DV-5 Deluge Valve with Remote-Resetting Trim 2 to 8 Inch (DN50 to DN200)

General Description

The TYCO DV-5 Deluge Valve with Remote-Resetting Trim is a quick-opening, hydraulically operated, differential-type valve designed for fire protection system service. For use as an automatic water control valve in a deluge fire protection system, this diaphragm-style valve can be opened and closed during a full-flow condition from a remote location.

Key features of the DV-5 Deluge Valve with Remote-Resetting Trim include the following:

- Remote-resetting feature provides the ability to reset the valve from one or more locations.
- Compact, space-saving design reduces valve room footprint and construction costs.
- Electric actuation is compatible with many types of automatic and manual release options.
- Actuation of fire alarms upon system operation is provided.

The automatic resetting feature of this valve provides for easy, remote resetting of a deluge system without having to open a valve hand-hole cover. Simply re-pressurizing the Diaphragm Chamber resets the valve.

Operation of the DV-5 Deluge Valve with Remote-Resetting Trim is provided by an automatic electric detection system or remote manual electric activation. The easily installed trim configuration for the DV-5 Deluge Valve with Remote-Resetting Trim provides for emergency (manual) release of the valve at the valve location.

NOTICE

The DV-5 Deluge Valve with Remote-Resetting Trim described herein must be installed and maintained in compliance with this document as well as with the applicable installation and testing standards (e.g., NFPA 13 and 25), in addition to the standards of any local authorities having jurisdiction. Failure to do so may impair the performance of these devices.

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 Listed when trimmed as described in Figures 6 - 10
- VdS Approved when trimmed as described in Figures 12 - 16 (Available for European markets only.)

The Trim forms a part of the laboratory listings and is necessary for proper operation of this deluge valve.

Deluge Valve

TYCO DV-5 Deluge Valve

- Figure 5 shows components of the DV-5 Deluge Valve.
- Figure 11 shows the deluge valve with UL trim.
- Figure 17 shows the deluge valve with VdS trim. (Available for European markets only.)

Nominal Sizes

- 2 Inch (DN50)
- 3 Inch (DN80)
- 4 Inch (DN100)
- 6 Inch (DN150)
- 8 Inch (DN200)

Nominal Installation Dimensions

Refer to Figures 1 and 2

Flange Drilling Specifications

Refer to Table B

Valve Maximum Service Pressure

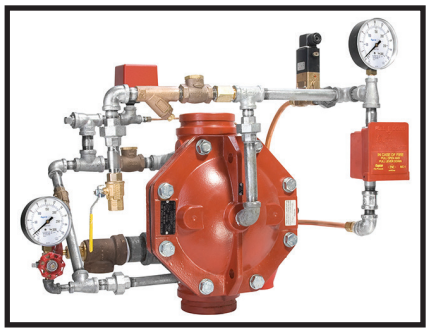
250 psi (17,2 bar)

Pressure Loss

Refer to Graph A

Threaded Ports

- NPT per ANSI Standard B1.20.1
- ISO 7/1



Materials of Construction

NOTICE

The Rilsan coating for the DV-5 Deluge Valve with Remote-Resetting Trim provides corrosion resistance and is intended to extend the life of the Valve when exposed to internal and external corrosive conditions. Although the Rilsan coating is intended to resist corrosion, it is recommended that the end user or other technical expert familiar with conditions at the proposed installation be consulted with respect to the suitability of this coating for a given corrosive condition.*

Deluge systems using a seawater or brackish water supply require special considerations in order to extend the life of the valve and trim. This type of system ideally should be configured with a primary source of clean fresh water and only upon system operation is the secondary water supply (seawater or brackish water) allowed to enter the system.

After system operation, the system should then be thoroughly flushed with clean fresh water. Following this recommendation can increase the service life of the DV-5 Deluge Valve with Remote-Resetting Trim.

Deluge Valve

- Body and Hand-Hole Cover
  RILSAN* coated ductile iron per ASTM A 536-77, Grade 65-45-12
- Diaphragm
  Nylon fabric reinforced, natural rubber per ASTM D 2000

End Connection		Nominal Valve Size in Pounds (kg.)				
Inlet	Outlet	2 Inch (DN50)	3 Inch (DN80)	4 Inch (DN100)	6 Inch (DN150)	8 Inch (DN200)
Thread	Thread	12 lbs. (5,4 kg.)	N/A	N/A	N/A	N/A
Groove	Groove	10 lbs. (4,5 kg.)	31 lbs. (14,1 kg.)	61 lbs. (27,7 kg.)	99 lbs. (44,9 kg.)	150 lbs. (68,1 kg.)
Flange	Groove	N/A	39 lbs. (17,7 kg.)	74 lbs. (33,6 kg.)	107 lbs. (48,5 kg.)	170 lbs. (77,8 kg.)
Flange	Flange	N/A	47 lbs. (21,3 kg.)	80 lbs. (36,3 kg.)	115 lbs. (52,3 kg.)	190 lbs. (87,5 kg.)

TABLE A
DV-5 DELUGE VALVE WITH REMOTE-RESETTING TRIM
AVAILABLE END CONNECTIONS AND WEIGHTS

- V-Ring
  Applies only to 4 Inch/DN100, 6 Inch/DN150 and 8 Inch/DN200

  Natural rubber per ASTM D2000
- Diaphragm Cover Fasteners
  Galvanized carbon steel

Design Criteria

The following items must be considered and applied accordingly for TYCO DV-5 Deluge Valve with Remote-Resetting Trim installations.

NOTICE

The owner is responsible to design into the system a releasing circuit such that a Solenoid Valve is properly configured to enable remote resetting.

The building owner must be informed of the capabilities and limitations of a remote-resetting system as it pertains to the possibility of an inadvertent manual closing of the DV-5 Deluge Valve during a fire condition. Therefore, personnel responsible for the fire protection system must be fully trained on system components and required actions in the case of an alarm.

The Control Panel, Detectors, and Pull Stations are to be installed in accordance with their laboratory listings and approval.

System piping is to be installed so that it is self-draining. TYCO Model AD-2 Automatic Drain Valves can be used to drain low sections of pipe as necessary. For more information, refer to technical data sheet TFP1632.

Operation

The TYCO Remote-Resetting System includes a differential valve that uses water pressure in the Diaphragm Chamber (Figures 3 and 4) to hold the Diaphragm closed against the water supply pressure.

When the DV-5 Valve with Remote-Resetting Trim is set for service, the Diaphragm Chamber is pressurized through the trim connections from the inlet side of the system's main control/shut-off valve, for example an O.S.&Y. gate valve or butterfly valve.

Opening of the Solenoid Valve in the Remote-Resetting Trim releases water from the Diaphragm Chamber faster than it can be replenished through the Restriction in the Diaphragm Chamber Supply Connection provided in the trim. This release results in a rapid pressure drop in the Diaphragm Chamber, and the force differential applied through the Diaphragm that holds it in the set position is reduced below the valve trip point.

The water supply pressure then forces the Diaphragm open, permitting water to flow into the system piping, as well as through the Alarm Port to actuate system alarms.

Closing of the Solenoid Valve in the Remote-Resetting Trim permits the Diaphragm Chamber to repressurize. This repressurizing results in a pressure increase in the Diaphragm Chamber. The resulting force repressurizes the Diaphragm Chamber, closing the valve and stopping the flow of water into the system piping.

Installation

The DV-5 Deluge Valve with Remote-Resetting Trim is to be installed in accordance with this section. Refer to Figure 11 on Page 15 for UL trim and Figure 17 on Page 21 for VdS trim.

NOTICE

Proper operation of the DV-5 Deluge Valve with Remote-Resetting Trim depends upon trim installed in accordance with the instructions given in this technical data sheet. Failure to follow the appropriate trim diagram may prevent the valve from functioning properly, may void the manufacturer's warranty, and will void listings and approvals.

The DV-5 Deluge Valve and associated trim must be maintained at a minimum temperature of 40°F (4°C).

Heat tracing of the DV-5 Deluge Valve or its associated trim is not permitted. Heat tracing can result in the formation of hardened mineral deposits that are capable of preventing proper operation.

Step 1. Install the deluge valve in a readily visible and accessible location.

Step 2. Before trim installation, clean all nipples, fittings, and devices to ensure they are free of scale and burrs. Use pipe-thread sealant sparingly on male pipe threads only.

Step 3. For UL arrangements, trim the deluge valve in accordance with Figures 6 to 10. (VdS arrangements are fully trimmed.)

Step 4. Exercise care to ensure that check valves, strainers, and globe valves are installed with the flow arrows in the proper direction.

Step 5. Drain tubing to the drip funnel must be installed with smooth bends that will not restrict flow.

Step 6. If necessary, connect the main drain and drip funnel drain, ensuring that a check valve is located at least 12 inches (300 mm) below the drip funnel.

Step 7. Ensure suitable provision exists for disposal of drain water (as in the case of a flow test via the Main Drain Valve). Direct drain water so that it cannot cause accidental damage to property or danger to persons.

Step 8. Connect the Diaphragm Chamber Supply Control Valve to the inlet side of the Main Control/Shut-Off Valve to facilitate setting the valve.

NOTICE

The connection to the Diaphragm Chamber Supply Control Valve should be as short as practical and from the same water supply as the system.

Step 9. Make conduit and electrical connections in accordance with the requirements of the authority having jurisdiction and/or the National Electrical Code (NFPA 70).

Valve Setting Procedure

Perform Steps 1 through 11 when initially setting the DV-5 Deluge Valve with Remote-Resetting Trim for service. Refer to the appropriate trim component functional diagram for your installation: Figure 11 on Page 15 for UL and Figure 17 on Page 21 for VdS.

Step 1. Close the Diaphragm Chamber Supply Control Valve.

Step 2. Close the Main Control/ Shut-Off Valve.

Step 3. Open the Main Drain Valve.

Step 4. Depress the plunger of the Automatic Drain Valve to verify that it is open and that the deluge valve is completely drained.

Step 5. Clean the Strainer in the Diaphragm Chamber Supply connection by removing the clean-out plug and strainer basket. Flush the Strainer by momentarily opening the Diaphragm Chamber Supply Control Valve.

Step 6. Reset the actuation system.

Manual Actuation — Push the Manual Control Station operating lever up. However, do not close the hinged cover at this time.

Electric Actuation—Reset the electric detection system (Control Panel) in accordance with the manufacturer's instructions to close the Solenoid Valve.

Step 7. Open the Diaphragm Chamber Supply Control Valve and allow time for full pressure to build up in the Diaphragm Chamber.

Step 8. Operate (open) the Manual Control Station to vent trapped air from the Diaphragm Chamber.

If necessary, first open the hinged cover, and then fully pull down on the operating lever. After aerated water ceases to discharge from the Manual Control Station drain tubing, SLOWLY close the operating lever by pushing it up. Close the hinged cover and insert a new break rod in the small hole through the top of the enclosing box.

Step 9. Inspect drain connections from the Manual Control Station and Solenoid Valve. Before proceeding to the next step, correct any leaks.

Step 10. Verify the ability of the Diaphragm to hold pressure. With the Diaphragm Chamber pressurized, temporarily close the Diaphragm Chamber Supply Control Valve and observe the Diaphragm Chamber Pressure Gauge for a drop in pressure.

- If a drop in pressure occurs, correct any leaks. If necessary, replace the Diaphragm and/or correct any leaks before proceeding to the next step.
- If the Diaphragm Chamber Pressure Gauge does not indicate a drop in pressure, re-open the Diaphragm Chamber Supply Control Valve and proceed to the next step.

Step 11. Slowly open the Main Control/ Shut-Off Valve. Close the Main Drain Valve as soon as water discharges from the drain connection.

Observe the Automatic Drain Valve for leaks.

- If there are leaks, determine/correct the cause of the leakage problem.
- If there are no leaks, the DV-5 Deluge Valve with Remote-Resetting Trim is ready to place in service and the Main Control/Shut-Off Valve must then be fully opened.

Step 12. If equipped in trim, open the Alarm Control Valve.

For VdS Trim only, the Alarm Control Valve is recommended to be wire-sealed in the open position with a No. 16 twisted wire, the ends of which are secured by a lead seal. The wire seal should be looped through the hole in the handle and tightly twisted around the pipe nipple at the outlet of the Alarm Control Valve.

NOTICE

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

Valve Size	Nominal Dimensions in Inches and (mm)							
	A	B	C	D	E	F	G	H
2 Inch (DN50)	8.66 (220)	13.19 (355)	10.50 (267)	9.13 (232)	7.13 (181)	15.56 (395)	3.00 (76)	4.09 (103,9)
3 Inch (DN80)	12.79 (325)	13.19 (355)	10.50 (267)	10.44 (265)	7.81 (198)	19.13 (486)	0.88 (22)	3.85 (98,0)
4 Inch (DN100)	15.75 (400)	14.31 (364)	10.50 (267)	11.75 (299)	10.00 (254)	22.13 (562)	0.63 (16)	4.56 (116,0)
6 Inch (DN150)	18.31 (465)	15.31 (389)	10.50 (267)	14.31 (364)	11.38 (289)	23.31 (592)	1.81 (46)	5.86 (149,0)
8 Inch (DN200)	22.44 (570)	16.25 (413)	10.50 (267)	16.00 (406)	12.00 (305)	25.50 (648)	7.38 (187)	5.26 (134,0)

*Minimum clearance

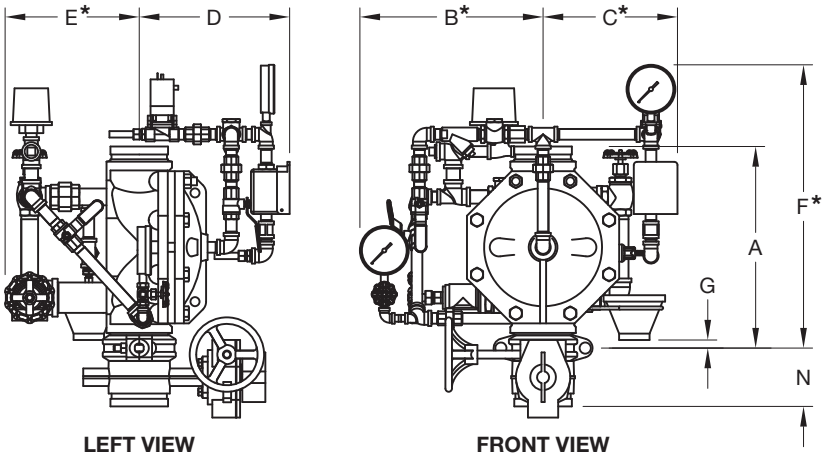


FIGURE 1
DV-5 WITH REMOTE-RESETTING TRIM NOMINAL INSTALLATION DIMENSIONS
UL

Valve Size	Dimensions in Inches and (mm)						
	A	B	C	D	E	F	G
2 Inch (DN50)	8.66 (220)	11.81 (300)	11.61 (295)	7.48 (190)	7.48 (190)	13.78 (350)	7.87 (200)
3 Inch (DN80)	12.79 (325)	12.40 (315)	11.61 (295)	8.66 (220)	8.27 (210)	15.94 (405)	5.12 (130)
4 Inch (DN100)	15.75 (400)	11.42 (290)	11.61 (395)	10.24 (260)	9.25 (235)	17.72 (450)	4.33 (110)
6 Inch (DN150)	18.31 (465)	12.40 (315)	11.61 (395)	12.80 (325)	10.43 (265)	20.47 (520)	1.38 (35)
8 Inch (DN200)	22.44 (570)	13.39 (340)	11.61 (395)	14.37 (365)	11.02 (280)	23.82 (605)	N/A

