power from the release control panel to return to the latched closed status.

Note: The system pressure gauge on the DDV valve provides an indication of the pressure within the system, but accuracy may be affected by turbulence across the diaphragm created during water flow. Where a more accurate measurement of residual pressure is required, a pressure gauge should be installed downstream of the DDV valve on a straight run of pipe of sufficient length to provide an accurate reading of residual pressure.

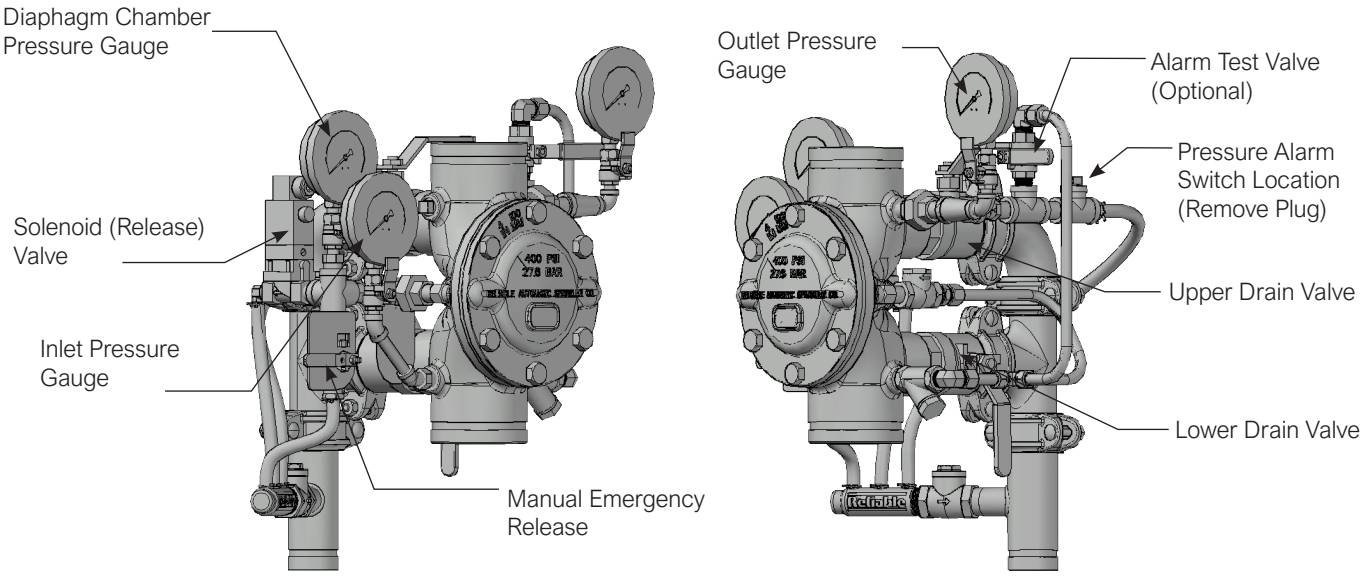
Setup Procedure

1. Ensure that the Manual Emergency Release Valve, Solenoid Valve, Lower Drain Valve, and Alarm Test Valve are closed.
2. Ensure that the Upper Drain Valve is open.
3. Partially open the Lower Drain Valve.
4. Slightly open the main water control valve.
5. Once water begins to flow through the Lower Drain Valve, slowly close Lower Drain Valve. Confirm water pressure on the Inlet Pressure Gauge.
6. Observe if water leaks through the Upper Drain Valve. If no leak occurs, the deluge valve diaphragm is sealed. Fully close the Upper Drain Valve.
7. Slowly open the main water control valve. Verify that the main water control valve is fully open and properly monitored.
8. Secure the handle of the Manual Emergency Release Valve in the closed position with the provided cable ties.
9. Fully reset fire alarm panel to clear any active signals.
10. Notify the proper authorities, building occupants, and those responsible for monitoring the system that the system has been placed into service.