*Minimum clearance

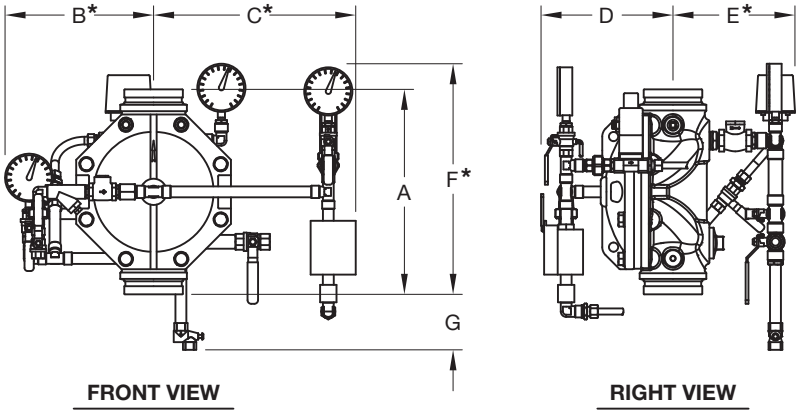


FIGURE 2
DV-5 WITH REMOTE-RESETTING TRIM NOMINAL INSTALLATION DIMENSIONS
VdS
(Available for European Markets Only)

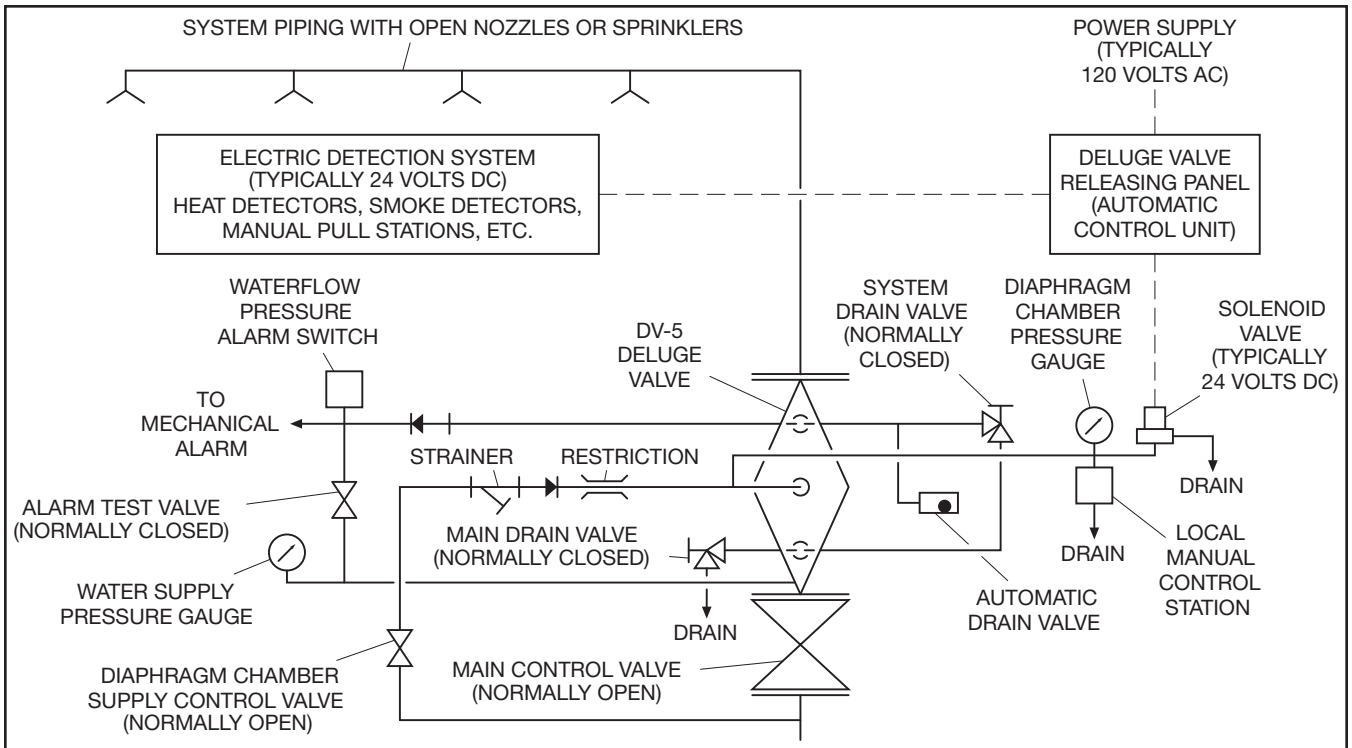


FIGURE 3
DV-5 WITH REMOTE-RESETTING TRIM
UL SYSTEM SCHEMATIC

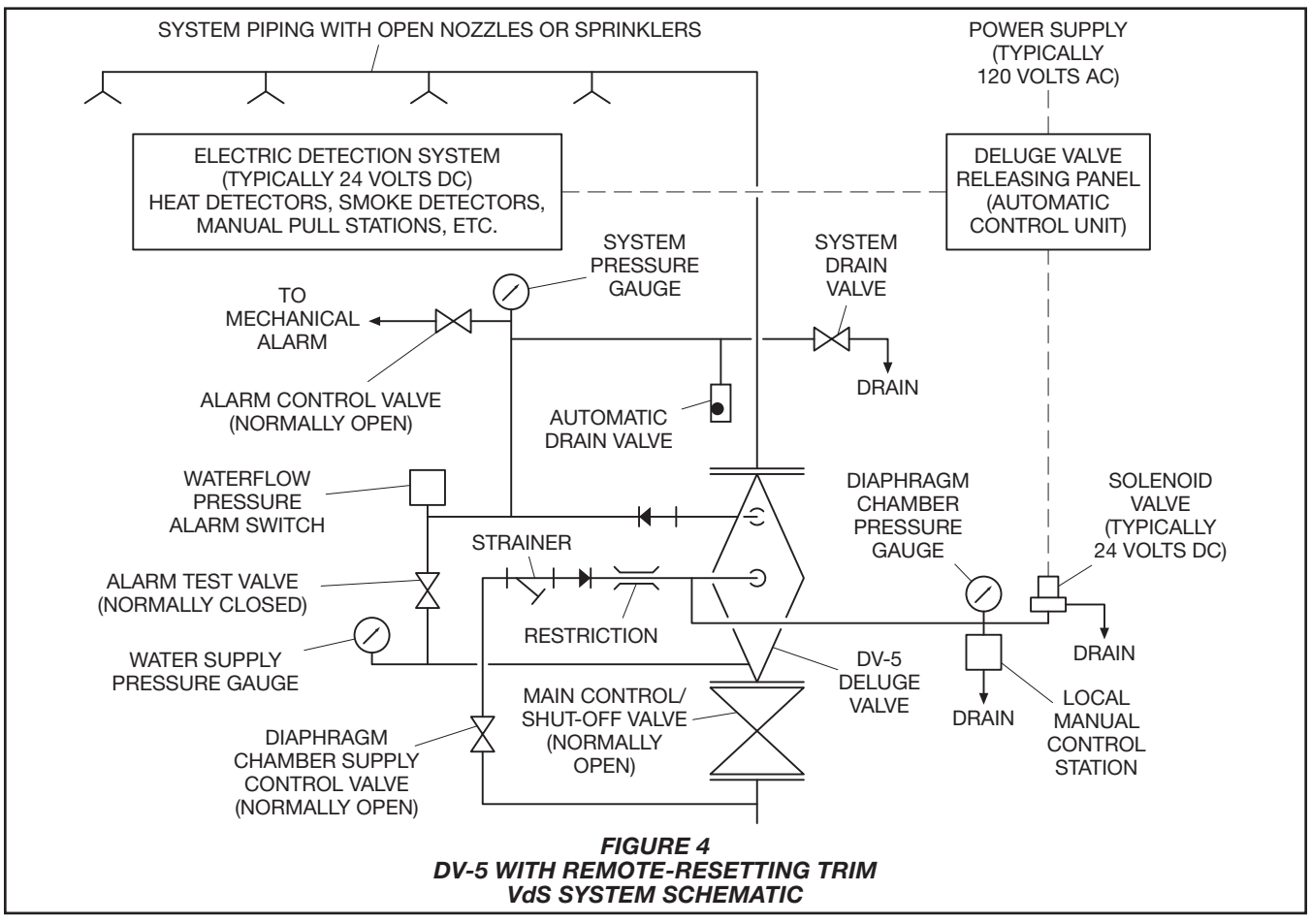


FIGURE 4
DV-5 WITH REMOTE-RESETTING TRIM
VdS SYSTEM SCHEMATIC

VALVE PARTS			
No.	Description	Qty.	Repair Parts
1	Valve Body	1	NR
2	Diaphragm	1	(a)
3	Diaphragm Cover	1	NR
4	Flat Washer, Metric:		
	2 Inch (DN50) Valve & 3 Inch (DN80) Valve, M16	4	CH
	4 Inch (DN100) Valve & 6 Inch (DN150) Valve, M16	8	CH
	8 Inch (DN200) Valve, M20	8	CH
5	Hex Bolt, Metric:		
	2 Inch (DN50) Valve & 3 Inch (DN80) Valve, M16 x 50 mm	4	CH
	4 Inch (DN100) Valve, M16 x 50 mm	6	CH
	6 Inch (DN150) Valve, M16 x 55 mm	6	CH
	8 Inch (DN200) Valve, M20 x 70 mm	6	CH
6	Hex Nut, Metric:		
	4 Inch (DN100) Valve & 6 Inch (DN150) Valve, M16	2	CH
	8 Inch (DN200) Valve, M20	2	CH

NOTES:

1. NR - Not Replaceable
2. CH - Common Hardware
3. Valve Bodies of 4, 6 and 8 Inch (DN100, DN150 & DN200) valves are equipped with studs and Valve Covers are secured by Hex Nuts and Hex Bolts.
4. V-Ring is attached to Diaphragm of 4, 6 and 8 Inch (DN100, DN150 & DN200) valves at factory. If, during internal valve inspection, V-Ring is discovered to be detached from Diaphragm, be advised that V-Ring is a required valve component and that detachment will not affect normal valve operation or performance. Should V-Ring become detached, reinstall between Diaphragm and Diaphragm Cover concentrically as shown.

NOTE: *Do not apply adhesives, lubricants, or other substances to Diaphragm, V-Ring, or Valve Body.*

REPLACEMENT PARTS		
No.	Description	P/N
(a)	Diaphragm Kit, Includes Item 2:	
	2 Inch (DN50) Valve	92-477-1-107
	3 Inch (DN80) Valve	92-477-1-109
	4 Inch (DN100) Valve	92-477-1-101
	6 Inch (DN150) Valve	92-477-1-103
	8 Inch (DN200) Valve	92-477-1-111

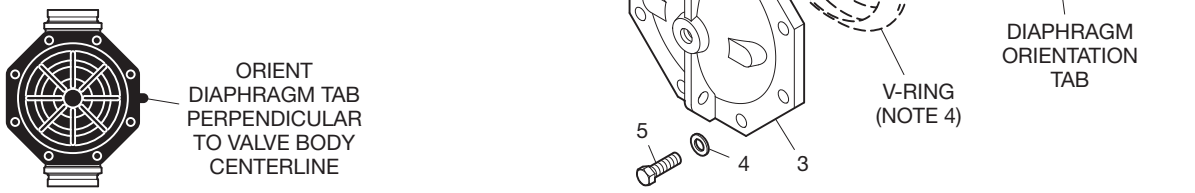
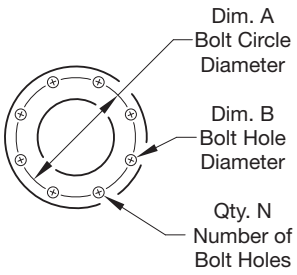


FIGURE 5
DV-5 WITH REMOTE-RESETTING TRIM
VALVE ASSEMBLY

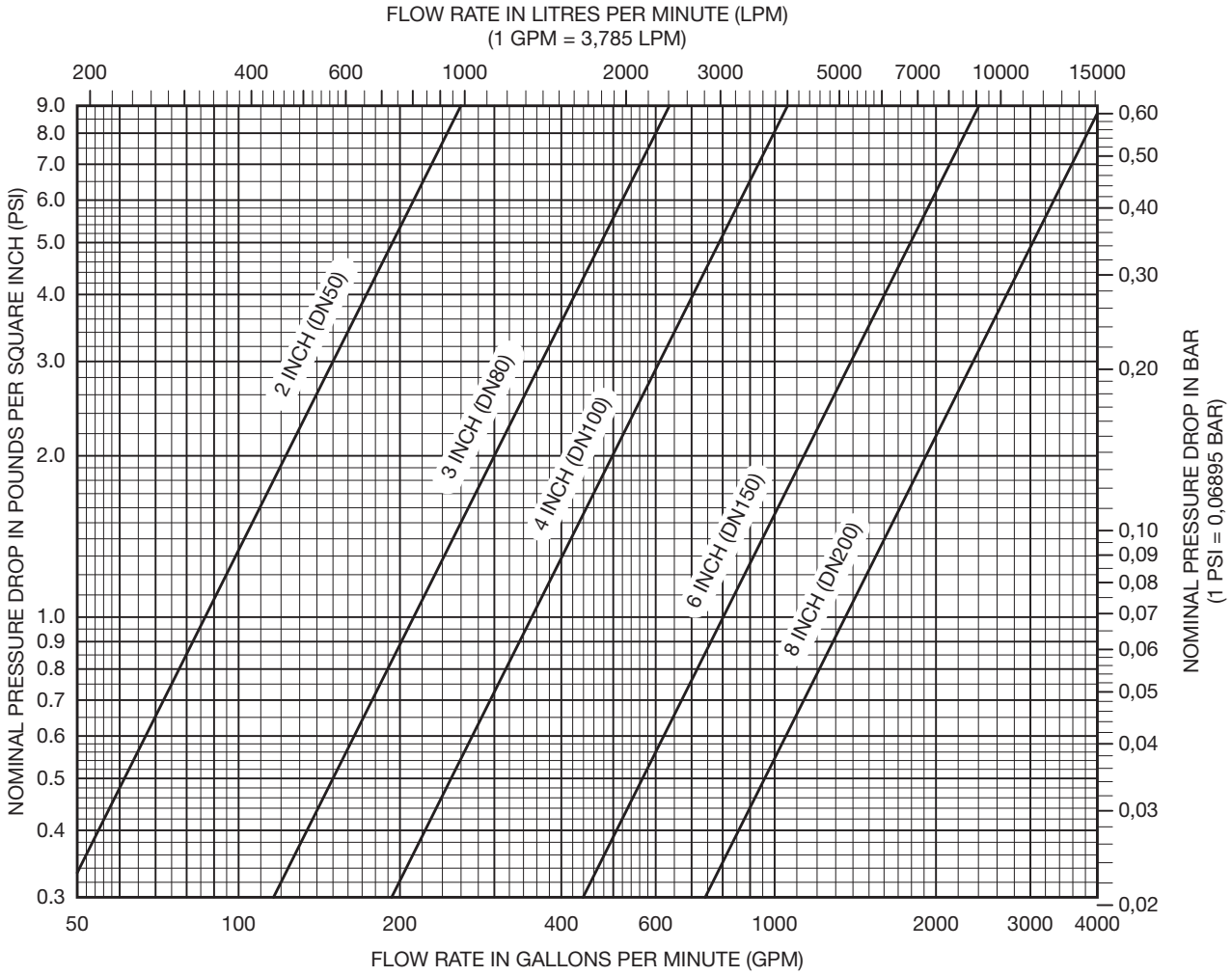
Nominal Valve Size [1]	Flange Drilling Specification — Nominal Dimensions in Inches and (mm)														
	ANSI B16.1 (Class 125) [2]			ISO 7005-2 (PN10) [3]			ISO 7005-2 (PN16) [4]			JIS B 2210 (10K)			AS 2129 (Table E)		
	A	B	N	A	B	N	A	B	N	A	B	N	A	B	N
3 Inch (DN80)	6.00 (152,4)	0.75 (19,0)	4	USE ISO 7005-2 (PN16)			6.30 (160,0)	0.75 (19,0)	8	N/A			N/A		
4 Inch (DN100)	7.50 (190,5)	0.75 (19,0)	8				7.09 (180,0)	0.75 (19,0)	8	6.89 (175,0)	0.60 (15,0)	8	7.00 (178,0)	0.71 (18,0)	8
6 Inch (DN150)	9.50 (241,3)	0.88 (22,2)	8				9.45 (240,0)	0.91 (23,0)	8	9.45 (240,0)	0.75 (19,0)	8	9.25 (235,0)	0.87 (22,0)	8
8 Inch (DN200)	11.75 (298,5)	0.88 (22,2)	8	11.61 (295,0)	0.91 (23,0)	8	11.61 (295,0)	0.91 (23,0)	12	N/A			11.50 (292,0)	0.87 (22,0)	8



Notes:

1. Flange end 1-1/2 & 2 Inch (DN40 & DN50) DV-5 Valves are not offered.
2. Same drilling as for B16.5 (Class 150) and B16.42 (Class 250).
3. Same drilling as for BS 4504 Section 3.2 (PN10) and DIN 2532 (PN10).
4. Same drilling as for BS 4504 Section 3.2 (PN16) and DIN 2532 (PN16).

TABLE B
DV-5 WITH REMOTE-RESETTING TRIM
FLANGE DRILLING SPECIFICATION



Approximate friction loss, based on the Hazen and Williams formula and expressed in equivalent length of pipe with C=120, is as follows:

16 feet of 2 inch Schedule 40 pipe for the 2 inch DV-5 Valve calculated on a typical flow rate of 175 gpm.

20 feet of 3 inch Schedule 40 pipe for the 3 inch DV-5 Valve calculated on a typical flow rate of 350 gpm.

29 feet of 4 inch Schedule 40 pipe for the 4 inch DV-5 Valve calculated on a typical flow rate of 600 gpm.

46 feet of 6 inch Schedule 40 pipe for the 6 inch DV-5 Valve calculated on a typical flow rate of 1500 gpm.

72 feet of 8 inch Schedule 30 pipe for the 6 inch DV-5 Valve calculated on a typical flow rate of 2500 gpm.

Approximate friction loss, based on the Hazen and Williams formula and expressed in equivalent length of pipe with C=120, is as follows:

5 meters of DN50 Schedule 40 pipe for the DN50 DV-5 Valve calculated on a typical flow rate of 662 lpm.

6 meters of DN80 Schedule 40 pipe for the DN80 DV-5 Valve calculated on a typical flow rate of 1325 lpm.

9 meters of DN100 Schedule 40 pipe for the DN100 DV-5 Valve calculated on a typical flow rate of 2271 lpm.

14 meters of DN150 Schedule 40 pipe for the DN150 DV-5 Valve calculated on a typical flow rate of 5678 lpm.

22 meters of DN200 Schedule 30 pipe for the DN200 DV-5 Valve calculated on a typical flow rate of 9464 lpm.

GRAPH A
DV-5 WITH REMOTE-RESETTING TRIM
NOMINAL PRESSURE LOSS VERSUS FLOW

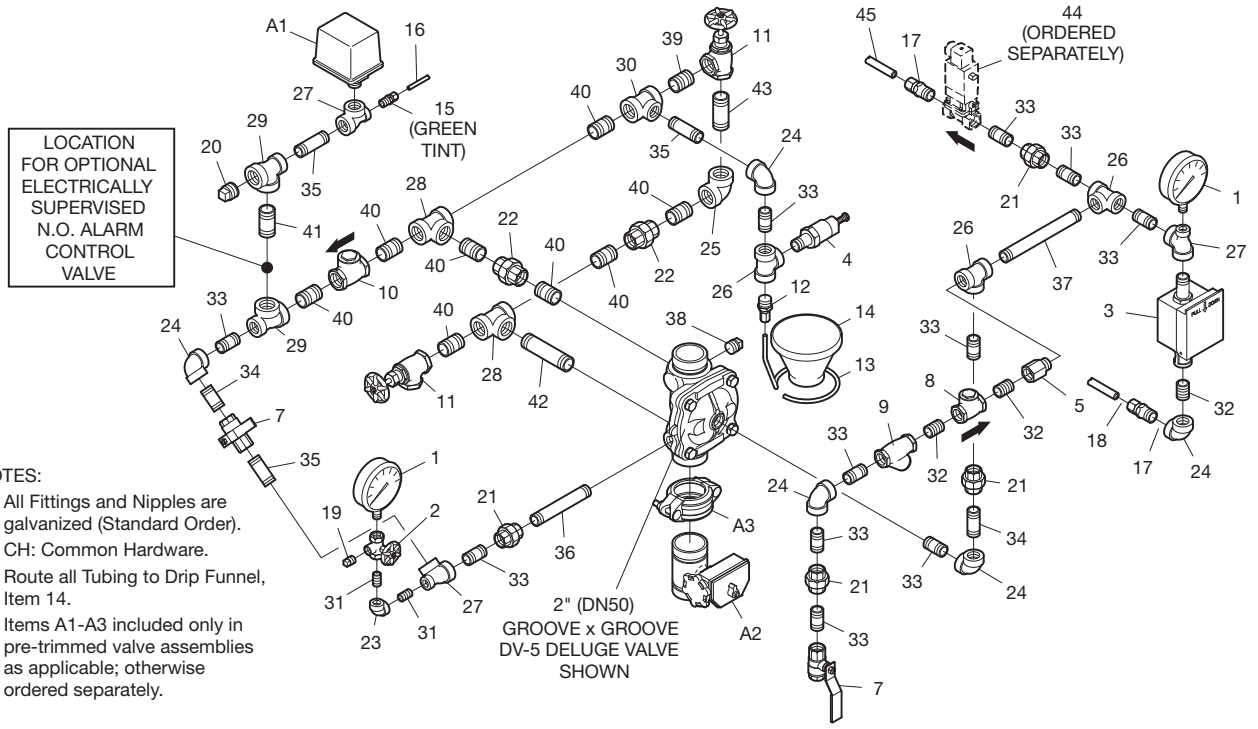
NO.	DESCRIPTION	QTY.	P/N
1	300 psi/ 2000 kPa Water Pressure Gauge	2	92-343-1-005
2	1/4" Gauge Test Valve	1	46-005-1-002
3	Model MC-1 Manual Control Station	1	52-289-2-001
4	Model AD-1 Automatic Drain Valve	1	52-793-2-004
5	Priming Supply Restriction, 1/8" Orifice	1	92-020-1-009
6	Item No. Not Used		
7	1/2" Ball Valve	2	46-050-1-004
8	1/2" Swing Check Valve	1	46-049-1-004
9	1/2" Y-Strainer	1	52-353-1-005
10	3/4" Swing Check Valve	1	46-049-1-005
11	3/4" Angle Valve	2	46-048-1-005
12	Drip Funnel Connector	1	92-211-1-005
13	Drip Funnel Bracket	1	92-211-1-003
14	Drip Funnel	1	92-343-1-007
15	3/32" Vent Fitting	1	92-032-1-002
16	1/4" x 18" Tubing	1	CH
17	1/2" Tubing Connector	2	CH

NO.	DESCRIPTION	QTY.	P/N
18	1/2" x 12" Tubing	1	CH
19	1/4" Plug	1	CH
20	3/4" Plug	1	CH
21	1/2" Union	4	CH
22	3/4" Union	2	CH
23	1/4" 90° Elbow	1	CH
24	1/2" 90° Elbow	5	CH
25	3/4" 90° Elbow	1	CH
26	1/2" Tee	3	CH
27	1/2" x 1/4" x 1/2" Tee	3	CH
28	3/4" Tee	2	CH
29	3/4" x 1/2" x 3/4" Tee	2	CH
30	3/4" x 3/4" x 1/2" Tee	1	CH
31	1/4" x Close Nipple	2	CH
32	1/2" x Close Nipple	3	CH
33	1/2" x 1-1/2" Nipple	11	CH
34	1/2" x 2" Nipple	2	CH
35	1/2" x 2-1/2" Nipple	3	CH
36	1/2" x 5" Nipple	1	CH
37	1/2" x 7" Nipple	1	CH
38	1/2" Plug	1	CH

NO.	DESCRIPTION	QTY.	P/N
39	3/4" x Close Nipple	1	CH
40	3/4" x 1-1/2" Nipple	8	CH
41	3/4" x 2" Nipple	1	CH
42	3/4" x 4" Nipple	1	CH
43	3/4" x 2-1/2" Nipple	1	CH
44	24 VDC Impulse Solenoid Valve	1	Ordered Separately
45	1/2" x 24" Tubing	1	CH

COMPONENTS INCLUDED ONLY IN PRE-TRIMMED VALVE ASSEMBLIES:

A1	Waterflow Pressure Alarm Switch, Model PS10-2	1	25710
A2	Butterfly Valve, Power Ball 300, 2" (DN50)	1	51021A
A3	Figure 577 Coupling, 2" (DN50)	1	57720ACP



NOTES:

1. All Fittings and Nipples are galvanized (Standard Order).
2. CH: Common Hardware.
3. Route all Tubing to Drip Funnel, Item 14.
4. Items A1-A3 included only in pre-trimmed valve assemblies as applicable; otherwise ordered separately.

FIGURE 6
2 INCH (DN50) DV-5 WITH REMOTE-RESETTING TRIM
UL

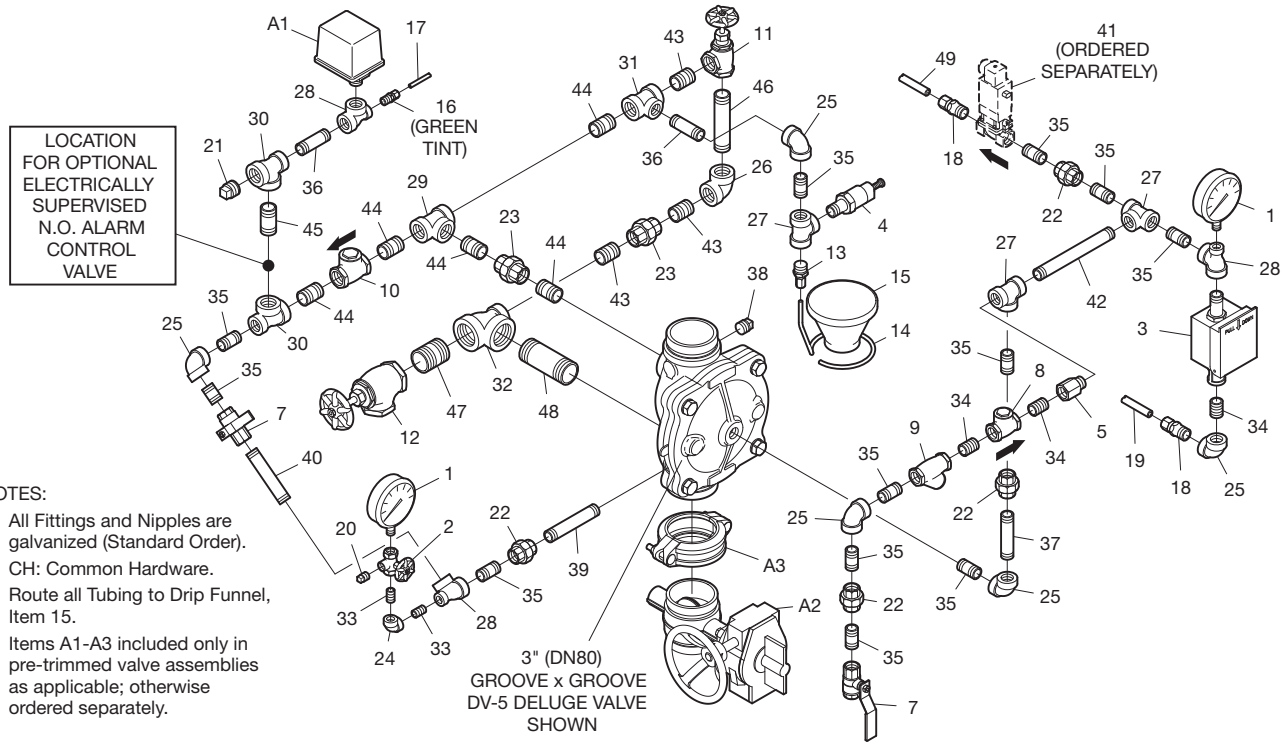
NO.	DESCRIPTION	QTY.	P/N
1	300 psi/ 2000 kPa Water Pressure Gauge	2	92-343-1-005
2	1/4" Gauge Test Valve	1	46-005-1-002
3	Model MC-1 Manual Control Station	1	52-289-2-001
4	Model AD-1 Automatic Drain Valve	1	52-793-2-004
5	Priming Supply Restriction, 1/8" Orifice	1	92-020-1-009
6	Item No. Not Used		
7	1/2" Ball Valve	2	46-050-1-004
8	1/2" Swing Check Valve	1	46-049-1-004
9	1/2" Y-Strainer	1	52-353-1-005
10	3/4" Swing Check Valve	1	46-049-1-005
11	3/4" Angle Valve	1	46-048-1-005
12	1-1/4" Angle Valve	1	46-048-1-007
13	Drip Funnel Connector	1	92-211-1-005
14	Drip Funnel Bracket	1	92-211-1-003
15	Drip Funnel	1	92-343-1-007
16	3/32" Vent Fitting	1	92-032-1-002
17	1/4" x 18" Tubing	1	CH
18	1/2" Tubing Connector	2	CH

NO.	DESCRIPTION	QTY.	P/N
19	1/2" x 12" Tubing	1	CH
20	1/4" Plug	1	CH
21	3/4" Plug	1	CH
22	1/2" Union	4	CH
23	3/4" Union	2	CH
24	1/4" 90° Elbow	1	CH
25	1/2" 90° Elbow	5	CH
26	3/4" 90° Elbow	1	CH
27	1/2" Tee	3	CH
28	1/2" x 1/4" x 1/2" Tee	3	CH
29	3/4" Tee	1	CH
30	3/4" x 1/2" x 3/4" Tee	2	CH
31	3/4" x 3/4" x 1/2" Tee	1	CH
32	1-1/4" x 3/4" x 1-1/4" Tee	1	CH
33	1/4" x Close Nipple	2	CH
34	1/2" x Close Nipple	3	CH
35	1/2" x 1-1/2" Nipple	12	CH
36	1/2" x 2-1/2" Nipple	2	CH
37	1/2" x 3-1/2" Nipple	1	CH
38	1/2" Plug	1	CH
39	1/2" x 4-1/2" Nipple	1	CH
40	1/2" x 5" Nipple	1	CH

NO.	DESCRIPTION	QTY.	P/N
41	24 VDC Impulse Solenoid Valve	1	Ordered Separately
42	1/2" x 7" Nipple	1	CH
43	3/4" x Close Nipple	3	CH
44	3/4" x 1-1/2" Nipple	5	CH
45	3/4" x 2" Nipple	1	CH
46	3/4" x 4-1/2" Nipple	1	CH
47	1-1/4" x 2" Nipple	1	CH
48	1-1/4" x 4" Nipple	1	CH
49	1/2" x 24" Tubing	1	CH

COMPONENTS INCLUDED ONLY IN PRE-TRIMMED VALVE ASSEMBLIES:

A1	Waterflow Pressure Alarm Switch, Model PS10-2	1	25710
A2	Model BFV-N Butterfly Valve, 3" (DN80)	1	59300F030N
A3	Figure 577 Coupling, 3" (DN80)	1	57730ACP



NOTES:

1. All Fittings and Nipples are galvanized (Standard Order).
2. CH: Common Hardware.
3. Route all Tubing to Drip Funnel, Item 15.
4. Items A1-A3 included only in pre-trimmed valve assemblies as applicable; otherwise ordered separately.