Shutdown Procedure

1. Close the main water control valve.
2. Open the Upper Drain Valve and Lower Drain Valve to drain the system.
3. Open all auxiliary drain valves throughout the system, closing them when flow of water has stopped.
4. Inspect and replace any sections of the fire sprinkler system that may have been damaged due to fire.

Model DDV Deluge Valve with Remote Resetting (On/Off) Trim **Figure 3**



Model DDV Deluge Valve with Remote Resetting (On/Off) Pressure Regulating Trim

Technical Specifications
Pressure Rating:
400 psi (27.6 bar)
Pressure Output Range:
Reference Table C, page 2
Flow Output Range:
Reference Table C, page 2

Material Specifications
Body & Cover: Ductile Iron with Red Oxide Epoxy coating and Urethane external coating
Diaphragm: Fabric reinforced EPDM

End Connections
See Table A

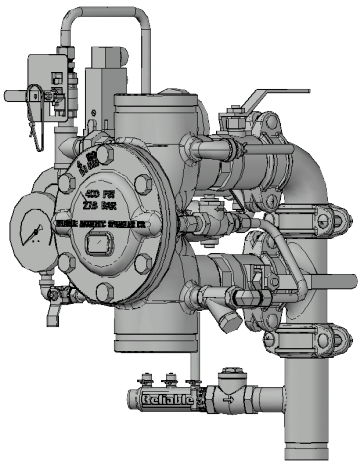
Installation Orientation
Not Restricted

Drain Trim Options
See Figure 1, page 2

Actuator (UL)
Parker Hannifin
73218BN4UNLVNOC111C2 [175 psi (12.1 bar)]
(Alternate) Parker Hannifin
73212BN4TNLVNOC322C2 [300 psi (20.7 bar)]

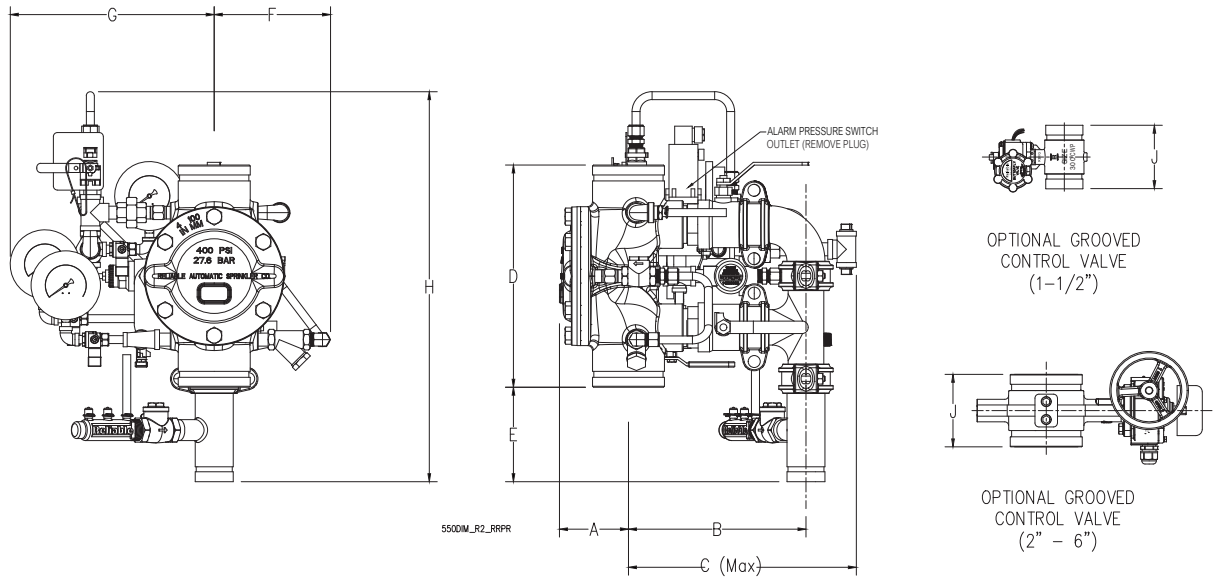
Actuator (FM)
Burkert Impulse Solenoid Type 5282
[300 psi (20.7 bar)]
PN 6871020250
www.burkert.com/en/type/5282
Protection Class: IP65 with cable plug accessory to DIN EN 175301-803 Form A