FIGURE 7
3 INCH (DN80) DV-5 WITH REMOTE-RESETTING TRIM
UL

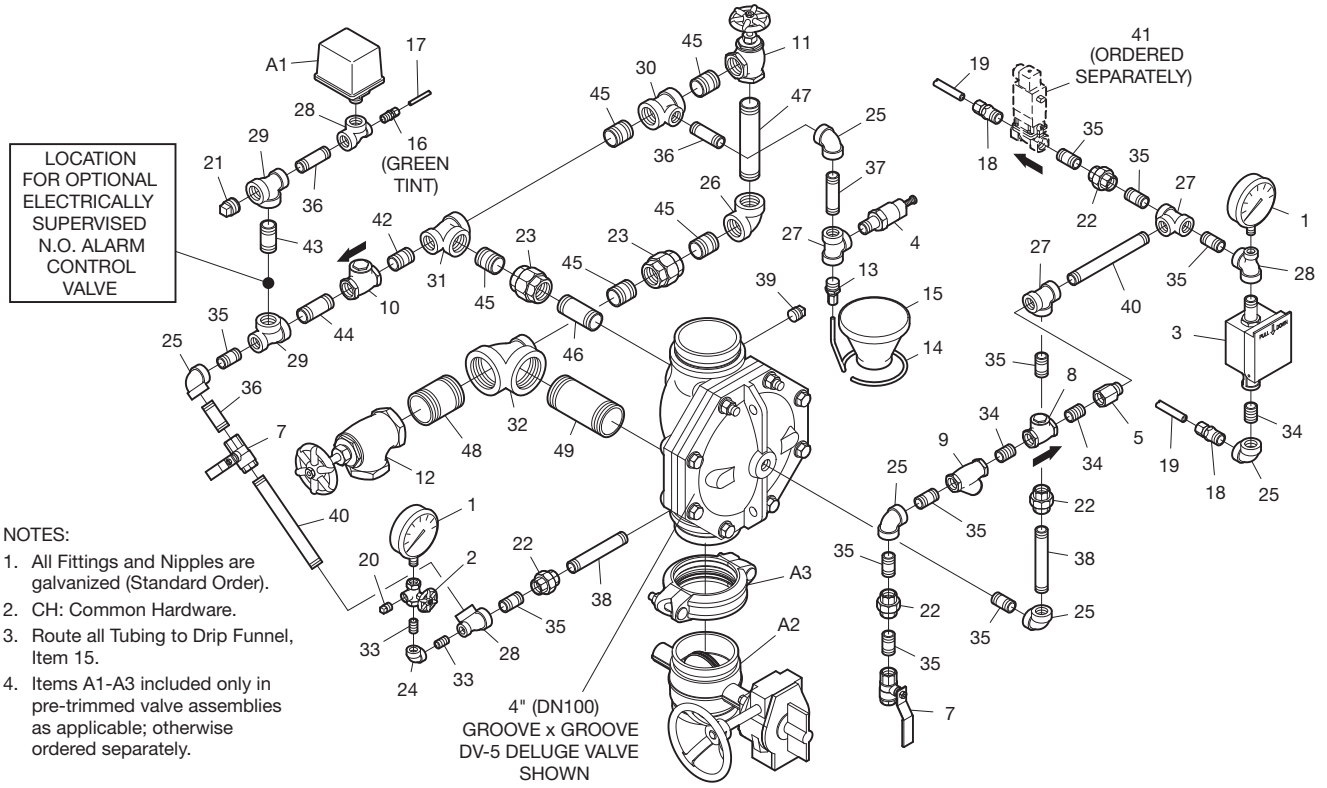
NO.	DESCRIPTION	QTY.	P/N
1	300 psi/ 2000 kPa Water Pressure Gauge	2	92-343-1-005
2	1/4" Gauge Test Valve	1	46-005-1-002
3	Model MC-1 Manual Control Station	1	52-289-2-001
4	Model AD-1 Automatic Drain Valve	1	52-793-2-004
5	Priming Supply Restriction, 1/8" Orifice	1	92-020-1-009
6	Item No. Not Used		
7	1/2" Ball Valve	2	46-050-1-004
8	1/2" Swing Check Valve	1	46-049-1-004
9	1/2" Y-Strainer	1	52-353-1-005
10	3/4" Swing Check Valve	1	46-049-1-005
11	1" Angle Valve	1	46-048-1-006
12	2" Angle Valve	1	46-048-1-009
13	Drip Funnel Connector	1	92-211-1-005
14	Drip Funnel Bracket	1	92-211-1-003
15	Drip Funnel	1	92-343-1-007
16	3/32" Vent Fitting	1	92-032-1-002
17	1/4" x 24" Tubing	1	CH
18	1/2" Tubing Connector	2	CH

NO.	DESCRIPTION	QTY.	P/N
19	1/2" x 24" Tubing	2	CH
20	1/4" Plug	1	CH
21	3/4" Plug	1	CH
22	1/2" Union	4	CH
23	1" Union	2	CH
24	1/4" 90° Elbow	1	CH
25	1/2" 90° Elbow	5	CH
26	1" 90° Elbow	1	CH
27	1/2" Tee	3	CH
28	1/2" x 1/4" x 1/2" Tee	3	CH
29	3/4" x 1/2" x 3/4" Tee	2	CH
30	1" x 1" x 1/2" Tee	1	CH
31	1" x 3/4" x 1" Tee	1	CH
32	2" x 1" x 2" Tee	1	CH
33	1/4" x Close Nipple	2	CH
34	1/2" x Close Nipple	3	CH
35	1/2" x 1-1/2" Nipple	10	CH
36	1/2" x 2-1/2" Nipple	3	CH
37	1/2" x 3" Nipple	1	CH
38	1/2" x 5" Nipple	2	CH
39	1/2" Plug	1	CH
40	1/2" x 7" Nipple	2	CH

NO.	DESCRIPTION	QTY.	P/N
41	24 VDC Impulse Solenoid Valve	1	Ordered Separately
42	3/4" x 1-1/2" Nipple	1	CH
43	3/4" x 2" Nipple	1	CH
44	3/4" x 2-1/2" Nipple	1	CH
45	1" x Close Nipple	5	CH
46	1" x 3" Nipple	1	CH
47	1" x 6" Nipple	1	CH
48	2" x 3" Nipple	1	CH
49	2" x 5" Nipple	1	CH

COMPONENTS INCLUDED ONLY IN PRE-TRIMMED VALVE ASSEMBLIES:

A1	Waterflow Pressure Alarm Switch, Model PS10-2	1	25710
A2	Model BFV-N Butterfly Valve, 4" (DN100)	1	59300F040N
A3	Figure 577 Coupling, 4" (DN100)	1	57740ACP



NOTES:

1. All Fittings and Nipples are galvanized (Standard Order).
2. CH: Common Hardware.
3. Route all Tubing to Drip Funnel, Item 15.
4. Items A1-A3 included only in pre-trimmed valve assemblies as applicable; otherwise ordered separately.

FIGURE 8
4 INCH (DN100) DV-5 WITH REMOTE-RESETTING TRIM
UL

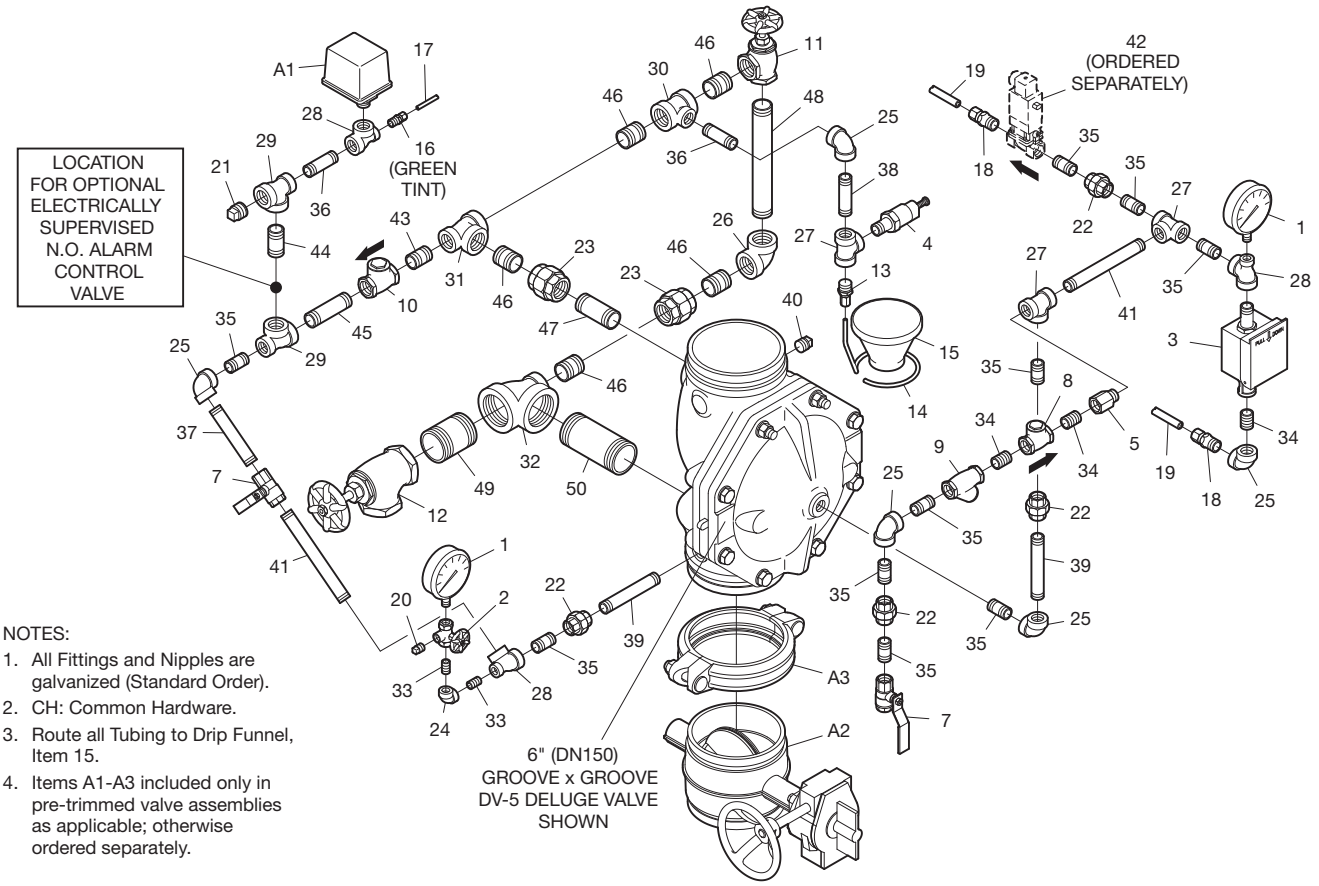
NO.	DESCRIPTION	QTY.	P/N
1	300 psi/ 2000 kPa Water Pressure Gauge	2	92-343-1-005
2	1/4" Gauge Test Valve	1	46-005-1-002
3	Model MC-1 Manual Control Station	1	52-289-2-001
4	Model AD-1 Automatic Drain Valve	1	52-793-2-004
5	Priming Supply Restriction, 3/16" Orifice	1	92-210-1-011
6	Item No. Not Used		
7	1/2" Ball Valve	2	46-050-1-004
8	1/2" Swing Check Valve	1	46-049-1-004
9	1/2" Y-Strainer	1	52-353-1-005
10	3/4" Swing Check Valve	1	46-049-1-005
11	1" Angle Valve	1	46-048-1-006
12	2" Angle Valve	1	46-048-1-009
13	Drip Funnel Connector	1	92-211-1-005
14	Drip Funnel Bracket	1	92-211-1-003
15	Drip Funnel	1	92-343-1-007
16	3/32" Vent Fitting	1	92-032-1-002
17	1/4" x 24" Tubing	1	CH
18	1/2" Tubing Connector	2	CH

NO.	DESCRIPTION	QTY.	P/N
19	1/2" x 24" Tubing	2	CH
20	1/4" Plug	1	CH
21	3/4" Plug	1	CH
22	1/2" Union	4	CH
23	1" Union	2	CH
24	1/4" 90° Elbow	1	CH
25	1/2" 90° Elbow	5	CH
26	1" 90° Elbow	1	CH
27	1/2" Tee	3	CH
28	1/2" x 1/4" x 1/2" Tee	3	CH
29	3/4" x 1/2" x 3/4" Tee	2	CH
30	1" x 1" x 1/2" Tee	1	CH
31	1" x 3/4" x 1" Tee	1	CH
32	2" x 1" x 2" Tee	1	CH
33	1/4" x Close Nipple	2	CH
34	1/2" x Close Nipple	3	CH
35	1/2" x 1-1/2" Nipple	10	CH
36	1/2" x 2-1/2" Nipple	2	CH
37	1/2" x 5-1/2" Nipple	1	CH
38	1/2" x 3" Nipple	1	CH
39	1/2" x 5" Nipple	2	CH
40	1/2" Plug	1	CH

NO.	DESCRIPTION	QTY.	P/N
41	1/2" x 7" Nipple	2	CH
42	24 VDC Impulse Solenoid Valve	1	Ordered Separately
43	3/4" x 1-1/2" Nipple	1	CH
44	3/4" x 2" Nipple	1	CH
45	3/4" x 3-1/2" Nipple	1	CH
46	1" x Close Nipple	5	CH
47	1" x 3" Nipple	1	CH
48	1" x 9" Nipple	1	CH
49	2" x 3" Nipple	1	CH
50	2" x 5" Nipple	1	CH

COMPONENTS INCLUDED ONLY IN PRE-TRIMMED VALVE ASSEMBLIES:

A1	Waterflow Pressure Alarm Switch, Model PS10-2	1	25710
A2	Model BFV-N Butterfly Valve, 6" (DN150)	1	59300F060N
A3	Figure 577 Coupling, 6" (DN150)	1	57760ACP



NOTES:

1. All Fittings and Nipples are galvanized (Standard Order).
2. CH: Common Hardware.
3. Route all Tubing to Drip Funnel, Item 15.
4. Items A1-A3 included only in pre-trimmed valve assemblies as applicable; otherwise ordered separately.

FIGURE 9
6 INCH (DN150) DV-5 WITH REMOTE-RESETTING TRIM
UL

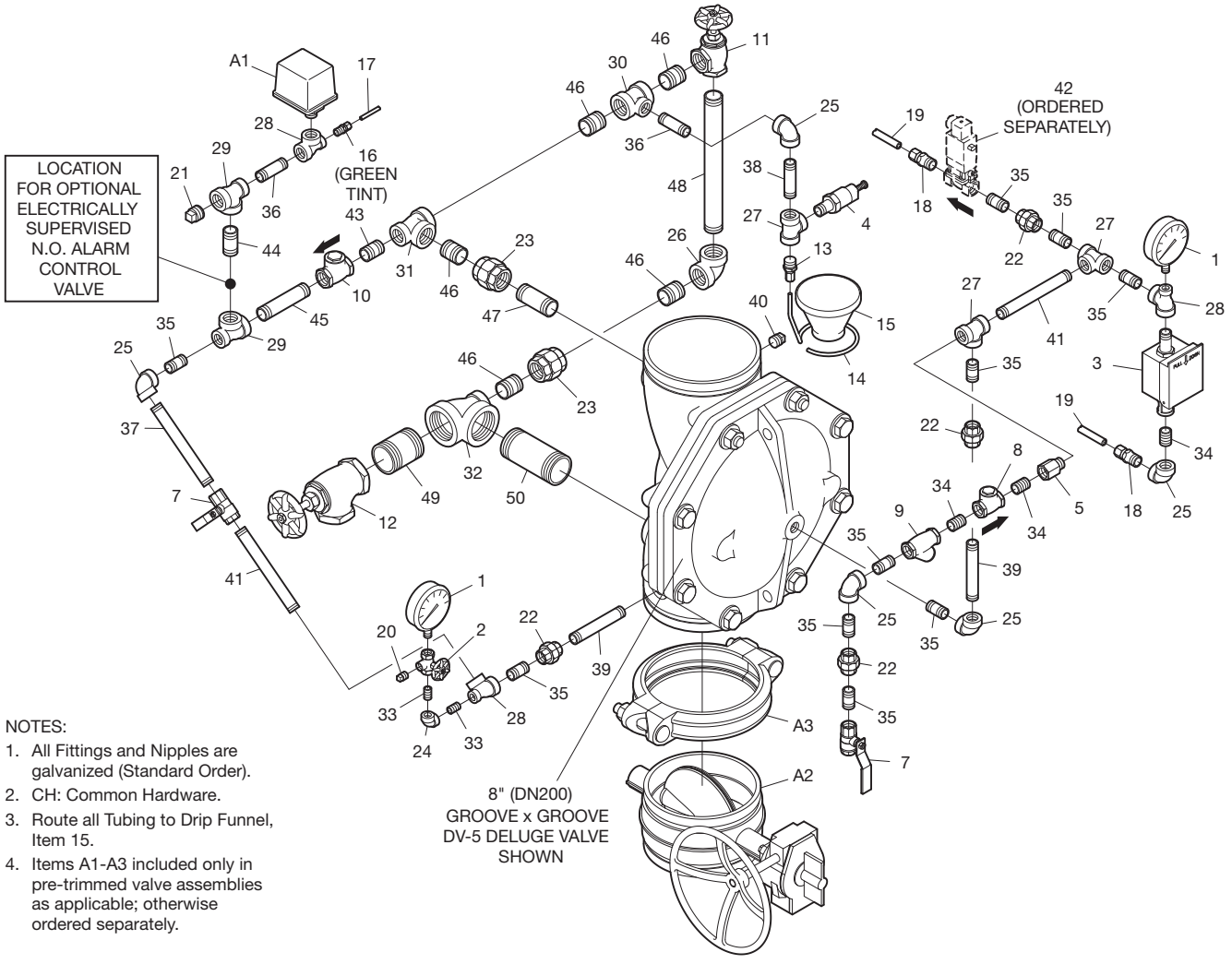
NO.	DESCRIPTION	QTY.	P/N
1	300 psi/ 2000 kPa Water Pressure Gauge	2	92-343-1-005
2	1/4" Gauge Test Valve	1	46-005-1-002
3	Model MC-1 Manual Control Station	1	52-289-2-001
4	Model AD-1 Automatic Drain Valve	1	52-793-2-004
5	Priming Supply Restriction, 3/16" Orifice	1	92-210-1-011
6	Item No. Not Used		
7	1/2" Ball Valve	2	46-050-1-004
8	1/2" Swing Check Valve	1	46-049-1-004
9	1/2" Y-Strainer	1	52-353-1-005
10	3/4" Swing Check Valve	1	46-049-1-005
11	1" Angle Valve	1	46-048-1-006
12	2" Angle Valve	1	46-048-1-009
13	Drip Funnel Connector	1	92-211-1-005
14	Drip Funnel Bracket	1	92-211-1-003
15	Drip Funnel	1	92-343-1-007
16	3/32" Vent Fitting	1	92-032-1-002
17	1/4" x 24" Tubing	1	CH
18	1/2" Tubing Connector	2	CH

NO.	DESCRIPTION	QTY.	P/N
19	1/2" x 24" Tubing	2	CH
20	1/4" Plug	1	CH
21	3/4" Plug	1	CH
22	1/2" Union	4	CH
23	1" Union	2	CH
24	1/4" 90° Elbow	1	CH
25	1/2" 90° Elbow	5	CH
26	1" 90° Elbow	1	CH
27	1/2" Tee	3	CH
28	1/2" x 1/4" x 1/2" Tee	3	CH
29	3/4" x 1/2" x 3/4" Tee	2	CH
30	1" x 1" x 1/2" Tee	1	CH
31	1" x 3/4" x 1" Tee	1	CH
32	2" x 1" x 2" Tee	1	CH
33	1/4" x Close Nipple	2	CH
34	1/2" x Close Nipple	3	CH
35	1/2" x 1-1/2" Nipple	10	CH
36	1/2" x 2-1/2" Nipple	2	CH
37	1/2" x 8-1/2" Nipple	1	CH
38	1/2" x 3" Nipple	1	CH
39	1/2" x 5" Nipple	2	CH
40	1/2" Plug	1	CH

NO.	DESCRIPTION	QTY.	P/N
41	1/2" x 7" Nipple	2	CH
42	24 VDC Impulse Solenoid Valve	1	Ordered Separately
43	3/4" x 1-1/2" Nipple	1	CH
44	3/4" x 2" Nipple	1	CH
45	3/4" x 4-1/2" Nipple	1	CH
46	1" x Close Nipple	5	CH
47	1" x 3" Nipple	1	CH
48	1" x 12" Nipple	1	CH
49	2" x 3" Nipple	1	CH
50	2" x 5" Nipple	1	CH

COMPONENTS INCLUDED ONLY IN PRE-TRIMMED VALVE ASSEMBLIES:

A1	Waterflow Pressure Alarm Switch, Model PS10-2	1	25710
A2	Model BFV-N Butterfly Valve, 8" (DN200)	1	59300F080N
A3	Figure 577 Coupling, 8" (DN200)	1	57780ACP



NOTES:

1. All Fittings and Nipples are galvanized (Standard Order).
2. CH: Common Hardware.
3. Route all Tubing to Drip Funnel, Item 15.
4. Items A1-A3 included only in pre-trimmed valve assemblies as applicable; otherwise ordered separately.

FIGURE 10
8 INCH (DN200) DV-5 WITH REMOTE-RESETTING TRIM
UL

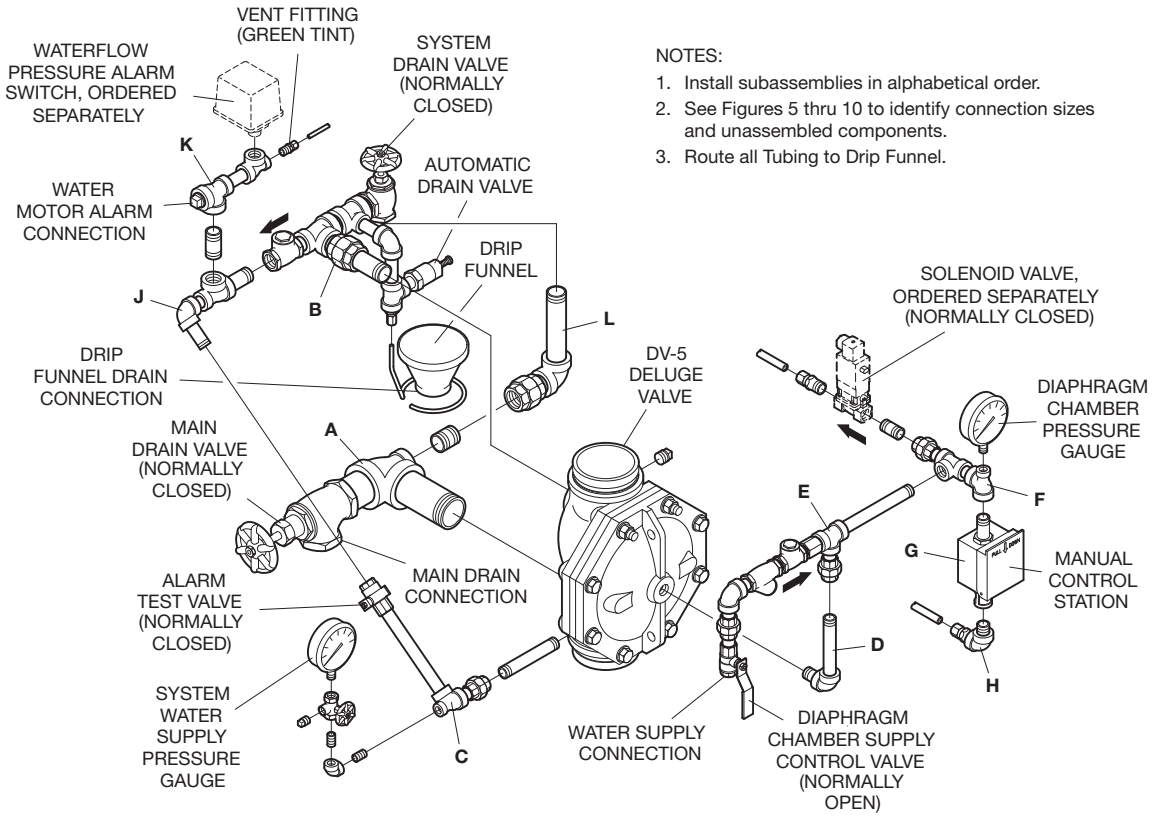


FIGURE 11
DV-5 WITH REMOTE-RESETTING TRIM
UL LISTED
COMPONENT FUNCTIONS AND SEMI-PRESSEMBLED TRIM ARRANGEMENT

NO.	DESCRIPTION	QTY.	P/N
1	Nickel Plated Copper Tube 15 x 1 mm Elbow 90°; 370 mm x 225 mm	1	WS00000096
2	Copper Pipe 10 x 12 mm Length 900 mm	2	WS00000007
3	Pressure Relief Hose 3 x 6 Length 1,2 m; Transparant	2	WS00000004
4	Adapter Tee Brass Male Thread DN20 Female DN20; Type 113; Nickel Plated	2	TTEMEEFN
5	Adapter Tee Brass Female Thread DN20 x DN20 x DN20, Type 111; Nickel Plated	2	TTEEEFN
6	Adapter Tee Brass Male Thread DN15 Female DN15 x DN15; Type 113; Nickel Plated	4	TTDMDDFN
7	Adapter Tee Brass Female Thread DN15 x DN15 x DN15; Type 100 Nickel Plated	1	TTDDDFN
8	Reduce Threaded Fitting, Nickel Plated Brass, Thread Male DN20 x Thread Female DN15 Type 100	2	RTEMDFN
9	Reduce Threaded Fitting, Nickel Plated Brass, Thread Male DN15 x Thread Male DN20 Type 100	1	RTEDMN
10	Adapter Reduce, Brass Male Thread DN15 x Female Thread DN8 Type 100 Nickel Plated	3	RTDMBFN
11	Elbow threaded fitting nickel plated brass thread male dn15 x thread female dn15, type 100	2	ETDMDFN
12	Elbow Threaded Fitting, Nickel Plated Brass, Thread Male DN15 x DN15, Type 100	1	ETDDMN
13	Elbow Threaded Fitting, Nickel Plated Brass, Thread Female DN15 x DN15, Type 100	1	ETDDFN
14	Adapter Fitting, Nickel Plated Brass Thread Male DN20 x DN20 Type 102	2	ATEEMN
15	Adapter Compr Fitting Brass Male Thread DN15 x Compr Fitt 15 mm, Type 200 Nickel Plated	2	ATDMCON
16	Adapter Fitting, Nickel Plated Brass Thread Male DN15 x DN15 Type 100	4	ATDDMN
17	Pipe Nipple - 3/4" SS316 Male BSPT Length 80 mm	2	AP80E4
18	Pipe Nipple - 1/2" SS316 Male BSPT Length 60 mm	1	AP60D4
19	Pipe Nipple - 1/2" SS316 Male BSPT Length 200 mm	1	AP200D4
20	Pipe Nipple - 3/4" SS316 Male BSPT Length 160 mm	1	AP160D4
21	Pipe Nipple - 3/4" SS316 Male BSPT Length 100 mm	1	AP100E4
22	Pipe Nipple - 1/2" SS316 Male BSPT Length 100 mm	1	AP100D4
23	Pipe Fitting - Union Fig 341 Male/Female BSP Size 1/2" Finish: Stainless Steel	2	A341D4
24	Malleable Fitting - Plug Fig 291 Male BSP Size 1/2" Finish: Galvanized	1	A291D2
25	Malleable Fitting - Plug Fig 290 Male BSP Size 3/4" Finish: Galvanized	1	A290E2
26	Swing Type Check Valve 1/2" Type 99S	1	460491004
27	Straight Tube Connector 12 mm x 1/2" Male Nr 661273	2	81900211
28	Nipple 1/2" M/F Orifice 3 mm Brass	1	700485
29	Ball Valve Size DN15 - 1/2" ISO 7/1 Full Bore PN40 Venthole Threaded M5	2	59304FO
30	DV-5 Deluge Valve; Diaphragm Style; 17,2 bar; Size 2"; Grv x Grv (60 mm) ISO Ports; 3/4" ISO Drain	1	524771910
31	Break Station Model MC-1 for Manual Release ; Galva Fittings	1	522892001
32	Swing Type Check Valve 3/4" Type 99S	1	460491005
33	Elbow WES 3 mm/ M5 (Rart Ref. 610470)	2	406012
34	Solenoid Valve 24 VDC 1/2" ISO Impuls w. Mech. Lock and Man. Emerg. Release	1	2460566
35	1/2" Self-Closing Drain Valve K-Factor Non Operated = 5 K-Factor Operated = 25	1	2162156
36	Strainer Y-Type; Fig 557; 1/2" NPT Connection; 50 Mesh; S304 Screen; Bronze Body	1	20005025
37	Ball Valve Fig. 1610 Full Bore DN20 - 3/4" BSP	2	1610000270
38	Ball Valve Fig. 1610 Full Bore DN15 - 1/2" BSP	2	1610000210
39	Pressure Switch Mod. PS10-1 Single Contact; 1/2" NPT Male	1	0260
40	Water Gauge 1/4" NPT Male 0 - 300 PSI / 0 - 21 bar	3	025500013