Approvals
UL Listed
FM Approved



Model DDV Deluge Valve with Remote Resetting (On/Off) Pressure Regulating Trim Dimensions

Figure 4



Note: 2" grooved drain shown for 4", 6" and 165mm valves. Drain on 2-1/2", 3", and 76mm valves is 1-1/4" threaded with 1-1/4" tee provided for connection of drain piping. Drain on 1-1/2" and 2" valves is 3/4" threaded with 1" tee provided for connection of drain piping.

Model DDV Dimensions with Remote Resetting Pressure Regulating Trim - in. (mm)

Table E

Valve Size	A	B	C	D	E	F	G	H	J
1-1/2" (40mm)	3 (76)	9-1/4 (235)	15-1/4 (387)	8 (203)	2-1/2 (64)	6 (152)	11-1/2 (192)	16-3/8 (416)	4 (102)
2" (50mm)	3 (76)	9-1/4 (235)	13-3/4 (349)	8 (203)	2-1/2 (64)	6 (152)	11-1/2 (192)	16-1/4 (413)	3-7/8 (98)
2-1/2 (65mm), 3 (80mm), & 76mm	3-1/2 (89)	11-3/4 (298)	13-3/8 (340)	11 (279)	3-1/8 (76)	7 (178)	12-3/4 (324)	18-3/4 (476)	3-7/8 (98)
4 (100mm)	4-3/8 (111)	11-1/4 (285)	14-1/4 (362)	14 (356)	6 (152)	7-1/4 (184)	12-3/4 (324)	24-5/8 (625)	4-9/16 (116)
6 (150mm), 165mm	6-1/2 (165)	11-3/4 (298)	13 (330)	18 (457)	4 (102)	9-1/4 (235)	15-3/4 (400)	24-5/8 (625)	5-7/8 (149)

Note: Control Valves not available with 76mm and 165mm valves. Dimension J not applicable.

General Operation

Under normal conditions the solenoid valve is closed maintaining hydraulic pressure in the diaphragm chamber. The captured hydraulic pressure holds the diaphragm against the valve seat. When the solenoid valve is opened by an electrical signal, or the Manual Emergency Release Valve on the trim is opened, pressure is reduced in the diaphragm chamber allowing water to flow through the Model DDV valve. The adjustable pilot valve on the trim decreases and increases pressure in the diaphragm chamber, thereby regulating the outlet pressure. To remotely reset the Model DDV valve, the status of the solenoid valve must be changed from open to closed by input of the proper signal from the release control system.

Note: The system pressure gauge on the DDV valve provides an indication of the pressure within the system, but accuracy may be affected by turbulence across the diaphragm created during water flow. Where a more accurate measurement of residual pressure is required, a pressure gauge should be installed downstream of the DDV valve on a straight run of pipe of sufficient length to provide an accurate reading of residual pressure.

Setup Procedure

1. Ensure that the Manual Emergency Release Valve, Solenoid Valve, and Lower Drain Valve are closed.
2. If present, verify that the Alarm Line Valve is closed.
3. Ensure that the Upper Drain Valve is open.
4. Partially open the Lower Drain Valve.
5. Slightly open the main valve controlling water supply.
6. Once water begins to flow through the Lower Drain Valve, slowly close Lower Drain Valve. Confirm water pressure on the lower system water pressure gauge.
7. Observe if water leaks through the Upper Drain Valve. If no leak occurs, the deluge valve diaphragm is sealed. Fully close the Upper Drain Valve.
8. Slowly open the Water Control Valve. Verify that the Water Control Valve is fully open and properly monitored.
9. Secure the handle of the Manual Emergency Release Valve in the closed position with the provided cable ties.
10. Fully reset fire alarm panel to clear any active signals.
11. Notify the proper authorities, building occupants, and those responsible for monitoring the system that the system has been placed into service.

Shutdown Procedure

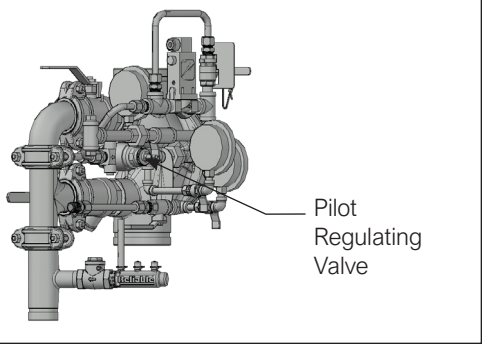
1. Close the main water control valve.
2. Open the Upper Drain Valve and Lower Drain Valve to drain the system.
3. Open all auxiliary drain valves throughout the system, closing them when flow of water has stopped.
4. Inspect and replace any sections of the fire sprinkler system that may have been damaged due to fire.

Pressure Adjustment (Reference Figure 5)

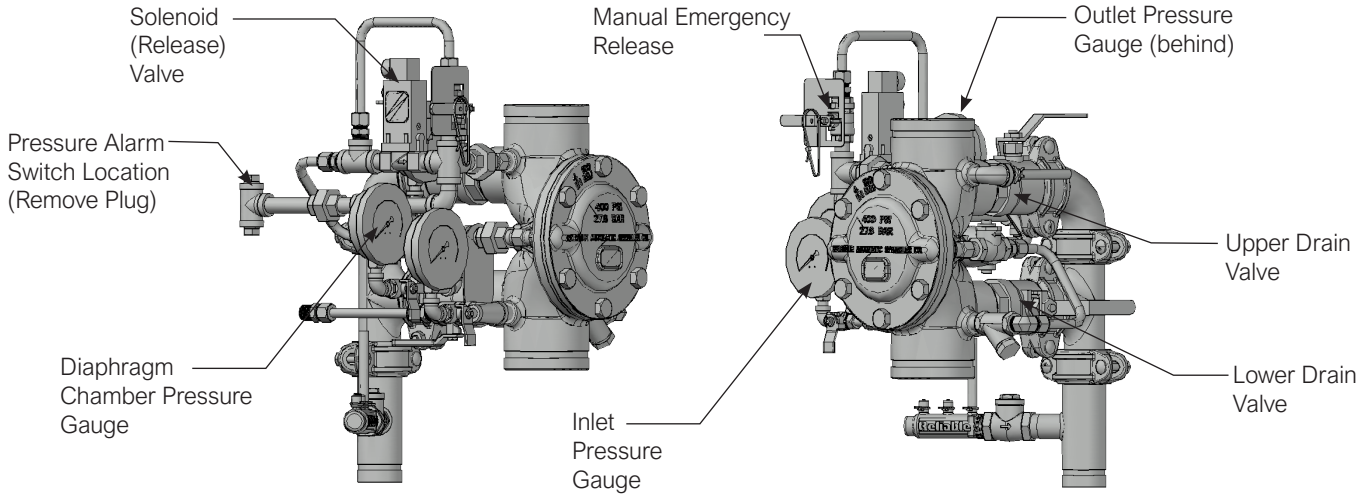
1. Loosen the lock nut on the adjustment screw.
2. Operate a manual or automatic release to open the Model DDV valve. **Note:** this will allow water to flow into the fire protection system.
3. Turn the adjustment screw clockwise to increase down stream pressure, or counterclockwise to decrease down stream pressure of the Model DDV valve.
4. Adjust in 1/2 turns and allow time for the valve to stabilize at the new set point.
5. When the desired outlet pressure is reached, securely tighten the locknut.
6. Shut down and drain the system.
7. Reset the system in accordance with the setup procedure.