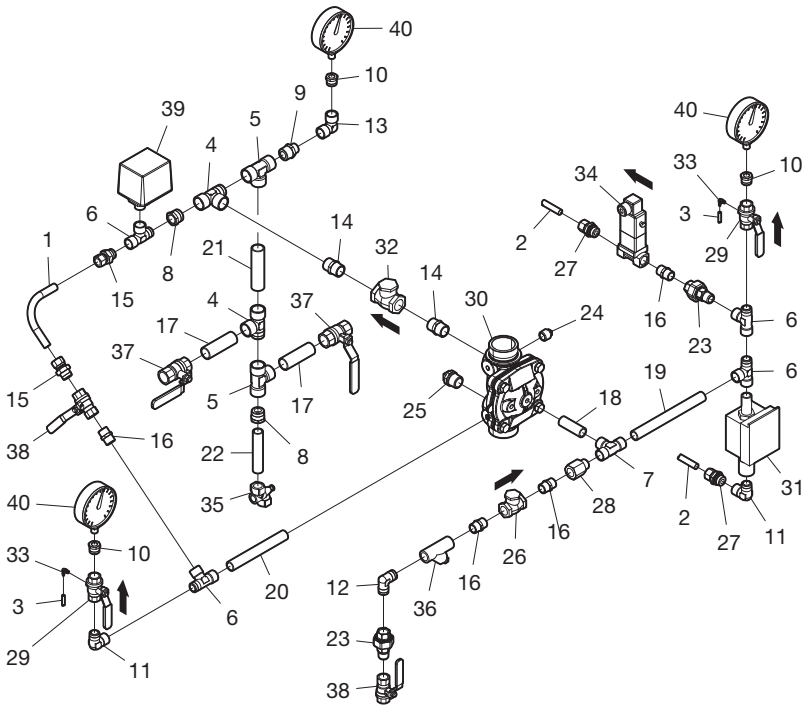


FIGURE 12
2 INCH (DN50) DV-5 WITH REMOTE-RESETTING TRIM
VdS
(Available for European Markets Only)

NO.	DESCRIPTION	QTY.	P/N
1	Nickel Plated Copper Tube 15 x 1 mm Elbow 90°; 370 mm x 225 mm	1	WS00000096
2	Copper Pipe 10 x 12 mm Length 900 mm	2	WS00000007
3	Pressure Relief Hose 3 x 6 Length 1,2 m; Transparant	2	WS00000004
4	Adapter Tee Brass Male Thread DN20 Female DN20; Type 113; Nickel Plated	2	TTEMEEFN
5	Adapter Tee Brass Female Thread DN20 x DN20 x DN20, Type 111; Nickel Plated	2	TTEEEFN
6	Adapter Tee Brass Male Thread DN15 Female DN15 x DN15; Type 113; Nickel Plated	4	TTDMDDFN
7	Adapter Tee Brass Female Thread DN15 x DN15 x DN15; Type 100 Nickel Plated	1	TTDDDFN
8	Reduce Threaded Fitting, Nickel Plated Brass, Thread Male DN20 x Thread Female DN15 Type 100	2	RTEMDFN
9	Reduce Threaded Fitting, Nickel Plated Brass, Thread Male DN15 x Thread Male DN20 Type 100	1	RTEDMN
10	Adapter Reduce, Brass Male Thread DN15 x Female Thread DN8 Type 100 Nickel Plated	3	RTDMBFN
11	Elbow threaded fitting nickel plated brass thread male dn15 x thread female dn15, type 100	2	ETDMDFN
12	Elbow Threaded Fitting, Nickel Plated Brass, Thread Male DN15 x DN15, Type 100	1	ETDDMN
13	Elbow Threaded Fitting, Nickel Plated Brass, Thread Female DN15 x DN15, Type 100	1	ETDDFN
14	Adapter Fitting, Nickel Plated Brass Thread Male DN20 x DN20 Type 102	1	ATEEMN
15	Adapter Compr Fitting Brass Male Thread DN15 x Compr Fitt 15 mm, Type 200 Nickel Plated	2	ATDMCON
16	Adapter Fitting, Nickel Plated Brass Thread Male DN15 x DN15 Type 100	3	ATDDMN
17	Pipe Nipple - 3/4" SS316 Male BSPT Length 80 mm	2	AP80E4
18	Pipe Nipple - 1/2" SS316 Male BSPT Length 80 mm	1	AP80D4
19	Pipe Nipple - 1/2" SS316 Male BSPT Length 60 mm	1	AP60D4
20	Pipe Nipple - 1/2" SS316 Male BSPT Length 200 mm	1	AP200D4
21	Pipe Nipple - 3/4" SS316 Male BSPT Length 160 mm	1	AP160D4
22	Pipe Nipple - 3/4" SS316 Male BSPT Length 100 mm	1	AP100E4
23	Pipe Nipple - 1/2" SS316 Male BSPT Length 100 mm	1	AP100D4
24	Pipe Fitting - Union Fig 341 Male/Female BSP Size 1/2" Finish: Stainless Steel	2	A341D4
25	Malleable Fitting - Plug Fig 291 Male BSP Size 1/2" Finish: Galvanized	1	A291D2
26	Malleable Fitting - Plug Fig 290 Male BSP Size 1-1/4" Finish: Galvanized	1	A290G2
27	Swing Type Check Valve 1/2" Type 99S	1	460491004
28	Straight Tube Connector 12 mm x 1/2" Male Nr 661273	2	81900211
29	Nipple 1/2" M/F Orifice 3 mm Brass	1	700485
30	Ball Valve Size DN15 - 1/2" ISO 7/1 Full Bore PN40 Venthole Threaded M5	2	59304FO
31	DV-5 Deluge Valve; Diaphragm Style; 17,2 bar; Size 3"; Grv x Grv (89 mm) ISO Ports; 1-1/4" ISO Drain	1	524771922
32	Break Station Model MC-1 for Manual Release ; Galva Fittings	1	522892001
33	Swing Type Check Valve 3/4" Type 99S	1	460491005
34	Elbow WES 3 mm/ M5 (Rart Ref. 610470)	2	406012
35	Solenoid Valve 24 VDC 1/2" ISO Impuls w. Mech. Lock and Man. Emerg. Release	1	2460566
36	1/2" Self-Closing Drain Valve K-Factor Non Operated = 5 K-Factor Operated = 25	1	2162156
37	Strainer Y-Type; Fig 557; 1/2" NPT Connection; 50 Mesh; S304 Screen; Bronze Body	1	20005025
38	Ball Valve Fig. 1610 Full Bore DN20 - 3/4" BSP	2	1610000270
39	Ball Valve Fig. 1610 Full Bore DN15 - 1/2" BSP	2	1610000210
40	Pressure Switch Mod. PS10-1 Single Contact; 1/2" NPT Male	1	0260
41	Water Gauge 1/4" NPT Male 0 - 300 PSI / 0 - 21 bar	3	025500013

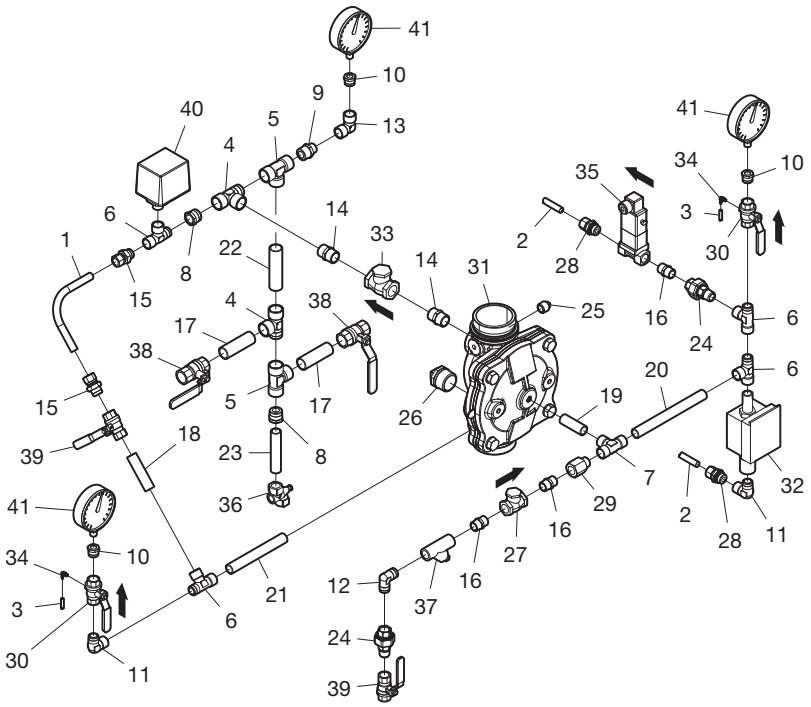


FIGURE 13
3 INCH (DN80) DV-5 WITH REMOTE-RESETTING TRIM
VdS
(Available for European Markets Only)

NO.	DESCRIPTION	QTY.	P/N
1	Nickel Plated Copper Tube 15 x 1 mm Elbow 90°; 370 mm x 225 mm	1	WS00000096
2	Copper Pipe 10 x 12 mm Length 900 mm	2	WS00000007
3	Pressure Relief Hose 3 x 6 Length 1,2 m; Transparant	2	WS00000004
4	Adapter Tee Brass Male Thread DN20 Female DN20; Type 113; Nickel Plated	2	TTEMEEFN
5	Adapter Tee Brass Female Thread DN20 x DN20 x DN20, Type 111; Nickel Plated	2	TTEEEFN
6	Adapter Tee Brass Male Thread DN15 Female DN15 x DN15; Type 113; Nickel Plated	4	TTDMDDFN
7	Adapter Tee Brass Female Thread DN15 x DN15 x DN15; Type 100 Nickel Plated	1	TTDDDFN
8	Reduce Threaded Fitting, Nickel Plated Brass Thread Male DN20 x Male DN25	1	RTFEMN
9	Reduce Threaded Fitting, Nickel Plated Brass, Thread Male DN20 x Thread Female DN15 Type 100	2	RTEMDFN
10	Reduce Threaded Fitting, Nickel Plated Brass, Thread Male DN15 x Thread Male DN20 Type 100	1	RTEDMN
11	Adapter Reduce, Brass Male Thread DN15 x Female Thread DN8 Type 100 Nickel Plated	3	RTDMBFN
12	Elbow threaded fitting nickel plated brass thread male dn15 x thread female dn15, type 100	2	ETDMDFN
13	Elbow Threaded Fitting, Nickel Plated Brass, Thread Male DN15 x DN15, Type 100	1	ETDDMN
14	Elbow Threaded Fitting, Nickel Plated Brass, Thread Female DN15 x DN15, Type 100	1	ETDDFN
15	Adapter Fitting, Nickel Plated Brass Thread Male DN20 x DN20 Type 102	1	ATEEMN
16	Adapter Compr Fitting Brass Male Thread DN15 x Compr Fitt 15 mm, Type 200 Nickel Plated	2	ATDMCON
17	Adapter Fitting, Nickel Plated Brass Thread Male DN15 x DN15 Type 100	3	ATDDMN
18	Pipe Nipple - 1/2" SS316 Male BSPT Length 60 mm	1	AP60D4
19	Pipe Nipple - 1/2" SS316 Male BSPT Length 300 mm	1	AP300D4
20	Pipe Nipple - 1/2" SS316 Male BSPT Length 140 mm	2	AP140D4
21	Pipe Nipple - 1/2" SS316 Male BSPT Length 120 mm	2	AP120D4
22	Pipe Nipple - 3/4" SS316 Male BSPT Length 100 mm	3	AP100E4
23	Pipe Fitting - Union Fig 341 Male/Female BSP Size 1/2" Finish: Stainless Steel	2	A341D4
24	Malleable Fitting - Plug Fig 291 Male BSP Size 2" Finish: Galvanized	1	A291I2
25	Malleable Fitting - Plug Fig 291 Male BSP Size 1/2" Finish: Galvanized	1	A291D2
26	Swing Type Check Valve 1/2" Type 99S	1	460491004
27	Straight Tube Connector 12 mm x 1/2" Male Nr 661273	2	81900211
28	Nipple 1/2" M/F Orifice 3 mm Brass	1	700485
29	Ball Valve Size DN15 - 1/2" ISO 7/1 Full Bore PN40 Venthole Threaded M5	2	59304FO
30	DV-5 Deluge Valve; Diaphragm Style; 17,2 bar; Size 4"; Grv x Grv (114 mm) ISO Ports; 2" ISO Drain	1	524771923
31	Break Station Model MC-1 for Manual Release ; Galva Fittings	1	522892001
32	Swing Type Check Valve 3/4" Type 99S	1	460491005
33	Elbow WES 3 mm/ M5 (Rart Ref. 610470)	2	406012
34	Solenoid Valve 24 VDC 1/2" ISO Impuls w. Mech. Lock and Man. Emerg. Release	1	2460566
35	1/2" Self-Closing Drain Valve K-Factor Non Operated = 5 K-Factor Operated = 25	1	2162156
36	Strainer Y-Type; Fig 557; 1/2" NPT Connection; 50 Mesh; S304 Screen; Bronze Body	1	20005025
37	Ball Valve Fig. 1610 Full Bore DN20 - 3/4" BSP	2	1610000270
38	Ball Valve Fig. 1610 Full Bore DN15 - 1/2" BSP	2	1610000210
39	Pressure Switch Mod. PS10-1 Single Contact; 1/2" NPT Male	1	0260
40	Water Gauge 1/4" NPT Male 0 - 300 PSI / 0 - 21 bar	3	025500013