Note: Pressure adjustment cannot be made without flowing water.

Pilot Regulating Valve Location **Figure 5**



Model DDV Deluge Valve with Remote Resetting (On/Off) Pressure Regulating Trim **Figure 6**

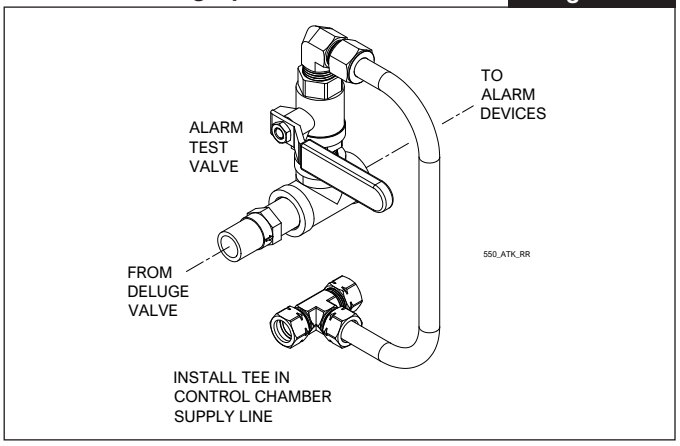


Model DDV Hydraulic Friction Loss Data — **Table F**

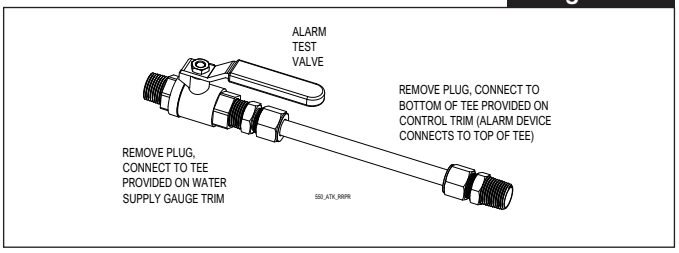
Valve Size	Cv Flow Coefficient gpm/(psi)$^{1/2}$	Kv Flow Coefficient m^3/h/(bar)$^{1/2}$	Approximate Equivalent Length ft (m) C= 120 Sch 40 Steel Pipe	Approximate Equivalent Length ft (m) C= 100 Sch 40 Steel Pipe
1-1/2" (40mm)	81.6	70	4.6 (1.4)	3.3 (1.0)
2" (50mm)	110.5	95	8.8 (2.7)	6.3 (1.9)
2-1/2" (65mm)	144	124	12.9 (3.9)	9.2 (2.8)
76mm, 3" (80mm)	182	157	24.1 (7.3)	17.2 (5.2)
4" (100mm)	393	339	28.6 (8.7)	20.4 (6.2)
6" (150mm), 165mm	815	703	52.2 (15.9)	37.2 (11.3)
8" (200mm)	1455	1254	59.7 (18.2)	42.6 (13.0)

Notes: The Cv flow coefficient (amount of flow to generate a 1 psi loss) was used to calculate the approximate equivalent length.

Remote Resetting Optional Alarm Test Kit — **Figure 7**



Remote Resetting Pressure Regulating Optional Alarm Test Kit — **Figure 8**



Installation

The Model DDV valve should be installed in accordance with NFPA 13, "Standard for the Installation of Sprinkler Systems," as well as the requirements of any authorities having jurisdiction. Failure to follow installation instructions and/or revisions to the trim arrangement of the valve may void the warranty and/or listing of the valve. Verify compatibility of the Model DDV valve materials with the water supply and the environment where the valve will be installed prior to installation. Do not apply lubricants, sealants, or other chemicals to the diaphragm or seat. The Model DDV valve must be installed in a location where the temperature is maintained at a minimum of 40°F (4°C) and the maximum temperature of the valve must not exceed 120°F (49°C). The Model DDV valve shall not be installed in direct sunlight. Heat tracing of the valve and trim is not permitted. The solenoid on the trim requires power to open and power to close.