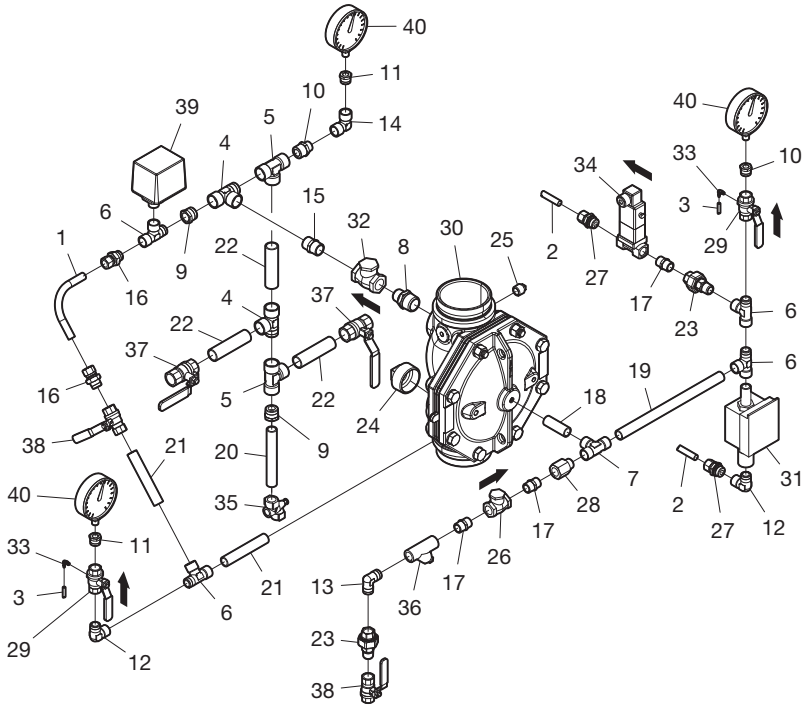


FIGURE 14
4 INCH (DN100) DV-5 WITH REMOTE-RESETTING TRIM
VdS
(Available for European Markets Only)

NO.	DESCRIPTION	QTY.	P/N
1	Nickel Plated Copper Tube 15 x 1 mm Elbow 90°; 370 mm x 225 mm	1	WS00000096
2	Copper Pipe 10 x 12 mm Length 900 mm	2	WS00000007
3	Pressure Relief Hose 3 x 6 Length 1,2 m; Transparant	2	WS00000004
4	Adapter Tee Brass Male Thread DN20 Female DN20; Type 113; Nickel Plated	2	TTEMEEFN
5	Adapter Tee Brass Female Thread DN20 x DN20 x DN20, Type 111; Nickel Plated	2	TTEEEFN
6	Adapter Tee Brass Male Thread DN15 Female DN15 x DN15; Type 113; Nickel Plated	4	TTDMDDFN
7	Adapter Tee Brass Female Thread DN15 x DN15 x DN15; Type 100 Nickel Plated	1	TTDDDFN
8	Reduce Threaded Fitting, Nickel Plated Brass Thread Male DN20 x Male DN25	1	RTFEMN
9	Reduce Threaded Fitting, Nickel Plated Brass, Thread Male DN20 x Thread Female DN15 Type 100	2	RTEMDFN
10	Reduce Threaded Fitting, Nickel Plated Brass, Thread Male DN15 x Thread Male DN20 Type 100	1	RTEDMN
11	Adapter Reduce, Brass Male Thread DN15 x Female Thread DN8 Type 100 Nickel Plated	3	RTDMBFN
12	Elbow threaded fitting nickel plated brass thread male dn15 x thread female dn15, type 100	2	ETDMDFN
13	Elbow Threaded Fitting, Nickel Plated Brass, Thread Male DN15 x DN15, Type 100	1	ETDDMN
14	Elbow Threaded Fitting, Nickel Plated Brass, Thread Female DN15 x DN15, Type 100	1	ETDDFN
15	Adapter Fitting, Nickel Plated Brass Thread Male DN20 x DN20 Type 102	1	ATEEMN
16	Adapter Compr Fitting Brass Male Thread DN15 x Compr Fitt 15 mm, Type 200 Nickel Plated	2	ATDMCON
17	Adapter Fitting, Nickel Plated Brass Thread Male DN15 x DN15 Type 100	3	ATDDMN
18	Pipe Nipple - 3/4" SS316 Male BSPT Length 80 mm	2	AP80E4
19	Pipe Nipple - 1/2" SS316 Male BSPT Length 60 mm	1	AP60D4
20	Pipe Nipple - 1/2" SS316 Male BSPT Length 300 mm	1	AP300D4
21	Pipe Nipple - 1/2" SS316 Male BSPT Length 140 mm	2	AP140D4
22	Pipe Nipple - 1/2" SS316 Male BSPT Length 120 mm	2	AP120D4
23	Pipe Nipple - 3/4" SS316 Male BSPT Length 100 mm	1	AP100E4
24	Pipe Fitting - Union Fig 341 Male/Female BSP Size 1/2" Finish: Stainless Steel	2	A341D4
25	Malleable Fitting - Plug Fig 291 Male BSP Size 2" Finish: Galvanized	1	A291I2
26	Malleable Fitting - Plug Fig 291 Male BSP Size 1/2" Finish: Galvanized	1	A291D2
27	Swing Type Check Valve 1/2" Type 99S	1	460491004
28	Straight Tube Connector 12 mm x 1/2" Male Nr 661273	2	81900211
29	Nipple 1/2" M/F Orifice 4,76 mm Brass	1	922101011
30	Ball Valve Size DN15 - 1/2" ISO 7/1 Full Bore PN40 Venthole Threaded M5	2	59304FO
31	DV-5 Deluge Valve; Diaphragm Style; 17,2 bar; Size 6"; Grv x Grv (168 mm) ISO Ports; 2" ISO Drain	1	524771925
32	Break Station Model MC-1 for Manual Release ; Galva Fittings	1	522892001
33	Swing Type Check Valve 3/4" Type 99S	1	460491005
34	Elbow WES 3 mm/ M5 (Rart Ref. 610470)	2	406012
35	Solenoid Valve 24 VDC 1/2" ISO Impuls w. Mech. Lock and Man. Emerg. Release	1	2460566
36	1/2" Self-Closing Drain Valve K-Factor Non Operated = 5 K-Factor Operated = 25	1	2162156
37	Strainer Y-Type; Fig 557; 1/2" NPT Connection; 50 Mesh; S304 Screen; Bronze Body	1	20005025
38	Ball Valve Fig. 1610 Full Bore DN20 - 3/4" BSP	2	1610000270
39	Ball Valve Fig. 1610 Full Bore DN15 - 1/2" BSP	2	1610000210
40	Pressure Switch Mod. PS10-1 Single Contact; 1/2" NPT Male	1	0260
41	Water Gauge 1/4" NPT Male 0 - 300 PSI / 0 - 21 bar	3	025500013

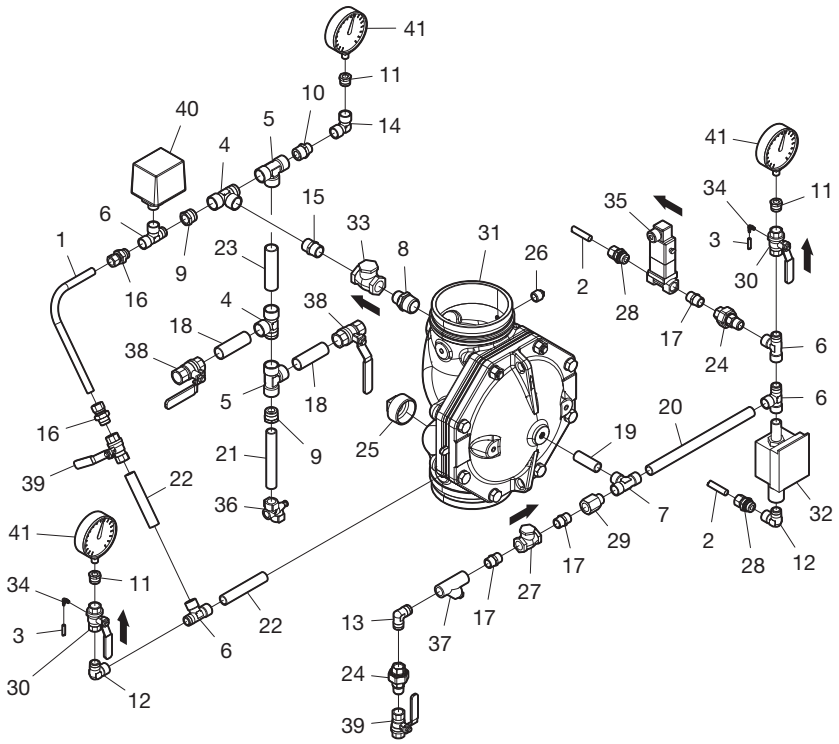


FIGURE 15
6 INCH (DN150) DV-5 WITH REMOTE-RESETTING TRIM
VdS
(Available for European Markets Only)

NO.	DESCRIPTION	QTY.	P/N
1	Nickel Plated Copper Tube 15 x 1 mm Elbow 90°; 370 mm x 225 mm	1	WS00000096
2	Copper Pipe 10 x 12 mm Length 900 mm	2	WS00000007
3	Pressure Relief Hose 3 x 6 Length 1,2 m; Transparant	2	WS00000004
4	Adapter Tee Brass Male Thread DN20 Female DN20; Type 113; Nickel Plated	2	TTEMEEFN
5	Adapter Tee Brass Female Thread DN20 x DN20 x DN20, Type 111; Nickel Plated	2	TTEEEFN
6	Adapter Tee Brass Male Thread DN15 Female DN15 x DN15; Type 113; Nickel Plated	4	TTDMDDFN
7	Adapter Tee Brass Female Thread DN15 x DN15 x DN15; Type 100 Nickel Plated	1	TTDDDFN
8	Reduce Threaded Fitting, Nickel Plated Brass Thread Male DN20 x Male DN25	1	RTFEMN
9	Reduce Threaded Fitting, Nickel Plated Brass, Thread Male DN20 x Thread Female DN15 Type 100	3	RTEMDFN
10	Adapter Reduce, Brass Male Thread DN15 x Female Thread DN8 Type 100 Nickel Plated	3	RTDMBFN
11	Elbow threaded fitting nickel plated brass thread male dn15 x thread female dn15, type 100	2	ETDMDFN
12	Elbow Threaded Fitting, Nickel Plated Brass, Thread Male DN15 x DN15, Type 100	1	ETDDMN
13	Elbow Threaded Fitting, Nickel Plated Brass, Thread Female DN15 x DN15, Type 100	1	ETDDFN
14	Adapter Fitting, Nickel Plated Brass Thread Male DN20 x DN20 Type 102	1	ATEEMN
15	Adapter Compr Fitting Brass Male Thread DN15 x Compr Fitt 15 mm, Type 200 Nickel Plated	2	ATDMCON
16	Adapter Fitting, Nickel Plated Brass Thread Male DN15 x DN15 Type 100	3	ATDDMN
17	Pipe Nipple - 3/4" SS316 Male BSPT Length 80 mm	2	AP80E4
18	Pipe Nipple - 1/2" SS316 Male BSPT Length 60 mm	1	AP60D4
19	Pipe Nipple - 1/2" SS316 Male BSPT Length 300 mm	1	AP300D4
20	Pipe Nipple - 1/2" SS316 Male BSPT Length 140 mm	2	AP140D4
21	Pipe Nipple - 1/2" SS316 Male BSPT Length 120 mm	2	AP120D4
22	Pipe Nipple - 3/4" SS316 Male BSPT Length 100 mm	1	AP100E4
23	Pipe Fitting - Union Fig 341 Male/Female BSP Size 1/2" Finish: Stainless Steel	2	A341D4
24	Malleable Fitting - Plug Fig 291 Male BSP Size 2" Finish: Galvanized	1	A291I2
25	Malleable Fitting - Plug Fig 291 Male BSP Size 1/2" Finish: Galvanized	1	A291D2
26	Swing Type Check Valve 1/2" Type 99S	1	460491004
27	Straight Tube Connector 12 mm x 1/2" Male Nr 661273	2	81900211
28	Nipple 1/2" M/F Orifice 4,76 mm Brass	1	922101011
29	Ball Valve Size DN15 - 1/2" ISO 7/1 Full Bore PN40 Venthole Threaded M5	2	59304FO
30	DV-5 Deluge Valve; Diaphragm Style; 17.2 bar; Size 8"; Grv x Grv (219 mm) ISO Ports; 2" ISO Drain	1	524771926
31	Break Station Model MC-1 for Manual Release ; Galva Fittings	1	522892001
32	Swing Type Check Valve 3/4" Type 99S	1	460491005
33	Elbow WES 3 mm/ M5 (Rart Ref. 610470)	2	406012
34	Solenoid Valve 24 VDC 1/2" ISO Impuls w. Mech. Lock and Man. Emerg. Release	1	2460566
35	1/2" Self-Closing Drain Valve K-Factor Non Operated = 5 K-Factor Operated = 25	1	2162156
36	Strainer Y-Type; Fig 557; 1/2" NPT Connection; 50 Mesh; S304 Screen; Bronze Body	1	20005025
37	Ball Valve Fig. 1610 Full Bore DN20 - 3/4" BSP	2	1610000270
38	Ball Valve Fig. 1610 Full Bore DN15 - 1/2" BSP	2	1610000210
39	Pressure Switch Mod. PS10-1 Single Contact; 1/2" NPT Male	1	0260
40	Water Gauge 1/4" NPT Male 0 - 300 PSI / 0 - 21 bar	3	025500013