Water flow through the Model DDV valve will stop upon closing of the solenoid. Design and installation of the detection and release system must be performed in accordance with applicable NFPA standards and the authority having jurisdiction. At least one electric manual release should be installed near the release control panel to facilitate commissioning and routine testing of the system. Drain should be piped to a location that will avoid damage to property and injury to personnel.

Maintenance

The owner is responsible for maintaining the fire protection system in proper operating condition. Any system maintenance or testing that involves placing a control valve or detection/control system out of service may eliminate the fire protection that is provided by the fire protection system.

The Reliable Model DDV valve and associated equipment shall periodically be given a thorough inspection and test. NFPA 25, "Inspection, Testing and Maintenance of Water Based Fire Protection Systems," provides minimum maintenance requirements. System components shall be tested, operated, cleaned, and inspected at least annually, and parts replaced as required.

Reliable recommends that the diaphragm be replaced every 10 years or more frequently if inspections identify wear warranting more frequent replacement.

Recommended torque for cover plate bolts is as follows:

- 1-1/2" (40 mm) & 2" (50 mm) = 30 (+/- 5) ft-lb
- 2-1/2" (65 mm), 76 mm, & 3" (80 mm) = 50 (+/- 5) ft-lb
- 4" (100 mm) = 70 (+/- 5) ft-lb
- 6" (150 mm) & 165 mm = 130 (+/- 5) ft-lb
- 8" (200MM) = 200 (+/- 5) ft-lb

Replacement Diagphragm

- 1-1/2" & 2" - PN 95277620
- 2-1/2", 76mm, & 3" - PN 95277630
- 4" - PN 95277640
- 6" & 165mm - PN 95277660
- 8" - PN 95277680

Ordering Information

Specify the following when ordering or use the part number generator in Figures 9 or 10 on the following page.

Valve Model
- DDV

End Configuration
- Grooved, flanged, or threaded (Ref. Table A)

Size
- 1-1/2" (40mm)
- 2" (50mm)
- 2-1/2" (65mm)
- 76mm
- 3" (80mm)
- 4" (100mm)
- 6" (150mm)
- 165mm
- 8" (200mm)

Operational Trim
- Remote Resetting (on/off)
- Remote Resetting (on/off) Pressure Regulating

Note: 8" (200mm) valve is not currently available with pressure regulating trim.

Control Valves (Note: for grooved DDV Only)
- No control valves
- Water supply (lower) control valve only
- Both water supply (lower) and service (upper) control valves

Note: Control valve option is not available for 76mm or 165mm systems.

Drain Trim (Reference Figure 1)
- No drain valves (plugged outlets)
- Lower drain valve only
- Upper and lower drain valves only
- Full drain trim

Alarm Test Trim (Ref. Figures 9 and 10)
When selected using the part number generator, the alarm test line will be fully assembled on the valve. When ordered separately:
- Remote Resetting Valves: PN 6501040001
- Remote Resetting Pressure Regulating Valves: PN 6501040002

Solenoid Valve
- Burkert Latching Solenoid, 300 psi rated (for FM systems)
- Skinner/Parker Non-latching Solenoid, 175 psi (for UL systems)
- Skinner/Parker Non-latching Solenoid, 300 psi (for UL systems)

Optional PS10-2 Alarm Pressure Switch (Ordered and shipped separately)
- PN 6990006382

Guarantee

For Reliable Automatic Sprinkler Co., Inc. guarantee, terms, and conditions, visit www.reliablesprinkler.com.

Model DDV Remote Resetting Trim Part Number **Figure 9**

6507 U V 3 X Y Z

End Connections U	Valve Size V	Control Valve[1] [2] X	Drains Y	Solenoid Valve Z
0 = Groove/Groove	0 = 1-1/2" (40mm) Valve	0 = W/O Control Valve	0 = W/ Drain Plugs, W/O Alarm Test	0 = FM System, Burkert Latching Solenoid
1 = Flange/Flange Class 150	2= 2" (50mm) Valve	1 = W/ Control Valve	1 = W/ 1 Drain Valve, W/O Alarm Test	1 = UL System, 175 psi Skinner Non-Latching Solenoid
2 = Flange/Flange Class 300	1 = 2-1/2" (65mm) Valve	3 = W/ 2 Control Valves	2 = W/ 2 Drain Valves, W/O Alarm Test	2 = UL System, 300 psi Skinner Non-Latching Solenoid
3 = Flange/Flange PN16	7 = 76mm Valve		3 = W/ Full Drain, W/O Alarm Test	
4 = Flange/Flange BS-E	3 = 3" (80mm) Valve		4 = W/ Drain Plugs, W/ Alarm Test	
5 = Thread/Thread NPT	4 = 4" (100mm) Valve		5 = 1 Drain Valve, W/ Alarm Test	
6 = Thread/Thread ISO 7/1	6 = 6" (150mm) Valve		6 = W/ 2 Drain Valves, W/ Alarm Test	
	5 = 165mm Valve		7 = W/ Full Drain, W/ Alarm Test	
	8 = 8" (200mm) Valve			

Notes:
1. Control valves not available for 76mm and 165mm systems. "X" must be 0 for 76mm and 165mm systems.
2. Control valves are available for grooved Model DDV only. Where end connection "U" is 1 through 6, control valve "X" must be "0".

Model DDV Remote Resetting Pressure Regulating Trim Part Number **Figure 10**

6507 U V 7 X Y Z

End Connections U	Valve Size V	Control Valve[1] [2] X	Drains Y	Solenoid Valve Z
0 = Groove/Groove	0 = 1-1/2" (40mm) Valve	0 = W/O Control Valve	0 = W/ Drain Plugs, W/O Alarm Test	0 = FM System, Burkert Latching Solenoid, 300 psi gauges
1 = Flange/Flange Class 150	2= 2" (50mm) Valve	1 = W/ Control Valve	1 = W/ 1 Drain Valve, W/O Alarm Test	1 = FM System, Burkert Latching Solenoid, 600 psi gauges
2 = Flange/Flange Class 300	1 = 2-1/2" (65mm) Valve	3 = W/ 2 Control Valves	2 = W/ 2 Drain Valves, W/O Alarm Test	2 = UL System, 175 psi Skinner Non-Latching Solenoid, 300 psi gauges
3 = Flange/Flange PN16	7 = 76mm Valve		3 = W/ Full Drain, W/O Alarm Test	3 = UL System, 175 psi Skinner Non-Latching Solenoid, 600 psi gauges
4 = Flange/Flange BS-E	3 = 3" (80mm) Valve		4 = W/ Drain Plugs, W/ Alarm Test	4 = UL System, 300 psi Skinner Non-Latching Solenoid, 300 psi gauges
5 = Thread/Thread NPT	4 = 4" (100mm) Valve		5 = 1 Drain Valve, W/ Alarm Test	5 = UL System, 300 psi Skinner Non-Latching Solenoid, 600 psi gauges
6 = Thread/Thread ISO 7/1	6 = 6" (150mm) Valve		6 = W/ 2 Drain Valves, W/ Alarm Test	
	5 = 165mm Valve		7 = W/ Full Drain, W/ Alarm Test	

Notes:
1. Control valves not available for 76mm and 165mm systems. "X" must be 0 for 76mm and 165mm systems.
2. Control valves are available for grooved Model DDV only. Where end connection "U" is 1 through 6, control valve "X" must be "0".