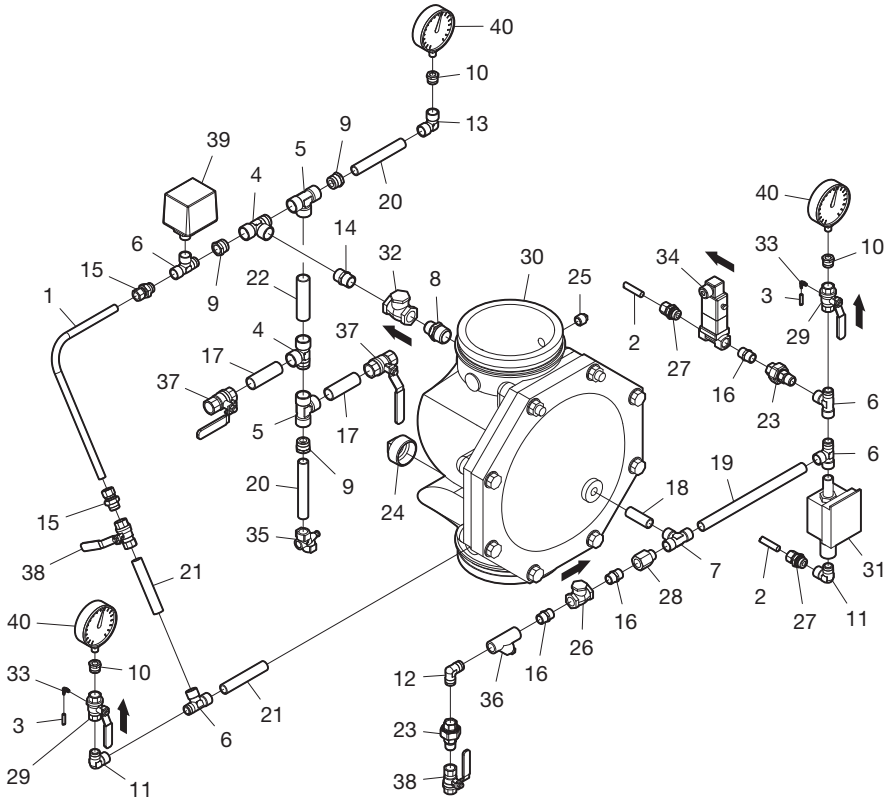
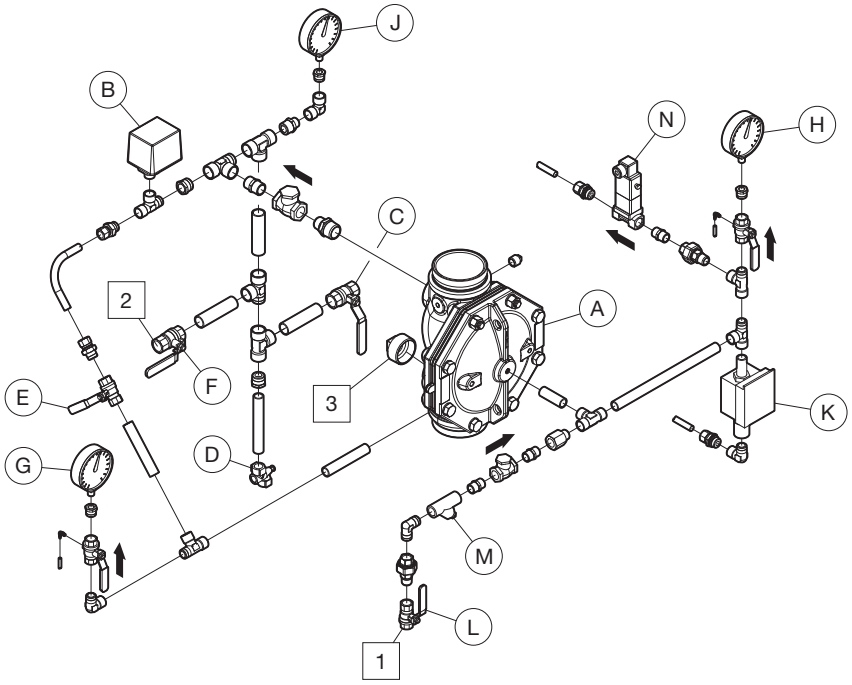


FIGURE 16
8 INCH (DN200) DV-5 WITH REMOTE-RESETTING TRIM
VdS
(Available for European Markets Only)



Item	Description
A	DV-5 Valve
B	Waterflow Switch
C	System Drain Valve
D	Automatic Drain Valve
E	Alarm Test Valve
F	Alarm Control Valve
G	Water Supply Gauge
H	Diaphragm Gauge
J	System Gauge
K	Manual Control Station
L	Diaphragm Supply Valve
M	Diaphragm Supply Strainer
N	Solenoid Valve
1	Diaphragm Supply Connection
2	Water Motor Alarm Connection
3	Main Drain Connection

FIGURE 17
DV-5 WITH REMOTE-RESETTING TRIM
VdS COMPONENT FUNCTIONS
(Available for European Markets Only)

Care and Maintenance

TYCO DV-5 Deluge Valves with Remote-Resetting Trim must be maintained and serviced in accordance with this section.

Perform the following procedures and inspections as indicated, in addition to any specific requirements of the applicable authorities having jurisdiction (e.g., NFPA). Correct any impairment immediately.

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

Some procedures in this section result in the operation of the associated alarms. Notify the owner and the fire department, central station, or other signal station to which the alarms are connected before performing the tests.

When the system is using either a seawater or brackish water supply, internal and external inspection of the DV-5 Deluge Valve with Remote-Resetting Trim is essential. Parts showing any signs of corrosion must be replaced to ensure the integrity of the system.

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 any authorities having jurisdiction (e.g., NFPA). Contact the installing contractor or product manufacturer with 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.

Prior to performing inspection and/or maintenance procedures, it is recommended that those individuals responsible for the care and maintenance of the DV-5 Deluge Valve with Remote-Resetting Trim develop a working understanding of the system in general. These instructions, as well as individual instructions for the deluge valve, solenoid valve, manual control station, switches, and pressure maintenance devices, should be reviewed.

Annual Operation Test Procedure

At least once a year, verify proper operation of the DV-5 Deluge Valve with Remote-Resetting Trim (that is, opening of the deluge valve as though a fire condition exists) as follows.

Step 1. To prevent water from flowing beyond the riser, perform the following steps:

- Close the Main Control/Shut-Off Valve.
- Open the Main Drain Valve.
- Open the Main Control/Shut-Off Valve one turn beyond the position at which water just begins to flow from the Main Drain Valve.
- Close the Main Drain Valve.

Step 2. Test the Releasing Panel in accordance with the manufacturer's instructions to energize the Solenoid Valve.

Note: *Be prepared to quickly perform Steps 3, 4, and 5 if water must be prevented from flowing beyond the riser.*

Step 3. Verify that the deluge valve has tripped as indicated by the flow of water into the system.

Step 4. Close the Main Control/Shut-Off Valve.

Step 5. Close the Diaphragm Chamber Supply Control Valve.

Step 6. Reset the DV-5 Deluge Valve with Remote-Resetting Trim in accordance with the Valve Setting Procedure in this data sheet.

Quarterly Solenoid Valve Test Procedure for Electric Activation

Proper operation of the Solenoid Valve for electric actuation should be verified at least quarterly as follows.

Step 1. Close the Main Control/ Shut-Off Valve.

Step 2. Open the Main Drain Valve.

Step 3. Operate the DV-5 Deluge Valve with Remote-Resetting Trim by operating the electric pull station adjacent to the Control Panel.

Step 4. Verify that the flow of water from the Solenoid Valve drain connection increases to a full flow.

Step 5. Verify that the Diaphragm Chamber pressure has decreased to below 25% of the water supply pressure.

Step 6. Reset the operated pull station and then reset the Control Panel, to close the Solenoid Valve. Check the Solenoid Valve drain for leaks. Correct any leaks before proceeding to the next step.

Step 7. Slowly open the Main Control/ Shut-Off Valve.

Close the Main Drain Valve as soon as water discharges from the drain connection.

Observe the Automatic Drain Valve for leaks.

- If there are leaks, determine/correct the cause of the leakage problem.
- If there are no leaks, the DV-5 Deluge Valve with Remote-Resetting Trim is ready to place in service and the Main Control/Shut-Off Valve must then be fully opened.

Quarterly Waterflow Alarm Test Procedure

Testing system waterflow alarms should be performed quarterly.

To test the waterflow alarm, open the Alarm Test Valve, which allows a flow of water to the Pressure Alarm Switch and/or Water Motor Alarm.

Upon satisfactory completion of the test, close the Alarm Test Valve.

Internal Valve Inspection

Once every five years during the annual operational test procedure and prior to the DV-5 Valve being reset, the interior of the DV-5 Valve must be cleaned and inspected for wear and damage. Damaged or worn parts must be replaced. (Replacement of the diaphragm every ten years is recommended, or more frequently if inspections and/or wear and tear warrant more frequent replacement.)

When reinstalling the Diaphragm Cover, the Diaphragm Cover Fasteners must be uniformly and securely tightened using a cross-draw sequence. Inspect to ensure all of the Diaphragm Cover fasteners are securely tightened.

After tightening, double check to make certain that all of the Diaphragm Cover Fasteners are securely tightened.

NOTES

If the water supply contains chemicals which tend to attack a Nylon fabric reinforced, natural rubber or the five year inspection indicates a build-up of debris within the Deluge Valve that could affect its proper operation, then the frequency of the internal valve inspection procedure must be appropriately increased. If the system has a seawater or brackish water supply, then the frequency of the internal valve inspection procedure must be appropriately increased. (An annual internal valve inspection for a system having a seawater or brackish water supply is recommended.)

With reference to Figure 5, make certain that the Diaphragm is correctly oriented; otherwise, the DV-5 Deluge Valve cannot be properly set.

Under-tightening the Diaphragm Cover Bolts can result in internal and external leakage.

The V-Ring is attached to the Diaphragm at the factory. If, during an internal valve inspection, the V-Ring is discovered to be detached from the Diaphragm, be advised that the V-Ring is a required valve component and that detachment will not affect normal valve operation or performance. Should the V-Ring become detached, reinstall it between the Diaphragm and Diaphragm Cover concentrically as shown in Figure 5.

NOTE: *Do not apply adhesives, lubricants or other substances to the Diaphragm, V-Ring or Valve Body.*

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 description and Part Number (P/N).

Fully Assembled DV-5 Deluge Valve with Remote-Resetting Trim (Valve Included)

Note that "Galvanized" material is standard. Refer to the Separately Ordered Parts section for parts that are required but ordered separately.

- UL Trim and Valve
- Specify (size), TYCO Fully Assembled DV-5 Deluge Valve with Remote-Resetting Trim, and P/N (Table C)
- VdS Trim and Valve (Available for European Markets Only)
- Specify (size), TYCO Fully Assembled DV-5 Deluge Valve with Remote-Resetting Trim, and P/N (Table D)

Semi-Preassembled DV-5 Deluge Valve with Remote-Resetting Trim (UL Only) (Valve Ordered Separately)

Specify Trim and Valve as follows. Refer to the Separately Ordered Parts section for parts that are required but ordered separately.

- Specify (size) Semi-Preassembled DV-5 Deluge Valve with Remote-Resetting Trim, and P/N (specify). Note that "Galvanized" material is standard.

2 inch (DN50)
Galvanized . . . . . P/N 52-477-2-111
3 inch (DN80)
Galvanized . . . . . P/N 52-477-2-112
4 inch (DN100)
Galvanized . . . . . P/N 52-477-2-114
6 inch (DN150)
Galvanized . . . . . P/N 52-477-2-115
8 inch (DN200)
Galvanized . . . . . P/N 52-477-2-116

- Specify (size) DV-5 Deluge Valve. Refer to technical data sheet TFP1305 for ordering information on this valve, which must be ordered separately for the Semi-Preassembled DV-5 Deluge Valve with Remote-Resetting Trim.

Separately Ordered Parts

The following parts for use with the DV-5 Deluge Valve with Remote-Resetting Trim are required but ordered separately.

Latching Solenoid Valve*
(Bürkert) . . . . . P/N 2460566
Model PS10-1 Waterflow Pressure
Alarm Switch (Potter). . . . . P/N 25700
Model PS10-1 Waterflow Pressure
Alarm Switch (European Conformity)
(Potter) . . . . . P/N 0260
Model PS10-2 Dual-Contact Waterflow
Pressure Alarm Switch (Potter) . . . . . P/N 25710
600 psi Water Pressure
Gauge. . . . . P/N 92-343-1-004

(*For additional Solenoid Valve options, refer to Technical Data Sheet TFP2180.)

Vertical Valve Trim (Ordered Separately for the Americas)

The Solenoid Valve and Waterflow Pressure Alarm Switch, provided as standard with only the VdS Trim, are for use in non-hazardous locations; that is, locations where potentially explosive atmospheres are not present. These parts are separately ordered for the UL Trim.

Accessories

Specify (description) for use with the DV-5 Deluge Valve with Remote-Resetting Trim and P/N (specify):

Model AD-2 Automatic Drain
(Ball Drip) Valve (TFP1632). . . P/N 52-789-1-004
Model WMA-1 Water Motor Alarm
Red Finish Gong (TFP921). . P/N 52-630-1-001P
Model WMA-1 Water Motor Alarm
Aluminum Finish Gong
(TFP921). . . . . P/N 52-630-2-001P
Model WMA-1 Water Motor Alarm
European CE Conformance
(TFP922). . . . . P/N 52-630-2-021

Replacement Parts

Specify (description) for use with the DV-5 Deluge Valve with Remote-Resetting Trim and P/N (specify). For a complete list of replacement parts, refer to Figures 6 to 10 (UL Trim) and Figures 12 to 16 (VdS Trim).

Model AD-1 Automatic Drain Valve
(TFP1630). . . . . P/N 52-793-2-004
Model MC-1 Manual Control Station
(TFP1382) . . . . . P/N 52-289-2-001
Model PS10-1 Waterflow Pressure
Alarm Switch (Potter). . . . . P/N 25700
Model PS10-1 Waterflow Pressure
Alarm Switch (European Conformity)
(Potter) . . . . . P/N 0260
Model PS10-2 Dual-Contact Waterflow
Pressure Alarm Switch (Potter) . . . . . P/N 25710
Water Pressure Gauge,
300 psi/2000 kPa. . . . . P/N 92-343-1-005
"Y" Strainer . . . . . P/N 52-353-1-005

P/N XX X XX XX X XX

DELUGE VALVE	
80	Flange x Flange*, PN 16
81	Flange x Flange**, ANSI
82	Flange x Groove*, PN 16
83	Flange x Groove**, ANSI
84	Groove x Groove*
86	Thread x Thread*, ISO 7/1
88	Flange x Flange**, PN 16
89	Flange x Groove**, PN 16
90	Groove x Groove**
92	Thread x Thread**, NPT

* ISO Ports
** NPT Ports

SIZE	
2	2 Inch (DN50)
3	3 Inch (DN80)
4	4 Inch (DN100)
6	6 Inch (DN150) (168,3 mm)
8	8 Inch (DN200)

TRIM	
80	UL

MAIN CONTROL / SHUT-OFF VALVE	
00	Ordered Separately
01	Shut Off Valve Included

SWITCH	
2	PS10-2

ACCESSORIES	
61	Remote-Resetting Latching Solenoid Valve*

* Other Solenoid Valves are available on request. Refer to TFP2180.

TABLE C
DV-5 WITH REMOTE-RESETTING TRIM
FULLY ASSEMBLED PART NUMBERS FOR UL TRIM

P/N XX X XX XX X XX

DELUGE VALVE	
80	Flange x Flange*, PN 16
81	Flange x Flange**, ANSI
82	Flange x Groove*, PN 16
83	Flange x Groove**, ANSI
84	Groove x Groove*
86	Thread x Thread*, ISO 7/1
88	Flange x Flange**, PN 16
89	Flange x Groove**, PN 16
90	Groove x Groove**
92	Thread x Thread**, NPT

* ISO Ports
** NPT Ports

SIZE	
2	2 Inch (DN50)
3	3 Inch (DN80)
4	4 Inch (DN100)
6	6 Inch (DN150) (168,3 mm)
8	8 Inch (DN200)

TRIM	
89	VdS

MAIN CONTROL / SHUT-OFF VALVE	
00	Ordered Separately

SWITCH	
1	PS10-1

ACCESSORIES	
61	Remote-Resetting Latching Solenoid Valve

TABLE D
DV-5 WITH REMOTE-RESETTING TRIM
FULLY ASSEMBLED PART NUMBERS FOR VdS TRIM
(Available for European Markets Only)

tyco Fire Protection Products